COMPUTING RESEARCH NEWS

Serving the Computing Research Community Since 1972

January 2000

Vol. 12/No. 1

Congress, White House Conclude Budget Deal for FY 2000

By Lisa Thompson

The first session of the 106th Congress concluded as so many others have in recent years—amid rancorous debate over the fine details of the federal budget. While both Congress and the President billed it as a struggle over the broad shape of fiscal policy, in reality the two sides were merely haggling over accounting gimmicks that would technically allow them to claim that they held overall spending below the budget caps, thus preserving the Social Security Trust Fund.

Eight of the 13 annual appropriations bills were completed without major incident by the end of October. During negotiations with the Administration on the other five, about \$8 billion in offsets had to be found to make way for spending increases in the high-priority programs of both sides. For instance, much of the "savings" was achieved by pushing the last military payday of the year into FY 2001. Another of the offsets agreed to

was a 0.38 percent across-the-board cut in discretionary spending for nearly all agencies, including those whose appropriations bills had already been passed. Republican appropriators had devised a larger across-the-board cut as a last-ditch effort to get all the spending bills passed while staying within the budget caps. When President Clinton opposed the indiscriminate budget reduction, calling it "mindless," the Republican leadership dug in and promoted it as a key element in their fight to reduce wasteful spending. The President made the symbolic concession, but pared the cut to about \$1.4 billion and insisted that agency heads have maximum flexibility in implementing it.

After the agreement, Congress rolled the remaining five appropriations bills into a \$390 billion "omnibus" package (HR 3194), stuffed it with goodies to placate Members who might otherwise vote against the measure, and passed it about seven weeks after the start of the fiscal year.

Both sides were able to declare victory and did. President Clinton, who obtained new funds for his high-profile police- and teacherhiring programs, described the deal as a "hard-won victory for the American people." First-year Speaker of the House Dennis Hastert (R-IL), not usually known for hyperbole, said, "It changed the way that this town does business and it probably will put an indelible mark on how this country will see its fiscal and financial future." In addition to the across-the-board cut, the Republicans can claim they increased funding for defense, veterans' programs, medical research, and education reform.

R&D Budgets Fare Well

In many ways, supporters of federal research and development programs can also claim victory in FY 2000, as Congress added \$4 billion to the R&D budget request. Despite its self-imposed budget caps, Congress is favorably disposed toward R&D spending, and the Republican leadership takes pains to outdo the Administration's efforts to emphasize its support for science. Many segments of the research community stand to benefit mightily from this political competition.

According to an analysis by the American Association for the Advancement of Science, total federal support for R&D will come to an estimated \$83.3 billion this year, 5 percent more than in FY 1999. However, three-quarters of the new funding is concentrated in the Department of Defense and the National Institutes of Health. Support for basic research is expected to total \$19.1 billion in FY 2000, an increase of \$1.8 billion or 10.6 percent over last year's levels and \$1 billion more than requested. Here again, however, life sciences and medical research at NIH account for nearly all of the increase

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Inside CRN

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NEC Research Institute Embarks on Second Decade

By C. William Gear and David L. Waltz

The first of a series of CRN articles describing the activities of CRA's industry laboratory members.

The NEC Research Institute (NECI), founded in 1989 to do high-risk, high-payoff basic research, celebrated its 10th anniversary in May. Located on the outskirts of Princeton, NJ, NECI is an American company, wholly owned by the NEC Corporation of Japan. It is funded entirely by NEC and reports to the leader of NEC's Central Research Labs. The Institute's goal is to have a major impact on computing and the Internet world through advances in computing paradigms, devices, algorithms, and applications.

NECI features diverse research projects in physics and computer science designed to encourage collaboration. A physicist constructs an apparatus for quantum cryptography, while a computer scientist does basic research on computability classes that would apply to quantum computation. A system based on a PC and a camera learns to identify actions that a person carries out with toy block (pick up, stack, drop, etc.) in real time. Biophysicists do wet-lab research for understanding the processing of signals from a fly's eye to its brain. Reinforcement learning software based on the metaphor of a market-based economy is developed, where cooperating problem-solving operators coevolve with other operators that create and "invest in" new problemsolving operators (and share in the returns that their creations generate).

NECI's primary "customer" is the R&D Group of the parent company. The Institute seeks patents on new technologies and passes those technologies to NEC. Recognizing the importance of enabling researchers in a fundamental research laboratory to interact openly with researchers from other institutions, the Institute encourages collaborations and publishes everything in the open literature. Many computer science research projects result in software of broad interest; the Institute has mechanisms for distributing software to other researchers, and is now initiating a licensing program for software of commercial interest. Like many other research laboratories, spin-offs are an option for some research results. Recently the Institute has begun to consider ways in which Institute research staff can be involved in an independent startup, in return for equity to be shared by the researchers and NEC

Projects currently under way at

NECI, approximately forty in all, include research in:

• ferroelectric materials for future DRAMs;

distributed object-oriented operating systems;
computer vision for face and

object recognition;
 self-assembling materials;

 new methods for cryptography that use queries about proofs in place of factoring of large numbers;
 new models for judging the

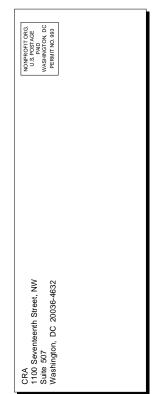
correctness of computations; and
highly efficient low-level

communications and caching software for building high-performance intelligent storage systems. NECI's organization is relatively

far, with all Principal Research Members (PRMs) reporting to a Vice President. Some PRMs work independently, but most employ from one to eight scientists, postdocs, research assistants, interns, and consultants. All PRMs—and many in their groups—hold Ph.Ds. Most PRMs are involved in one or more collaborations with faculty at universities in the United States and other countries, or with groups at NEC/Japan.

Virtually all NECI research projects originate with the PRMs. In a few cases, NEC personnel have requested NECI's help or collabora-

NEC Continued on Page 7



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Outstanding Undergraduate Award Winners

The Computing Research Association honors the recipients of the CRA Outstanding Undergraduate Awards competition for 2000, sponsored this year by Mitsubishi Electric Research Laboratory.

This year's selection committee included Janice Cuny, University of Oregon (Chair); Gregory Andrews, University of Arizona; and Larry Snyder, University of Washington.

Natalia Hernandez-Gardiol from Michigan State University received the Outstanding Female Undergraduate award. Luke Zettlemoyer, North Carolina State University, received the Outstanding Male Undergraduate award. Emma Brunskill, University of Washington, was the runner-up for the female award. Jonathan Cohen, Brown University, was named runner-up for the male award.

About the Winners

Natalia Hernandez-Gardiol is majoring in Computer Science and Engineering at Michigan State University. Her research focuses on Artificial Intelligence. In pursuing her research, she has worked in several different labs at MSU. In the Pattern



finger print

she

pressure components of a recognition system. In the Autonomous Agents Laboratory, she created a visualization tool for robot navigation. And in the Genetic Algorithms Lab, she worked on a system that learns to deduce the contents of web pages. Her current research is on hierarchical reinforcement learning methods for real-world learning problems. Natalia is the winner of the MSU 1999 Outstand-

ing Computer Science Senior Scholarship Award and the 1998 Outstanding Computer Science Junior Scholarship awards. She is a member of Tau Beta Pi. Natalia has also been a high school tutor and a community volunteer.

Luke Zettlemoyer is a senior at North Carolina State, majoring in Computer Science and Applied Mathematics. His research focuses on intelli-

He has

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frame

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ception detection in 3D learning environments, devising algorithms for real-time planning, developing image processing algorithms for the detection of visual occurrences, and developing methodologies for acquiring the task knowledge needed by collaborative software agents. He has worked as a researcher in the IMG Lab at NC State, on the NC State IntelliMedia Initiative, at the Mitsubishi Electric Research Lab, and in collaboration with researchers at the MIT Media Laboratory. Luke is a co-author on eight publications. He has been named as the NC State Department of Computer Science Faculty Senior Scholar and he is a member of Phi Beta Kappa, Pi Mu Epsilon, and Upsilon Pi Epsilon. Luke has been a teaching assistant and he has been active in campus leadership.

Emma Brunskill (Runner-Up) is majoring in Computer Engineering and Physics at the University of Washington. She has been a researcher on six different projects in the UW Departments of Computer Science, Physics, Geophysics, and Chemistry. She also worked as summer research student at CERN (the European Center for Particle Physics).

Dartmouth College

University of Virginia

Outstanding Undergraduate Award, Honorable Mention

Karolyn Abram Helen Anderson Iames Bruce Thomas Carley Ada Chan Elaine Cheong Dina Demner-Fushman James Fogarty Benjamin Hallen Theckla Louchios Elitza Maneva Kevin O'Neill Mark Plesko Monica Rogati Daniel Scholnick Mark Seigle Adnan Sulejmanpasic Gaurav Tewari Gary Yngve

visualiza tion tool for a new cluster member ship protocol. She is

on a

now



3D scenes, a system for dvnamic surface represen tation,

> and algorithms for drawing 3D curves. Ionathan

also worked, as a summer intern at Microsoft, on tools for cutting out selected objects or regions from images. He is a co-author of two papers. Jonathan has been a teaching

Carnegie Mellon University University of Maryland University of California, Berkeley University of Maryland Hunter College of the City University of New York Virginia Polytechnic Institute and State University University of Virginia University of Illinois at Urbana-Champaign California Institute of Technology University of British Columbia Carnegie Mellon University University of New Mexico Dartmouth College University of Pittsburgh University of Washington Massachusetts Institute of Technology Georgia Institute of Technology

Her Computer Science research focuses on scalable distributed systems, where she



on a mathematical analysis of that protocol. Emma has been named as the 1999 Mary Gates Scholar, the 1999 Anderson Scholar, and twice as a University of Washington Undergraduate Scholar. She has been a teaching assistant in both the Physics and the Computer Science departments and she has been active in the

CRA Undergraduate Mentor Program. Jonathan Cohen (Runner-Up) is majoring in Mathematics and Computer Science at Brown University. He joined the Brown University Graphics Laboratory during his freshman year where his research has focused on the "sketching" of 3D drawings. His work includes the development of an interface for rapid 2D sketching of arbitrarily complex

assistant and a high school math tutor.

CRA CONFERENCE AT SNOWBIRD ♦ JULY 9-11, 2000 ♦ SNOWBIRD, UTAH

The flagship conference for academic and research laboratory administrators interested in computing research issues. As usual, the NSF Research Infrastructure Workshop July 7-9 and the CRA Board of Directors meeting July 8-9 will precede the conference. Conference Sponsors: AAAI; ACM; Bell Labs, Lucent Technologies; Hewlett Packard; IBM; IEEE-Computer Society; Microsoft; and USENIX.

Sunday, July 9		CRA Academic		
Registration	2:00PM-7:30PM	Chairs:	Stephen Seidman, Colorado State Unive Mirek Truszczynski, University of Kentuc	
Workshop for New Department Chairs Chairs Chairs: Stuart Zweben, Ohio State University Kathleen McKeown, Columbia University	3:00PM-6:00PM	Government-Sp Chair:	onsored Initiatives on Women and Minori Doris Carver, Louisiana State University	ties
Welcome Reception	6:00PM-7:30PM	Potential topics:	er/Open Networking	5:00PM-6:00PM
Dinner Some Challenges for Computer Science as it Enters the 21st Speaker: William A. Wulf President, National Academy of Engineer	,	 Supporting dep Designing and A chair's fund- How to get and 	computer fluency courses partment infrastructure I moving into a new building traising responsibilities d use an associate chair	
Monday, July 10		 How to evaluate Keeping comp 	outer staff in the face of escalating salaries	
Breakfast Buffet	7:00AM-8:30AM	Dinner and Stat	e of the CRA Address	6:30PM-9:30PM
Registration	7:30AM-6:00PM	Speakers:	Edward Lazowska, University of Washing William Aspray, CRA guished Service and A. Nico Habermann.	
Welcome Speakers: John Stankovic, Academic Snowbird Cha	8:30AM-8:40AM ir	presented after di		iwards will be
University of Virginia Frances Allen, Industrial Snowbird Chair		Tuesday, Ju	ly 11	
IBM TJ Watson Research Center		Breakfast Buffet		7:00AM-8:30AM
JOINT ACADEMIC/INDUSTRIAL PLENARY SESSION I What Are the Important Research Areas for the New Millen Chair: Frances Allen, IBM TJ Watson Research C		PLENARY SES Educational Cha Chair: Speakers:	SION III llenges for the New Millennium James Kurose, University of Massachusett Ellis Horowitz, University of Southern Ca	
Break	10:10AM-10:30AM	Break		10:00AM-10:30AM
Workshop I (parallel sessions) Using Spin-offs and Venture Capital to Market New Ideas Chair: Peter Hart, Ricoh Silicon Valley Speakers: John Wheadon, Xerox Corp. Steve Socolof, Lucent Technologies	10:30AM-NOON	Industry Worksh Chair:	parallel sessions) op—Managing Industrial Research Labs Richard Waters, Mitsubishi Electric Rese rtment Accreditation	10:30AM-NOON arch
Reshaping Doctoral Education Chair: Jeffrey Vitter, Duke University		Chair:	Kenneth E. Martin, Computing Sciences prmation Technology Profession Headed?	Accreditation Board
CSTB Report on Research Agenda for the New Millennium Chair: Marjory Blumenthal, Computer Science a Telecommunications Board, National Res	nd	Chair:	Peter Denning, George Mason University ruitment and Retention of Woman and M Mary Lou Soffa, University of Pittsburgh	inorities
Department Management: Teaching, Research, and Manage Undergraduate Institutions Chair: Marion Harmon, Florida A&M Universit		New Governmer Chair:	at-Sponsored Research Initiatives TBA	
Software Engineering Licensing and Certification Chair: David Notkin, University of Washington		Luncheon [CRA Board Inte	eraction with Conference Participants]	NOON-1:30PM
Luncheon	NOON-1:30PM		parallel sessions) sity Collaboration	1:30PM-3:00PM
JOINT ACADEMIC/INDUSTRIAL	1:30PM-3:00PM	Chair:	Larry Snyder, University of Washington	
PLENARY SESSION II Impact of the Economic Development Imperative on Unive Chair: James Foley, Georgia Institute of Technol Speakers: Rick Adrion, National Science Foundati Randy Katz, University of California, Berl	ogy on	Chairs:	p Between Computer and Computational 3 Sidney Karin, University of California, S Robert Schnabel, University of Colorado Recruiting and Retaining Faculty, Graduar	an Diego 9 at Boulder
Break	3:00PM-3:30PM	Researchers Chair:	John Stankovic, University of Virginia	te ortugents, and
Workshop II (parallel sessions) Joint Academic/Industrial Workshop—University Venture C Initiatives	3:30PM-5:00PM Capital/Incubation	Speakers:	Tomasz Imielinski, Rutgers University Tomas Lozano-Perez, Massachusetts Insti Eric Manning, University of Victoria	tute of Technology
Chair: Azer Bestavros, Boston University Speakers: Wayne Hodges, Georgia Tech		Systems Adminis Chair:	stration Courses and the CS Curriculum David Parter, University of Wisconsin and	dSAGE
CS and IT Degree Programs Chair: Dennis Gannon, Indiana University		Distance Educati Chair:	on/Learning Ellis Horowitz, University of Southern Ca	alifornia
Government Support for Research in the New Millennium Chairs: Daniel Reed, University of Illinois, Urban Lisa Thompson, Director of Government		Workshop for D Chair:	eans Peter Freeman, Georgia Institute of Tech	1:30PM-9:00PM nology
This is a working draft of the program that will undergo furth	er changes. It includes	names of confirmed	organizers and speakers only For program	updates and registra-

This is a working draft of the program that will undergo further changes. It includes names of confirmed organizers and speakers only. For program updates and registration information when available, please check the CRA website at: http://cra.org/Activities/Snowbird00.html; e-mail snowbird@cra.org; or call 202-234-2111.

1998-1999 Taulbee Survey 1998-1999 Preliminary Taulbee Data on Faculty Salaries

By Mary Jane Irwin and Frank Friedman

Each September the Computing Research Association surveys academic departments in the United States and Canada that offer the Ph.D. in computer science or computer engineering. The annual CRA Taulbee Survey collects data on enrollment in the undergraduate, master's, and Ph.D. computing programs; employment of Ph.D. graduates of these programs; and number and salaries of faculty in these programs.

This is the 29th year that CRA has tracked the production and employment of Ph.Ds in the computer science field. For the past 13 years, computer engineering data have also been incorporated into the survey. The traditionally high response rate to the survey makes the data especially useful; the data are used widely, not only by CRA's members but also by other organizations and institutions.

Each January, as a service to our members, CRA publishes a prelimi-

nary report of the survey's salary data. We believe these preliminary results comprise enough data to be valuable and valid as tools for planning for the spring faculty-recruiting season. The full survey, including updated salary data, enrollment, production, and employment data as well as trend analyses, will appear in the March 2000 issue of *CRN*.

The following tables show the results in a format comparable to that used in previous CRA surveys. This year, for the first time, CRA asked for salary data on non-tenure-track teaching faculty (e.g., instructors, lecturers, etc.). Due to a low return rate to date for computer engineering programs (only 3 of 22 surveys have been received), we have not reported preliminary salary data for computer engineering. Information from all of the surveys returned will be published in the final report in March. In the tables that group the departments by rank, the groupings are based on the 1993 National Research Council ranking of research-doctorate programs in the United States, released in 1995 (http://www.cra.org/statistics/ nrcstudy2).

Each department was asked to report the minimum, mean, and maximum salary for each rank (full, associate, assistant, non-tenure track teaching faculty) and the number of persons at each rank. The salaries are those effective as of January 1, 2000. For U.S. departments, nine-month salaries are reported in U.S. dollars. For Canadian departments, twelvemonth salaries are reported in Canadian dollars. Respondents were asked to include salary supplements such as

salary monies from endowed positions. The minimum and maximum of the reported salary minima (and maxima) is self-explanatory. The range of salaries in a given rank among departments that reported data for that rank is the interval ["minimum of the minima," "maximum of the maxima"]. The mean of the reported salary minima (maxima) in a given rank is computed by summing the departmental reported minimum (maximum) and dividing by the number of departments reporting data at that rank. The average salary at each rank is computed by summing the individual means reported at each rank and dividing by the number of departments reporting at that rank.

For comparison with last year's data, Table 8 shows, separately, the overall average salaries for U.S departments and for Canadian departments. The preliminary data from 1998 are those published in the January 1999 CRN, and the final data from 1998 are those published in the March 1999 CRN. As can be seen, the U.S. averages appear to have increased by 6.5 percent, 4.7 percent, and 2.7 percent for Assistant, Associate, and Full Professors, respectively. Canadian averages appear to have increased at the considerably higher rate of 9.2 percent, 6.7 percent, and 5.4 percent for Assistant, Associate, and Full Professors, respectively.

Mary Jane Irwin, Pennsylvania State University, and Frank Friedman, Temple University, co-chair CRA's Taulbee Survey Committee.

Tab	le 1.	Niı	1e-l	Month Sala	ries, 121 R	lespor	nses of 156	US Comput	ter Science D	Department	ts		
							Ren	orted Sala	rv Minimum				
_		_						on teu Salai	y winning in				

	Reported Salary Maximum							
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	394	\$10,000	\$43,382	\$98,131	\$49,025	\$30,575	\$56,268	\$126,904
Assistant	560	\$40,000	\$60,940	\$75,500	\$64,279	\$54,583	\$68,230	\$84,000
Associate	783	\$42,616	\$65,843	\$90,000	\$72,796	\$57,677	\$80,705	\$131,667
Full	1062	\$45,600	\$77,287	\$109,650	\$102,767	\$63,400	\$123,873	\$239,135

Table 2. Nine-Month Salaries, 11 Responses of 12 US Computer Science Departments Ranked 1-12											
	Reported Salary Maximum										
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum			
Non-Tenure Teaching Faculty	59	\$24,470	\$56,943	\$98,131	\$65,273	\$48,434	\$74,082	\$126,904			
Assistant	84	\$55,650	\$64,992	\$68,800	\$69,414	\$67,300	\$74,435	\$81,800			
Associate	89	\$51,050	\$71,415	\$90,000	\$79,686	\$77,570	\$86,700	\$95,000			
Full	202	\$45,600	\$81,557	\$93,300	\$108,896	\$130,000	\$149,875	\$180,000			

Table 3. Nine-Month Salaries, 12 Responses of 12 US Computer Science Departments Ranked 13-24												
	Reported Salary Minimum											
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum				
Non-Tenure Teaching Faculty	46	\$33,333	\$48,010	\$65,592	\$57,296	\$48,428	\$68,229	\$83,200				
Assistant	54	\$61,192	\$65,576	\$70,000	\$69,546	\$67,000	\$75,091	\$81,800				
Associate	66	\$61,811	\$72,096	\$90,000	\$80,715	\$80,200	\$89,574	\$101,750				
Full	172	\$66,818	\$83,735	\$93,300	\$108,595	\$130,000	\$113,643	\$239,135				

Table 4. Nine-Month Salaries, 12 Responses of 12 US Computer Science Departments Ranked 25-36

		Repo	rted Salary	Minimum	Reported Salary Maximum				
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum	
Non-Tenure Teaching Faculty	28	\$38,000	\$49,904	\$65,000	\$56,036	\$43,900	\$63,467	\$120,000	
Assistant	75	\$58,000	\$64,248	\$71,000	\$67,301	\$62,237	\$71,040	\$80,000	
Associate	81	\$60,810	\$70,585	\$83,400	\$77,710	\$70,000	\$89,241	\$131,667	
Full	137	\$67,574	\$79,296	\$92,383	\$102,842	\$96,678	\$139,909	\$190,000	

Table 5. Nine-Month Salaries, 86 Responses of 120 US Computer Science Departments Ranked Higher than 36 or Unranked

	Reported Salary Maximum							
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	261	\$10,000	\$39,931	\$95,000	\$44,679	\$30,575	\$51,222	\$95,000
Assistant	337	\$40,000	\$59,266	\$75,500	\$62,504	\$54,583	\$66,013	\$84,000
Associate	540	\$42,616	\$63,809	\$87,000	\$70,541	\$57,667	\$77,847	\$104,700
Full	538	\$52,898	\$75,460	\$100,000	\$91,285	\$63,400	\$113,643	\$235,000

1998-1999 Taulbee Survey

		Repo	rted Salary	Minimum		Reported Salary Maximum			
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum	
Non-Tenure Teaching Faculty	35	\$35,000	\$46,952	\$70,000	\$50,213	\$39,008	\$54,926	\$79,643	
Assistant	78	\$46,640	\$60,890	\$80,916	\$64,868	\$51,728	\$69,112	\$90,725	
Associate	118	\$54,472	\$67,507	\$90,030	\$76,812	\$73,352	\$86,829	\$120,000	
Full	149	\$58,088	\$80,112	\$109,867	\$95,719	\$79,712	\$118,115	\$168,299	
Table 7. Nine-Month Salaries	for New Ph.	D's, Respondi	ing US CS a	and CE Depar	tments				
		Repo	rted Salary	Minimum		Repo	rted Salary	Maximum	
Faculty Rank	# Faculty	Minimum	Mean	Maximum	Average of all salaries	Minimum	Mean	Maximum	
Tenure-Track	96	\$42,000	\$64,637	\$83,000	\$65,418	\$60,012	\$66,253	\$83,000	
Researcher	6	\$40,200	\$53,733	\$82,000	\$53,733	\$48,000	\$56.333	\$82,200	

\$68,000

\$44,000

Table 8. Average Salary Comparison with 1998 Survey

13

8

\$36,000

\$25,000

\$50,555

\$34,333

	U	S CS/CE Departm	ents	Canadian CS Departments			
	Preliminary 1998	Final 1998	Preliminary 1999	Preliminary 1998	Final 1998	Preliminary 1999	
Number Reporting/Surveyed	118/168	129/168	125/178	12 / 18	12/18	16 / 23	
Non-Tenure Teaching Faculty	Not Reported	Not Reported	\$48,823	Not Reported	Not Reported	\$50,213	
Assistant	\$60,418	\$60,373	\$64,273	\$59,217	\$59,217	\$64,686	
Associate	\$66,887	\$69,775	\$73,061	\$71,990	\$71,990	\$76,812	
Full	\$93,313	\$92,901	\$95,426	\$90,823	\$90,823	\$95,719	

Congress from Page 1

Non-Tenure Teaching Faculty

Postdoc

Following are budget summaries for key research agencies.

Department of Defense: For five years running, Congressional appropriators have added money to the DOD R&D budget request, though spending on defense R&D is still far below what it was in the 1980s. In FY 2000, funding for DOD R&D will rise by just over \$1 billion to a total of \$39 billion, about \$4 billion more than DOD had requested. Basic research (category 6.1 research in DOD parlance) was funded at \$1.2 billion, an increase of 5.4 percent over the FY 1999 level. Spending on applied research (category 6.2) is expected to be \$3.4 billion, an increase of 7.5 percent above last year's level. Despite the overall increases, DARPA's request for new information technology research funding under the Administration's Information

Technology for the 21st Century initiative (IT^2) was cut by more than half, from \$70 million to \$30 million. There are plans for another \$30 million to be spent on other IT^2 programs elsewhere in DOD.

Department of Energy: DOE spending on R&D will grow to \$7.2 billion in FY 2000, an increase of \$258 million or 3.7 percent. However, the \$130 million budget for Computational and Technology Research, a civilian program, is down-by \$26 million compared to last year and \$70 million compared to the request-due to the rejection of DOE's proposed Scientific Simulation Initiative (SSI), another element of IT2. Appropriators apparently felt that SSI duplicates DOE's Accelerated Strategic Computing Initiative (ASCI), a defense research program that also involves development of next-generation teraflop computers, ASCI was funded at \$315 million in FY 2000,

COMPUTING RESEARCH NEWS Vol. 12/No. 1/January 2000

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Computing Research Association Staff William Aspray, Executive Director Michael Corbin, Administrator Dana Neill, Business Manager Jean Smith, Program Associate Lisar Thompson, Director of Government Affairs Jay Vegso, Membership Services Associate an increase of 4.6 percent above last year's level. (See the legislative wrap-up on page 6 for more news concerning ASCI.)

\$50,861

\$37.666

\$36,000

\$35,000

\$51,000

\$44,333

NASA: After House appropriators caught NASA off guard with a \$1.4 billion cut, the space agency rallied its troops, supplicated its key champions in the Senate, and got the funding restored. However, the agency has seen better days. Neither the Administration nor Congress has targeted NASA as a beneficiary of their surging support for science as they have with NIH, NSF, and other research agencies. NASA's budget for FY 2000 is \$13.6 billion-down by \$64 million or about a half a percent from the FY 1999 funding level, but slightly more than what was requested. National Institutes of Health:

NIH appropriations come from one of the five bills that was subject to negotiations over the omnibus budget package. In fact, Congress's insistence on adding \$2.2 billion to the NIH budget was one of the reasons that offsets were needed to get back under the spending caps. The FY 2000 NIH budget totals \$17.8 billion, 14.3 percent more than its FY 1999 budget and \$1.9 billion more than the Administration had requested. There is a catch, however, as the omnibus appropriations bill restricts NIH from spending the last \$3 billion of its budget until September 29, 2000, one day before the end of FY 2000. The Administration unsuccessfully contested this provision, an accounting trick that is not often imposed on research programs

National Science Foundation: The NSF budget will grow by \$240 million in FY 2000 to a total of \$3.9 billion, 7 percent above funding in FY 1999. The increase includes \$90 million for a new Information Technology Research (ITR) program and \$36 million to develop a five-teraflop computing facility, which together comprise the NSF's contributions to IT². With the new ITR funding, the Computer and Information Science and Engineering Directorate's budget will increase by 30 percent, to \$390 million, in FY 2000. Two other priority research areas biocomplexity and plant genome—will see expanded support in FY 2000.

\$68,000

\$55.000

Outlook for IT Research in FY 2001

Next month the President will release his budget request for FY 2001. It is expected to include second-year funding for the IT² initiative, consistent with the recommendations made by the President's Information Technology Advisory Committee (PITAC). PITAC called for the expansion of support for fundamental computing and networking research by \$1.37 billion over five years.

IT research will not be the only highlight of the science budget, however. The Administration is also expected to unveil a new initiative in nanotechnology, described as the creation and utilization of functional materials, devices, and systems through the control of matter on a scale of a fraction of a nanometer to tens of nanometers.

Although IT² was not implemented in its entirety during the first year of consideration, it fared relatively well for a new initiative, with the lead agency, NSF, obtaining nearly full funding for its components. Prospects for sustaining progress toward full implementation of a five-year IT research program are good and could be enhanced by further Congressional action on the Networking and Information Technology Research and Develop-

Congress Continued on Page 7

Legislative Update

By Lisa Thompson

NITR&D

Rep. James Sensenbrenner (R-WI), Chairman of the House Science Committee, introduced the Networking and Information Technology Research and Development Act (HR 2086) in June 1999. The Committee approved it overwhelmingly in September, and the bill now has 45 cosponsors. It is likely that the House will take up the measure soon after Congress reconvenes this month.

The bill would amend the High Performance Computing and Communications Act to reauthorize HPCC funding for the six agencies under the Science Committee's jurisdiction for the next five years It would also set aside a portion of the National Science Foundation's HPCC funding for a new Networking and Information Technology R&DProgram. The NITR&D Program, based on the PITAC recommendations to expand support for fundamental computing research, would consist of "grants for long-term basic research on networking and information technology, with priority given to research that helps address issues related to high-end computing and software and network stability,

fragility, reliability, security (including privacy), and scalability." Major Science Policy

Legislation

In July 1999, the Senate passed by unanimous consent the Federal Research Investment Act (S 296), a measure sponsored by Senator Bill Frist (R-TN), Chairman of the Science, Technology, and Space Subcommittee, to authorize a doubling of the civilian R&D budget over 10 years. In late October, Rep. Heather Wilson (R-NM) and 11 cosponsors introduced a counterpart bill in the House.

The proposal to double support for civilian R&D originated in the Senate several years ago and a number of Senate Commerce Committee members have become its ardent champions. But the House Science Committee majority regards this approach to science policy with skepticism. Authorization bills hold more significance in the House than in the Senate, and Sensenbrenner protects his authorization prerogatives fiercely. With science agency budgets authorized under a general doubling plan, the Science Committee's opportunity to influence appropriations with annual passage of carefully crafted authorization bills could be diminished.

Nominees Sought for Board

The Computing Research Association is seeking nominations for its Board of Directors. The deadline for receipt of nominations is **March 1, 2000**.

Each spring CRA's member organizations elect about one-third of the association's board members to three-year terms. Candidates are not required to be affiliated with CRA member organizations. It is important that the CRA Board represent the interests of the entire computing research community, and it is CRA's policy to solicit a broad range of candidates.

The CRA board is a working board, and all members are expected to actively participate. Although CRA has a small professional staff, board members have detailed involvement in all major projects. Recent and current projects include:

• planning the biennial CRA Conference at Snowbird.

• conducting the annual CRA Taulbee Survey.

• conducting other surveys (e.g., industrial lab salaries; departmental budgets, space, personnel).

• developing workshops on critical policy issues for computing research.

• planning academic and industrial careers and effective teaching workshops.

• increasing the participation of women and minorities in computing research, with the help of National Science Foundation grants.

In addition to actively participating in board projects, board members are asked to attend at least two board meetings per year and pay their travel costs to the meetings.

Service on this board is important. Research in computer science and computer engineering is facing major challenges as the political environment for government support changes. Computing has been identified as a technology of critical social importance. This increased political attention places new demands on our field and offers new opportunities.

Please contact the person you are nominating before submitting his or her name to ensure that the nominee is willing to stand for election to the board. Nominees are required to write a brief (100word) statement supporting their nominations. Nominees will receive information about CRA and its activities (also available on the Web at http://www.cra.org).

To receive a nomination form, send an e-mail request to Jean Smith at elections@cra.org. Nominations must reach CRA by March 1. 2000. The fate of the doubling bill is probably tied to that of the NITR&D Act. With Senate science policy leaders committed to the former and House leaders pushing the latter, they will need to arrive at a compromise before either measure is enacted.

R&D Tax Credit

On the last day of the 1999 session, Congress passed a minor 'omnibus' tax bill (HR 1180) to extend various popular tax breaks that typically have to be reauthorized every year. The fallback measure became necessary when President Clinton vetoed the \$700 billion tax reduction package offered by the Republicans. Like the major tax package, the enacted bill includes a provision to extend the Research and Experimentation Tax Credit for 5 years, an important milestone in the high-tech industry's long-running efforts to have the credit made permanent.

National Nuclear Security Administration

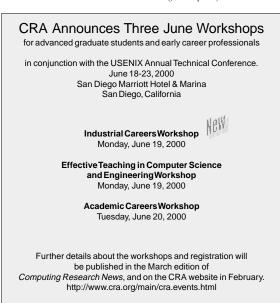
The highly publicized security lapses at DOE's national security laboratories sparked an intense drive in Congress to bring DOE to heel. The defense authorization bill enacted in August (S 1059, PL 106-65) established the National Nuclear Security Administration (NNSA), a semi-autonomous agency within DOE responsible for ensuring the security and reliability of the nation's nuclear weapons stockpile. DOE Secretary Bill Richardson opposed the measure because it impinged on his authority. He ultimately relented and President Clinton signed the bill in October; Clinton then tried to get around the law by appointing Richardson himself as the head of NNSA. Naturally outraged, Congress pressured the Administration into agreeing to name an independent NNSA Administrator.

About half of all DOE R&D now falls under the NNSA, which is also charged with nuclear safety and environmental protection efforts. Responsibility for the \$2.2 billion Stockpile Stewardship Program, of which the Accelerated Strategic Computing Initiative is a part, has been transferred to NNSA, as has authority for the Livermore, Los Alamos, and Sandia nuclear weapons' laboratories, where the security controversies originated.

IT Worker Shortage

A flurry of bills to address the IT worker shortage were introduced in 1999. None got very far, how ever, as Congress had wearied of the issue in 1998. Senator Phil Gramm (R-TX) and Rep. David Dreier (R-CA) are sponsoring legislation (S 1440 and HR 2698, respectively) that would raise the cap on H-1B visas to 200,000; Senator John McCain (R-AZ) has introduced a bill to temporarily remove the cap (S 1804). Senator Kent Conrad (D-ND) and Rep. James Moran (D-VA) each introduced legislation to establish a tax credit to offset IT worker training expenses (S 456 and HR 838, respectively). Conrad's proposal was offered as an amendment to the Republican tax reduction bill, but was rejected 46-54.

Perhaps the most interesting of the proposals is one to create a new 'T" or "Tech" visa for international students who receive science and engineering degrees from American universities and want to stay and work in the United States. The concept is embodied in the Bringing Resources from Academia for the Industry of our Nation Act (BRAIN; HR 2687) introduced by Rep. Zoe Lofgren (D-CA), and in the Helping Improve Technology Education and Competitiveness Act (HITEC; S 1645) being sponsored by Senator Chuck Robb (D-VA). The bills face an uphill climb, as do most proposals to change U.S. immigration policy.



Nominations Sought for CRA Service Awards

CRA invites nominations for each of two service awards for the year 2000. The deadline for receipt of nominations is **February 15, 2000.**

CRA Distinguished Service Award

CRA makes an award, usually annually, to a person who has made an outstanding service contribution to the computing research community. This award recognizes service in the areas of government affairs, professional societies, publications or conferences, and leadership that has had a major impact on computing research.

A. Nico Habermann Award

CRA makes an award, usually annually, to a person who has made an outstanding contribution to aiding members of underrepresented groups within the computing research community. This award recognizes work in areas of government affairs, educational programs, professional societies, public awareness, and leadership that has had a major impact on advancing these groups in the computing research community.

Nomination Procedure

Nominations should be no longer than two pages and should describe the contribution(s) that is the basis of the nomination. Letters in support of the nomination are welcome, but not required. Nominations should reach CRA via e-mail (awards@cra.org), fax (202-667-1066), or postal mail **no later than February 15, 2000**. For specifics, see our website: http://www.cra.org/main/cra.awards.html

Past Distinguished Service Award Recipients:

- 1999: Bill Joy, Sun Microsystems, and Ken Kennedy, Rice University (cowinners)
- 1998: Merrell Patrick, National Science Foundation
- 1997: Anita Jones, University of Virginia
- 1996: Paul Young, University of Washington
- 1995: Randy Katz, University of California at Berkeley 1994: William A. Wulf, University of Virginia
- 1993: not awarded
- 1992: Joseph Traub, Columbia University
- 1991: David Gries, Cornell University
- 1990: Robert Kahn, CNRI
- 1989: Peter Denning, George Mason University
- 1988: Kent Curtis, National Science Foundation (posthumous)

Past Habermann Award Recipients

- 1999: Sheila Humphreys, University of California, Berkeley
- 1998: Bryant York, Northeastern University
- 1997: Andrew Bernat, University of Texas at El Paso
- 1996: Caroline Wardle, National Science Foundation
- 1995: Eugene Lawler (posthumous), University of California at Berkeley 1994: Richard A. Tapia, Rice University

Congress from Page 5

ment Act (HR 2086), legislation to reauthorize the High Performance Computing and Communications Program and implement the PITAC recommendations. (See the legislative wrap-up on page 6 for further details on the status of NITR&D.) But further success also depends

on continued advocacy by the IT

research community and on the strength of the coalition of university and industry organizations across the realm of computing, networking, and computational research that emerged in support of the PITAC proposal. CRA will continue to lead the charge in FY 2000 by providing information and recommendations to Congress and facilitating action among computing researchers.

Grace Hopper Celebration of Women in Computing 2000

September 14-16, 2000 Sheraton Hotels Cape Cod, Massachusetts http://www.sdsc.edu/Hopper



Photo credit: SC99 Photo by Steve Reed, Oscar and Associates, Chicago, IL

Ken Kennedy (r), co-winner of CRA's 1999 Distinguished Service Award, accepts his award on November 18 at the SC99 Conference in Portland, Oregon. Presenting the award is CRA Board member, Dan Reed (University of Illinois at Urbana-Champaign). The award was presented jointly to Professor Kennedy (Rice University) and Bill Joy (Sun Microsystems, Inc.) in recognition of their contributions to the computing research community as co-chairs of the President's Information Technology Advisory Committee (PITAC).

NEC from Page 1

tive participation. Such requests have been in areas closely associated with work already being done by the NECI PRM. When a PRM begins a new area of research, a onepage project description is prepared and a short presentation is made to the Board of Fellows. The Board often makes suggestions and occasionally asks for revisions, but to date has never rejected a plan.

More than 80 percent of NECI's approximately 100 employees are scientific staff, with the remainder filling managerial, administrative, systems support, and sceretarial positions. At any given time NECI also hosts about 70 other scientistsvisitors (often faculty on sabbaticals), post-docs, consultants (often university faculty), student interns, and a handful of visitors from NEC Japan.

A major factor in NECI's ability to hire world-class scientists is its favorable working environment. Funding for projects comes with a PRM position. Periodic reporting requires only several pages per year. Scientists are, of course, expected to produce journal papers, patents, prototype systems, demos, distributable software, and other evidence of progress. PRMs are also expected to participate in evaluations of other scientists and to make occasional presentations for visitors and sponsors of NECI, but non-research demands are kept to a bare minimum. The Institute encourages publication; in fact, it promises staff that everything they do can be published, which is unusual for an industrial laboratory.

Junior scientists are hired for a provisional period of four years, during which their performance is reviewed annually. If the provisional appointment is converted to a regular appointment, subsequent indepth evaluations occur every three years. Eight senior scientists with strong records of accomplishment,

SOME NECI RESEARCH HIGHLIGHTS

• Inquirus, an excellent Web metasearch engine used by most members of NECI and other NEC labs. Try this on an experimental basis at www.inquirus.com.

• ResearchIndex, a computer science citation system that provides citation reports based on approximately 250,000 articles; rated "best of the Web" by the Go Network and the Scour Report. To try it, go to www.inquirus.com and click on ResearchIndex.

 Electronic watermarking for DVD and video—NECI played a lead role in a pending standard.
 Size of the Web and cover-

age of various search engines—definitive studies conducted and published in *Science* and *Nature* and widely cited in the media.

• GMR (Giant Magneto-Resistance) semiconducting material that has more than 100 times the magneto-resistivity of other materials; may be important for higher density disk drives and many sensing applications.

• Discovery that large amounts of light can pass through a hole that is smaller than the wavelength of the light, with possible applications to microfabrication and more efficient optical scanning microscopes.

who meet as a Board of Fellows, help to set scientific directions for the Institute, supervise hiring, conduct scientific evaluations, and consider promotions.

In the coming year, NECI is likely to be hiring in the area of Web computing—especially combined with AI or systems. For more information, visit NECI's web site at: http://www.neci.nj.nec.com/neciwebsite/index-page.html.

Dr. Gear and Dr. Waltz are President and Vice President, respectively, of the NEC Research Institute.

Professional Opportunities

CRN Advertising Policy

Send copy and payment for Professional Opportunities advertisements to Advertising Coordinator, e-mail: crn@cra.org. E-mail submissions are preferred. Items may be mailed to Computing Research New 1100 Seventeenth Street, NW, Suite 507, Washington, DC 20036-4632; fax: 202-667-1066

The format of an ad must conform to the following: 1) the first line must contain the name of the university or organization, 2) the second line usually contains the name of the department or unit, and 3) the body of the ad should be in paragraph form. The words in the first two lines are included in the total word count for the ad. You may request in writing that some text be set in bold; a bold word in the body of the ad counts as two words.

The rate is \$2.25 (U.S.) per word. Purchase orders, money orders, and checks are acceptable (please do not send cash). All CRA members receive 200 free words per dues year. CRA's standard advertising package consists of running an ad in CRN, and distributing it electronically to CRA's jobs listserv and webpage (where it remains for no less than two months). As an alternative to this package, advertisers may request that their Professional Opportunities ads just be published in CRN or just distributed electronically. The cost of the ad is the same whether the standard or the alternative package is selected.

Professional Opportunities display ads cost \$60 (U.S.) per column inch, with a two-inch minimum. Ads must be submitted in camera-ready, offset (positives or negatives) or mechanical form. If your ad is larger than three inches, please request our Advertising Rate Card.

Computing Research News is published five times per year: in January, March, May, September, and November. If the closing date of a Professional Opportunities ad does not correspond with the publication of an issue of CRN, advertisers can choose the alternative advertising package and only have the ad distributed electronically. Advertising copy that is to appear in CRN must be received at least one month before publication. The deadline for the March issue is February 1. Ads for electronic distribution only may be submitted at any time.

Argonne National Laboratory

Argonne National Laboratory Undergraduate Program in Computa-tional Science, Mathematics and Com-puter Science (MCS) Division, Argonne National Laboratory. (May 30-August 11) Focus: research in numerical and nonnumerical methods, parallel tools, cientific requirement on eliberation scientific visualization, collaboration tional science, and systems administration. See http://www.mcs.anl.gov/division/ See nttp://www.mcs.ani.gov/atvision/ information/educational_programs/ studentopps.html. Contact: Jan Griffin, MCS Division, Argonne National Lab., 9700 S. Cass Ave., Argonne, IL 60439; griffin@mcs.anl.gov; 630-252-7271; fax 630-252-5676. Deadline: February 1, 2020 2000.

Argonne National Laboratory Summer Givens Associates appoint-ments, Mathematics and Computer Science (MCS) Division, Argonne National Laboratory. Focus: for graduate students beginning careers in numerical analysis of computational mathematics. analysis of computational mathematics. See: http://mcs.anl.gov/division/informa-tion/educational_programs/givens00.html Contact: Jan Griffin, MCS Division, Argonne National Lab., 9700 S. Cass Ave., Argonne, IL 60439; griffin@mcs.anl.gov; 630-252-7271; fax 630-252-5676. Deadline: February 10, 2000. 2000

Auburn University Director and Faculty Positions To Support The Institute for Reconfigurable Smart Components for Next Generation Information Technology Auburn University invites nominations

and applications for four tenure track faculty positions including the Director. The Institute involves the Departments of Computer Science and Software Engineer ing (CSSE) and Electrical and Computer Engineering (ECE) in a new university initiative to develop Pinnacles of Excellence

The Institute The Institute will focus College

expertise on Reconfigurable Smart Components. The research includes:
 Creation of enabling technology for reconfigurable smart components, and the

transfer of the technology, as appropriate, e Enhancement of the graduate research programs in the College of Engineering by

programs in the Conege of Engineering by adding new highly qualified faculty and increasing the level of extramural funding. A reconfigurable smart component is an augmented version of a standard compo-nent (what constitutes a 'component' will depend on the system in question). The augmentation, consisting of both hardware and software, provides a way for the and software, provides a way for the component to participate in an ad-hoc network of other similar components and a way for the system as a whole to connect to larger, more permanent networks. Communication may be via direct connection or wireless. The University will invest over \$1M

(estimated) in five years in new positions with an objective of gaining national prominence in the area over this time period.

period. Description of Positions • Director Position (12 month) The Director will report to the Dean of Engineering on matters related to the Institute and has responsibility for coordinating and managing the research effort, as well as providing much of the vision and direction for the Institute. The successful candidate will have demon-strated excellence in leading a research effort in the information technology area effort in the information technology area and developing partnerships with govern-ment and industry. While it is anticipated that candidates with the credentials and qualify for appointment at the Professor level, outstanding candidates eligible for appointment at Associate or Assistant

 Professor will also be considered.
 Three faculty positions (9 month) in the areas of: Systems Software (CSSE)

2) RF Devices and Circuits, including TCAD Software (EE)

TCAD Software (EE) 3) Computer Networks (CSSE) Successful candidates for these tenure track positions will possess a Ph.D. in Computer Science or the appropriate engineering discipline. Rank within one of the involved departments and salary will be commensurate with qualifications. Candidates must plan to strongly impact Candidates must plan to strongly impact the research program in the institute

will have teaching responsibilities within the department

Auburn University Auburn University was chartered in 1856, and is the largest university in the state of Alabama, with a student enrollment of over 22,000 and 1,125 faculty. Auburn is located 100 miles southwest of Atlanta and 50 miles Northeast of the State Capitol Montgomery. Auburn is ranked 38th overall and 34th in Engineering among public universities by U. S. News and World Report. Auburn offers nearly 150 baccalaureate degree programs in 64 academic departments. The graduate school provides master's level programs in 130 areas and doctoral programs in 96 Fields. The College of Engineering has an enrollment of 3,100 undergraduates and 500 graduate students in 8 departments. The picturesque main campus covers 1,875 acres, and includes the entire southwest quadrant of the city of Auburn. The Auburn-Opelika community has an Auburn-Opelika community has an additional population of about 50,000, an excellent public school system, and has been nationally ranked as one of the "best small towns in America". Applicants should submit a current curriculum vitae, research vision, teaching philosophy and 5 references to: Dr. John M. Owens Associate Dean For Research College of Engineering 108 Ramsay Hall

108 Ramsay Hall Auburn University, AL 36849 www.eng.auburn.edu/irsc/

Interview process to begin February 1, 2000

AA/EEOE/Women and Minorities are encouraged to apply.

Ben-Gurion University Department of Math and Computer Science

The Computer Science Division at the Ben-Gurion University of the Negev in Israel invites applications for tenure track positions at all levels. Candidates must have a Ph.D. in

computer science or a related field and demonstrate excellence in research and teaching. Candidates in all areas of computer science will be considered. The Division offers B.Sc., M.Sc., and

Ph.D. degrees in Computer Science and is young and dynamic, comprising of 18 full-time faculty members. It is currently undergoing a significant expansion with a large increase in the number of faculty members and resources. Faculty members enjoy a research oriented atmosphere with moderate teaching loads and are encour-aged to interact with the burgeoning high

aged to interact with the burgeoning high technology industry in Israel. Applications, including resume and the name and address of at least three references (please indicate E-mail ad-dresses) should be sent to:

dresses) should be sent to: Dr. Shlomi Dolev, CS Coordinator, Dept. of Mathematics and Computer Science, Ben-Gurion University, P.O.Box 653, Beer-Sheva, 84105, ISRAEL, Email: dolev@cs.bgu.ac.il.

Bowdoin College

Department of Computer Science The Department of Computer Science at Bowdoin College invites applications for a tenure-track position at the rank of Assistant Professor or Instructor to begin in the Fall of 2000. Ph.D. preferred, ABD considered considered. The successful candidate will be expected to teach four courses per year including introductory, core, and advanced undergraduate courses. Area of specialization open; particular interest in graphics, scientific modeling, scientific visualization or human-computer interaction. Applicants must possess a commitment to undergraduate education and demonstrate the potential to develop a productive research program

Bowdoin is a highly selective, coeducational, liberal arts college of 1,550 students located two hours north of Boston, close to Portland, along the Maine coast in a community of 24,000. The CS Department has just moved into a newly renovated building, along with the Mathematics and Physics departments with whom we maintain close and collegial relationships. Departmental lab facilities include Macintoshes for the introductory courses, and a network of Linux machines for use by students in intermediate and advanced

courses. Further information about Bowdoin and the department is available at www.bowdoin.edu

Applicants should send a letter of applicants acurriculum vitae, statements of teaching philosophy and research interests, and arrange for three reference letters to be sent to: David Garnick

Department of Computer Science

8650 College Station Brunswick, ME 04011 Questions can be directed by email to garnick@bowdoin.edu. Consideration of applications will begin January 3, and continue until the position is filled. nity through affirmative action. Women and members of minority groups are encouraged to apply.

Brown University

Department of Computer Science Applications are invited for a tenure-ck assistant professor position in computer science commencing no later than September 1, 2000. Outstanding applicants are sought in all areas of systems, including databases, distributed systems, including databases, distributed systems, environments, networks, operating systems, programming languages, software engineer-ing, mobile computation and Web-related technologies. Candidates are sought who will meet the teaching and research needs of the denoment. The source here will meet the teaching and research needs of the department. They must have completed all the requirements for the doctoral degree by no later than September 1, 2000. The initial appointment will be for three years and is renewable. Successful applicants will find at Brown a stimulating anyingment conducive to

a stimulating environment conducive to professional growth. Brown has a strong department with a variety of interesting research projects in analysis of algorithms, artificial intelligence, combinatorial optimization, computational complexity, computational geometry, computer graphics, concurrent data structures and architectures, database systems, gra drawing, operating systems, parallel computation, programming environments, data mining, programming languages, robotics, and software engineering. Applicants should send a resume in hard copy and have at least three referees

send letters of recommendation to:

Prof. Steven P. Reiss Dept. of Computer Scienc Brown University, Box 1910

Providence, RI 02912 Inquiries may be addressed to faculty_search@cs.brown.edu. All

application materials must be received by January 31, 2000 for full consideration. Brown University is an equal opportunity/ affirmative action employer and strongly encourages applications from women, minorities, and protected persons.

Butler Universitv

Department of Computer Science OUTSTANDING OPPORTUNITY TO PARTICIPATE IN THE DEVELOPMENT OF A NEWLY FORMED DEPARTMENT.

NEWLY FORMED DEPARTMENT. The Department of Computer Science at Butler University invites applications for two faculty positions at any rank from individuals interested in the establishment of an innovative undergraduate Software Engineering curriculum founded on mathematics and are blue updates. Engineering curriculum tounded on mathematics and problem solving. Applicants should have a Ph.D. in Computer Science or a related discipline and background in an applied field (i.e. software engineering, operating systems, networks, computer architecture, etc.). A strong commitment to teaching and distinction in scholarship are expected and encouraged. Salary will be commensurate with background and experience. Applicants should send a detailed

Applicants should send a detailed resume to Professor Peter B. Henderson, Head, Department of Computer Science, Butler University, 4600 Sunset Ave, Indianapolis, IN 46208-3485 and arrange to have at least three letters of reference sent to the same address. Screening will beein impediately and continue will the begin immediately, and continue until the positions are filled.

Butler University, with and enrollment of 3350 undergraduate students, is located in a residential area of Indianapolis, Indiana, and offers an array of professional and pre-professional programs within the context of a strong commitment to the traditional arts and sciences and to the

values of liberal education. It enjoys a national reputation for excellence and quality, and has been ranked among the top institutions in its Carnegie category. Letters and requests for information

may also be sent to recruitcs@butler.edu. In addition, please e-mail to the same address a URL pointing to your online resume and publications.

Applications from women and minorities are particularly sought. Butler University is an affirmative action/equal opportunity educator and employer.

California Institute of Technology Computer Science Department

Computer Science Department Caltech livites applicants for tenure-track or tenured faculty positions in Computer Science with possible joint appointments in Electrical Engineering and other disciplines. Faculty searches have been approved for positions in the broad area of Computer Science, including, but near correlation. not restricted to:

Computer Networks
 Information Systems: Multimedia
Databases and Internet Data Systems

Fundamentals of Computer Science: Algorithms, Complexity, and Logic

The principal requirements include demonstrated excellence in innovative research and the potential for high quality teaching and mentoring. Completion of a Ph.D. in Computer Science or in a related field is required. The initial appointment term for tenure-track positions is four years

Interested persons should send a one page summary of their future research and teaching plans, a resume, names of at least three references, a list of publications, and a URL of a personal webpage that includes pre/reprints of publications. Applications should be mailed to:

CS Search

Caltech, MC 256-80 Pasadena, CA 91125

In addition, applicants are requested to fill out an online summary of their application at http://www.cs.caltech.edu/ search.

Questions about the application process may be directed to: search@cs.caltech.edu. Caltech is an Equal Opportunity/ Affirmative Action Employer. Women minorities, veterans, and disabled persons are encouraged to apply.

Carnegie Mellon University Department of Electrical and Computer Engineering

The Department of Electrical and Computer Engineering (www.ece.cmu.edu) at Carnegie Mellon has several faculty (both research and tenure track) openings in the area of Computer Engineering and Computing Systems. The College is ranked among the top ten in the country and the among the top ten in the country and the Computer Engineering program is ranked among the top five. The faculty has strong ties with many multidisciplinary centers and Institutes such as Institute for Complex Engineered Systems (graduated NSF ERC), Software Engineering Institute, Humon Computer Interface Institute, The Human Computer Interface Institute, The Robotics Institute, Parallel Data Labora tory, and the Information Networking Institute. The department is home to Institute. The department is home to several multidisciplinary centers and laboratories such as the Data Storage Systems Center (NSF ERC), Center for Electronic Design Automation, Center for Highly Integrated Processing and Storage Highly Integrated Processing and Storage Systems, Micro Electro-Mechanical Systems Laboratory, Distributed Robotics Laboratory, Networking Laboratory, and Laboratory for Computer Systems. A moderate teaching load allows time for quality research and close involvement with students and arbs fourly. We appear

students and other faculty. We expect with candidates for a tenure track position to have a strong commitment both to research and to teaching at the undergraduate and graduate levels.

Exceptional candidates in all areas of Computer Engineering and Computing Systems will be given serious consideration, but especially those that broaden the department in emerging areas or that strengthen existing areas. Particular areas of interest include wireless systems, computer security, computer networks, distributed systems, embedded systems, computer architecture, I/O and storage systems, wide area information services, internet-based computing, and technologies for emerging

applications such as, for example, ecommerce, ubiquitous computing and

post-PC computing. The department is primarily seeking individuals at the Assistant Professor rank; however, under unusual circumstances and however, under unusual circumstances and commensurate with the qualifications of the individuals, appointments may be made at the rank of Associate Professor or Professor. Senior-level applicants should have demonstrated leadership in building a strong research program and have a distinguished teaching and research record. Applicants must have earned a doctorate a related area by the date of appointment

Applications must specify the position (research or tenure track) and include a comprehensive resume, a list of three to five professional references, a statement of research and teaching interests (less than 2 pages), and copies of two research papers (journal or conference papers). The applicant is responsible for soliciting the reference letters to be sent directly to the address below. All applications must be sent to

Pradeen K. Khosla Dowd Professor and Head Electrical and Computer Engineering Hamerschlag Hall Carnegie Mellon University Pittsburgh, PA 15213-3890 Evaluation of applications will begin immediately and continue throughout the academic year until available positions are filled. Candidates are encouraged to apply early. Carnegie Mellon is building a culturally diverse faculty and encourages applications from female and minority candidates. Carnegie Mellon is an Equal Opportunity Employer.

Clemson University Department of Computer Science

Department Chair Clemson University invites applications and nominations for the position of Chair of the Department of Computer Science. Applicants should hold a doctorate in Computer Science or closely related area, have a strong commitment to effective and innovative teaching and have a strong research record. A background in one of the Department's research focus areas the Department's research rocks areas (algorithms, graphics, and software engineering) is considered a plus. Appli-cants should be at a level of experience that would support an appointment as a tenured full professor. The position is available beginning July 2000. The Department currently has twenty-one faculty positions. more than 500

one faculty positions, more than 500 undergraduate majors and more than 125 graduate students, and offers BA, BS (CSAB-accredited), MS and Ph.D. degrees. Descriptions of faculty research projects and additional information about the Department are available at: http:// www.cs.clemson.edu.

Clemson University, located in the town of Clemson, SC, is the land-grant university of South Carolina and has an enrollment of more than 17,000. Clemson is a small college town located on Lake Hartwell in the foothills of the Blue Ridge Mountains.

Applicants should send a curriculum Applicants should send a curriculum vitae and names of three references to Professor Stephen T. Hedetniemi, Department of Computer Science, Chair Search Committee, Clemson University, Clemson, SC 29634-0974. Screening will begin January 1, 2000 and will continue will che necifica is filled. Ovalifed until the position is filled. Qualified until the position is filied. Qualified women and minority candidates are especially encouraged to apply. Clemson University is an Equal Opportunity/ Affirmative Action Employer.

Colgate University

Colgate University Department of Computer Science Colgate University invites applications for a one-year visiting position at the rank of Assistant Professor starting in Fall 2000. A Ph.D. degree or equivalent with strong interest in both teaching and research are expected. Applicants are sought in all areas of computer science. Successful applicants will teach in their area of expertise, help staff other department courses, and be encouraged to participate in all-university programs.

in all-university programs. Colgate University is a highly competitive liberal arts college situated in upstate New York. The university is committed to

promoting excellence in both teaching and research. Review of applications will begin February 1 and continue until the position is filled. Resumes and three letters of recommendation should be sent to:

Professional Opportunities

Chair, Faculty Search Committee Department of Computer Science Colgate University

13 Oak Drive

13 Oak Drive Hamilton, NY 13346 Colgate is an equal opportunity/ affirmative action employer. Women and minorities are encouraged to apply.

College of William and Mary Department of Computer Science

Senior Faculty Position Are you interested in a tenure-track faculty position that offers an exciting opportunity to influence and contribute to the continuing growth of the Department of Computer Science at one of the nation's oldest and most prestigious universities? We are seeking candidates at either the associate or full professor level with a documented history of outstanding research and teaching, coupled with the desire and ability to play an active leadership role in defining the characterisdepartment. Applicants must hold a Ph.D. in

Computer Science or in a closely related scientific field. The department currently scientific field. The department currently consists of fourteen faculty members who support BS, MS and Ph.D. programs graduating approximately 40 BS students annually and enrolling approximately 40 MS and 35 Ph.D. students.

More information about the depart ment and the College can be obtained by ment and the College can be obtained by connecting to http://www.cs.wm.edu. The department maintains a contemporary computing environment for both teaching and research and is currently supported by a competitive NSF Major Research Instrumentation grant for several high reformant grant for several high performance computing research projects. Opportunities exist for joint research activity within the department, with members of the Computational Science Cluster, and with scientists and engineers at the nearby NASA Langley Research Center, ICASE, and the DoE's Thomas Jefferson National Accelerator Facility

Jefferson National Accelerator Facility. A resume and any supporting docu-ments should be sent to: Faculty Search Committee Department of Computer Science College of William & Mary P.O. Box 8795 Williamsburg, VA 23187-8795 Questions can be e-mailed to search@cs.wm.edu. Review will begin on February 1, 2000 and continue until the position is filled. The College is an EEO/ sition is filled. The College is an EEO/ AA employer.

Columbia University

Department Of Computer Science The Department of Computer Science anticipates several tenure-track openings this year at both the junior and senior levels, based in part on a major endowment from the Fu Foundation. We invite applications from exceptional candidates at all ranks and in all areas, but especially in information systems (e.g., information retrieval, database systems, and text/data mining), computer engineering (e.g., computer architecture, computer system design, and VLSI CAD), human-computer interaction, software and graphics systems

Our department of twenty tenure-track faculty and four lecturers emphasizes excellence in research and teaching and attracts excellent Ph.D. students: virtually attracts excellent Ph.D. students; virtually all of whom are fully supported by research grants. Departmental facilities include Sun and SGI servers, numerous workstations, PCs, plus state-of-the-art experimental systems. The department is in the fourth year of an NSF CISE research infrastructure year or an NSP CL5E research intrastructure grant and this year received a major grant from Microsoft Research for a Windows NT teaching lab. We have close ties to the nearby research laboratories of AT&T, Bell Atlantic, Telecordia Technologies, IBM, Lucent, Matsubita, NEC, Siemens, and other leading industrial companies, including the starture, companies, including the start-up companies of Manhattan's Silicon Alley and the financial companies of Wall Street. Columbia University is one of the

leading research universities in the United

States, and New York City is one of the States, and New York City is one of the cultural, financial, and communications capitals of the world. Columbia's enclosed campus of tree-lined walks is located in Morningside Heights on the Upper West Side. University subsidized housing and parking are available. Candidates for tenure-track Assistant Professor should exhibit exceptional research promise while those sorking a

research promise, while those seeking a more senior position should have an outstanding record of research achieve-ment. Interest and ability in teaching undergraduates and graduates is necessary. Applicants should submit a summary of research interests, curriculum vitae, e-mail address, and the names and e-mail addresses of at least three references by filing an online application using the form at http://www.cs.columbia.edu/recruit. A

confirmation of receipt will be sent by email. Columbia University is an Equal Opportunity/Affirmative Action Employer. We encourage applications from women and minorities.

Computists International . Computists' Weekly

Weekly digests of AI-related M.S./ Ph.D. research and teaching jobs, grant opportunities, industry news, research software, free online resources, career tips, philosophy, humor, etc. Browse archives at http://www.computists.com.

Cornell University Department of Computer Science

Multiple Positions

Tenure-track Positions, all levels, REF: AP#1 Applications are invited for tenure-track positions. These positions are at the Assistant, Associate, or Full Professor level depending on experience. Applicants should have a Ph.D. in Computer Science or in a closely related field. The department requires demonstrated research accom-plishment at the highest level as well as outstanding teaching ability and leadership qualities.

The Department of Computer Science at Cornell University encompasses a wide range of research areas, including artificial intelligence, concurrency and distributed computing, databases, algorithms, information organization and retrieva multimedia systems, applied logic and semantics, numerical analysis and scientific computing, theory of computation, programming languages and methodology, computer vision, computational biology, graphics, theory, networks, operating systems, and natural language processing.

systems, and natural ranginge processing. We are especially interested in networks, databases, digital libraries, graphics, systems, and computational biology. Applicants in all areas of computer science will be considered. Non-Tenure Track Positions, REF: NT=5

NT#5 We are seeking applicants for non

tenure track professorial positions at all levels as well as Lecturers and Instructors. The primary focus of these positions would be research or teaching. Applicants should have a Ph.D. in Computer Science or closely related field, a research program including demonstrated research accomplishments and a commitment to excel-lence in teaching computer science or closely related field.

Research, REF: RES#3 Also available: research positions in scientific computing and software systems Further information about the

department is available on the World Wide Web at URL: http://www.cs.cornell.edu/. Applicants should submit a curriculum

Applicants should submit a curriculum vitae and the names of at least three references to: Chair, Faculty Recruiting Committee, Department of Computer Science, 4130 Upson Hall, Cornell University, Ithaca, NY 14853-7501. Please include reference number with application. Cornell University is an equal opportu-nity employer and welcomes applications from wormen and orbits interstities

from women and ethnic minorities.

Dartmouth College Department of Computer Science

Robotics Laboratory Postdoctoral Research Associate in

Computer Science to conduct focused research on reconfigurable robotics. This is

a two-year appointment which may be extended depending on funding. Research is concerned with designing and building distributed systems of reconfiguring robots and supporting algorithms, working with a team of computer scientists and engineers to advance the state of the art in develop-ing reconfigurable massively-parallel robot systems. The work has a strong theoretical systems. The work has a strong theoretical component; it will also require building hardware, C++ system building, and experimentation. A background in geometric algorithms and robotics is a plus. Responsibilities include coordinating with government agencies and working with graduate students and programmers. Applicants must hold a Ph.D. in Computer Science or a related discipline, or show evidence that the Ph.D. will be compl evidence that the Ph.D. will be completed before the start of the position. Please send a resume and have at least two referees

a resume and have at least two referees send letters of recommendation to Prof. Daniela Rus, Dept. of Computer Science, Dartmouth College, 6211 Sudikoff Laboratory, Hanover, NH 03755-3510, rus@cs.dartmouth.edu/~rus/. Electronic submissions are encouraged. Dartmouth College is an Equal Opportunity Affirma-tive Action employer.

Eastern Connecticut State University Mathematics and Computer Science Department FACULTY POSITIONS/FALL 2000

Eastern Connecticut State University is characterized as an innovative undergradudynamic programs of professional prepara-tion, and a commitment to experiential

learning. Eastern faculty are expected to be outstanding teachers, to possess sensitivity to a diverse population, and to demonstrate a commitment to creative activity and scholarship, professional development, and professional service. The University serves approximately 5,000 full- and parttime students in a rural environment east of Hartford and midway between New York City and Boston.

All faculty positions listed below are being searched for as tenure-track placement at the Assistant Professor rank unless otherwise indicated, with competiunless otherwise indicated, with competi-tive salary and excellent fringe benefits. Normal faculty workload is twelve hours each semester (day and evening classes) along with involvement in research and creative activity and service. All appli-cants should submit hard copies of vitae, these latters of recommendition and a three letters of recommendation, and a

graduate transcript to: Eastern Connecticut State University Mathematics and Computer Science Department

Department Charles Webb Hall - Room #323 83 Windham Street Willimantic, CT 06226-2295 POSITION: Computer Science (Two Po

Positions) QUALIFICATIONS: Ph.D. or ABD to be completed by Fall 2000 in Computer Science or a closely related field. Rank based upon qualifications. POSITION DESCRIPTION: The

applicant is expected to be able to teach courses, which range from introductory to upper level undergraduate computer science courses. The teaching load is the equivalent to twelve credit hours per semester. Successful candidates should be committed to excellence in teaching, research, and professional growth. RESPOND TO: Dr. John F. Sharlow

Search Chair Review of applications will begin

immediately and will continue until the positions are filled. Further information about the university and department is accessible from the University webpage at www.ecsu.ctstateu.edu. ECSU is an AA/EEO Employer

Women, members of protected classes, and people with disabilities are encouraged to apply.

George Mason University

Department of Computer Science Ideally located in the world's largest Internet Technology and Services zone just seventeen miles west of the nation's capital, the Computer Science Department at George Mason University invites you to only for a fourly reciting or Arcitect apply for a faculty position as Assistant, Associate, Full, or Visiting Professor.

Professional Opportunities

We welcome applicants in all areas of nputer science. We are especially computer science. computer science. We are especially interested in applicants with expertise in distributed and parallel systems, program-ming languages and environments, networking and Internet technologies, and internet technologies, agent technology, and artificial intelligence. You must hold a Ph.D. in Computer Science or a closely related discipline. You will be expected to develop an excellently funded research program. Our salaries and startup packages are highly competitive.

startup packages are highly competitive. With twenty-four faculty, we offer BS, MS, and Ph.D. degrees in Computer Science. Student demand for our programs is strong and we have strong support from the university. Our research interests include all the areas mentioned above as well as computer architecture, performance evaluation, software engineering, computer graphics and visualization, vision, and robotics. We have recently been awarded an NSF Maior Research Infrastructure robotics. We have recently been award an NSF Major Research Infrastructure grant. We have numerous contacts and relationships with government and industry. Our website is http:// www.cs.gmu.edu.

Northern Virginia is a great place to live. The high-tech information technology industry is growing by leaps and bounds. There are great opportunities to work with startups and with established groups in industry and government. The regional school systems are among the best in the nation. There are many ethnic comm ties and frequent world class cultural events.

To apply: Send a letter of application including a statement of professional goals, complete resume, samples of representative publications, and the names of four

references to: Chair, Recruitment Committee Department of Computer Science, 4A5

George Mason University Fairfax, VA 22030-4444 Inquires: recruit@cs.gmu.edu The search process will continue un all open positions are filled. AA/EOE.

Georgia Southern University Department of Mathematics and Computer Science

Tenure Track Assistant or Associate Professors, Computer Science Multiple positions (up to 3) in

Computer Science as part of the University System of Georgia's Project Yamacraw. Georgia Southern University is one of five USG institutions chosen to participate in this bold new initiative in research. education, and economic development to secure Georgia's leadership in microchip design and high-bandwidth communica design and high-bandwidth communica-tions — key components in the new global economy. Key areas of the Yamacraw Project are: The Yamacraw High-Bandwidth Communications Cluster, The Yamacraw Design Center. The Yamacraw Education Cluster, under the leadership of the Georgia Board of Regents, will adapt curricula for at least eight institutions in the state to graduate a sufficient number of highly trained electrical engineers and computer scientists to fill new iohs. It will computer scientists to fill new jobs. It will also augment research into high-bandwidth communications. Specific foci include communications. Specific for include modeling and simulation of opto-electronic devices and systems; modeling and simulation of mixed-signal Ics and boards; methodology for embedded software development; development of a middle layer for embedded software; and development of an auto-encoding aevelopment of an auto-encoding environment for embedded software. Georgia Southern University also participates in a collaborative academic program with Georgia Tech, the Georgia Tech Regional Engineering Program (GTREP), which leads to a BS degree in Computer Engineering and is directly tied to the Yamacraw project

to the Yamacraw project. Ph.D. in computer science or computer engineering is required by the starting date of the position. Positions are available of the position. rositions are available beginning immediately, 4 January 2000, or 1 August 2000. Salary and rank are dependent upon qualifications. Applicants must be competent in spoken and written English. A demonstrated potential for scholarly activity and excellence in teaching are required. Preference will be given to applicants with training or given to applicants with training experience in at least one of the following



The Department of Computer Science at the University of Massachusetts Lowell announces several tenure track faculty positions. We invite applications from scholars with strong research records and recent graduat . swith exceptional research potential. Responses are encouraged from candidates with specialties in traditional and/or emerging areas of computer science. We encourage applications for appointment at all professional levels.

Our campus is located 35 miles northwest of Boston in the state's high-tech corridor and is considered the most technology-oriented of the five UMass campuses. The CS department has 16 full-time faculty, as well as over 300 undergraduates in the bachelor's program and over 300 graduate students in the master's and doctoral programs. Our research specialties include human-computer interaction, visualization and perception, database systems, networking and telecommunications, internet and web systems, languages and compilers, bioinformatics and object-oriented software engineering. For more information about us, please see http://www.cs.uml.edu.

We are seeking candidates who will contribute to the intellectual life of the department, the university and the region by establishing active research groups, teaching core and elective computer science courses to undergraduate and graduate students, and establishing professional connections with some of the multitude of thriving information technology companies in the area.

Applicants must have a doctorate in Computer Science or a closely related discipline at the time of appointment. Please send a statement of research interests; curriculum vitae; selected relevant papers and the names, addresses, email addresses, and telephone numbers of at least three references to: Dr. Thomas M. Costello, Head Department of Computer Science, University of Massachusetts Lowell, One University Avenue, Lowell, Massachusetts 01854, e-mail: tom@cs.uml.edu.

Review of applications will begin immediately, and will continue until the positions are filled. U.S. citizenship or permanent residency is required. The University of Massachusetts is an equal opportunity, affirmative action employer, and encourages applications from women and minorities.



The University of Massachusetts Lowell is an Equal Opportunity/Affirmative Action. Title IX. HV. ADA 1990 Employer

areas: digital signal and image processing, actas, digital signal and mage processin pattern recognition, computer graphics, data communication and networking, modeling and simulation, embedded software development, Unix network programming, artificial intelligence, an design optimization. Duties will include teaching under-

graduate and graduate courses in computer science and supervision of research projects for MS degree candidates. Our computer Science program is fully accredited by CSAB. Research activity in Project Yamacraw related areas will be expected. Faculty hired under this initiative will also Yamacraw faculty. For more information on our department, see our web pages at www.cs.gasou.edu. For more information on Project Yamacraw, see its web pages at www.gcatt.gatech.edu/yamacraw/. Georgia Southern University, a unit of

the University System of Georgia, is the largest and leading center of higher education in the southern half of Georgia and is third in student enrollment among and is third in student enrollment among public universities, serving approximately 14,400 students. As a comprehensive, residential university, its mission is strongly centered on the education of undergradu-ate students. The University offers approximately 130 degree programs at the baccalaureate, masters, and doctoral levels through six colleges. Founded in 1906, Georgia Southern became a regional university in 1990. The 634-acre campus is located in Statesboro, a community of approximately 30,000 residents, 50 miles northwest of historic Savannah and 200 miles southeast of Atlanta. miles southeast of Atlanta.

A completed application consists of a letter of application, curriculum vitae, an unofficial transcript of all graduate work, a brief description of planned research activities, and three letters of reference. Send application materials to: Dr. Donald W. Fausett, Yamacraw Search Chair, Department of Mathematics and Computer Science, PO Box 8093, Georgia Southern University, Statesboro, GA 30460-8093, or e-mail inquiries to dfausett@GaSoU.edu.

The FAX number is 921-681-0654. Screening of applications will begin immediately, and will continue until the positions are filled.

Georgia Southern is an Equal Opportunity, Affirmative Action Institution. Georgia is an Open Records state. Persons who need reasonable accommodations under the Americans with Disabilities Act in order to participate in the search process should notify the search chair.

Georgia State University Department of Computer Science

The Department of Computer Science of Georgia State University invites applications for anticipated tenure-track positions for Assistant or Associate Professors starting Fall 2000, semester in the fields of computer architecture, graphics, networks, software engineering, and systems programming.

Specialities of particular interest include: optical networks, high speed access devices, content processing, internet multimedia communications, modeling and simulation of opto-electronic devices and systems, modeling and simulation of mixed-signal ICs and boards, methodology for embedded software development, development of a middle layer for embedded software, development of an auto-coding environ-ment for embedded software, and the ment for embedded software, and the design and fabrication of prototype products. The anticipated positions are part of a strategic initiative, Project Yamacraw, by the State of Georgia to make the state the global leader in the electronic design of high bandwidth communications. Earmed IP D. in Commuter Science or a

design of high bandwidth communications. Earned Ph.D. in Computer Science, or a closely related discipline, and a commit-ment to excellence in teaching and research in computer science are required with preference for extramural funding. Departmental computing facilities for research and instruction include a departmental network of PCs, UNIX wederstring, and a 16 measurem Origin workstations, and a 16-processor Origin 2000 supercomputer and five laboratories, one with ATM switches for network research and another for hypermedia and

visualization research. Two full-time Systems Programmers support the

departmental computing facilities. Applicants should send a letter of application, curriculum vitae without birthdate, but with citizenship status, and three letters of reference and transcripts of all graduate and undergraduate work to: Chair, Department of Computer Science, Georgia State University, University Plaza, descreta State University, University Plaza, Atlanta, Ga. 30303-3083 (or e-mail mfraser@cs.gsu.edu). Applications will be accepted until positions are filled. Georgia State University is an EEO/AA institution.

Globe Institute of Technology

Globe Institute of Technology Computer Science Position Globe Institute of Technology in NYC invites applications for a position in the College's Computer Programming Department beginning January 2000. Duties include teaching object-oriented programming (C++, Visual Basic and Java),engaging in scholarly activity and providing service to the Department and College. Salary and benefits are competi-tive. A Ph.D. in a computer related field is providing service to the Department of College. Salary and benefits are competi-tive. A Ph.D. in a computer related field is required as are five years of college teaching experience, research experience, a background in curriculum development and outstanding communication skills. and outstanding communication skills. Publications are a plus. All applications should include a cover

An applications should lictude a cover letter, curriculum vitae and the names and addresses of three references. Address applications to Academic Dean, Globe Institute of Technology, 291 Broadway - 2d Floor, New York, NY 10007. Fax: 212-227-5920. Email: irena.shteyn@globeinstitute.org. Applica-tions will be accepted until the position is tions will be accepted until the position is filled.

For more information about ou

For more information about our college, please visit our website at http:// www.globeinstitute.org. Globe Institute of Technology is an Equal Opportunity/Affirmative Action

employer, and strongly encourages applications from women and minorities.

Harvey Mudd College Computer Science

Computer Science Assistant Professor (http://www.cs.hmc.edu) The Computer Science Department of Harvey Mudd College intends to appoint a tenure-track Assistant Professor of Computer Science, to start 1 July 2000 (classes start about 1 September). Ambienter, for one ware viriting, appoint Applicants for one-year visiting appoint-ments or partial appointments (such as sabbatical visitors) will also be considered. While applicants are invited from all areas of computer science, those teaching and conducting research in one or more of the following are preferred: software architec-

tollowing are preferred: software architec-ture, distributed systems, artificial intelligence, languages, and visualization. The successful candidate will have completed the Ph.D. in Computer Science by the time of appointment, and is expected to devote attention to excellence in teaching, as well as to the development of a sessenge program involving under. of a research program involving under-graduates. Harvey Mudd College is a highly

selective undergraduate college (650 students) emphasizing science, mathemat-ics, and engineering. It is a member of the Claremont Consortium in Southern

Claremont Consortium in Southern California, which collectively provides the equivalent of a small university environ-ment in a pleasant residential community. The Computer Science Department offers a wide array of courses in both foundations and advanced topics in computer science. Qualified, students computer science. Qualified students engage in research and publication with faculty members. The department's Computer Science Clinic provides a stra link to the industrial community in the form of yearlong student projects. The normal teaching load is two courses per semester, plus supervision of Clinic and

semester, puis supervision or Climic and research projects. Applicants should respond with a curriculum vitae, a statement regarding teaching and research philosophy or plan, and supporting materials such as reprints. Concurrently, please ask three references to write to us directly. Email applications and feference letters (plain text prefered) are reference letters (plain text preferred) are accepted: keller@cs.hmc.edu. Professor Robert M. Keller, Chair

Computer Science Department

Professional Opportunities Harvey Mudd College 301 E. Twelfth Street

Claremont, CA 91711 Harvey Mudd College is an Equal Opportunity Employer. Applications from members of groups typically underrepresented in college computer science faculties are strongly encouraged.

Iowa State University Department of Computer Science http://www.cs.iastate.edu

We seek outstanding applicants for several tenure-track faculty positions at all levels. Preference will be given to candi-dates in parallel and distributed computing, dates in parallel and distributed computing networks, bioinformatics, database and knowledgebase systems, software engineer-ing, intelligent software agents, machine learning, and programming languages. The position requires a Ph.D. in Computer Science or a related field, and strong evidence of research and teaching potential potential.

The department currently has thirteen full time tenure-track faculty and offers BS, MS, and Ph.D. degrees in Computer Science. It also participates in iteratepart-mental graduate programs in Bioinformatics and Computational Biology and Neuroscience. It has strong research and education programs in algorithms, artificial intelligence, bioinformatics and computational biology, complexity theory and complex systems, databases, networks, parallel and distributed computing, programming languages, robotics, software engineering, and theory of computing. A strong graduate program, a well-funded research program, opportunities provided by the lowa Computational Biology Laboratory, DoE Ames Laboratory, Virtual Reality Aroplications Center, and moderate and Neuroscience. It has strong research Reality Applications Center, and moderate teaching load (three courses per year) provide an excellent work environment that nurtures leading edge research and innovative education.

Iowa State University is a major landgrant university located in Ames, Iowa grant university located in Ames, lowa. Ames is a pleasant small yet cosmopolitan city with a population of 50,000 (25,000 students), a vibrant cultural scene, and a secondary school system that ranks as one of the best in United States. It is within convenient driving distance from the cultural and entertainment opportunities offered by Kansas City, Minneapolis, and Chicago.

Applicants should send a curriculum Applicants should send a curriculum vitae, including names of three references, to: Chair of Search Committee, Depart-ment of Computer Science, Iowa State University, Ames, IA 50011. Fax: 515-294-0258, Tel. 515-294-4377, E-mail: faculty-search@cs.iastate.edu. The deadline for applications is Eedward: 15: 2000 or stuff the nexisting is

February 15, 2000 or until the position is filled. ISU is an Equal Opportunity/ Affirmative Action employer. Women and minorities are particularly encouraged to apply

James Madison University Computer Science Department Faculty Positions The Computer Science Department at

James Madison University is seeking applicants for tenure-track faculty positions at the assistant or associate professor level starting Fall 2000. Preference will be given to applicants specializing in information security, software engineering, programming languages and systems, networking and telecommunications, or multimedia systems, particularly those with industrial, business, and/or governmental experience. A Ph.D. in Computer Science or an

appropriately related field is preferred. Information about the department and university can be found at www.jmu.edu and www.cs.imu.edu. Send a letter of application with a resume and the names, addresses, and telephone numbers of three references to: CS Faculty Search Committee, College of Integrated Science and Technology, MSC 4103, James Madison University, Harrisonburg, VA 22807. Review of applications will begin January 10, 2000, and will continue until suitable applicants

are found. James Madison University is an Equal Opportunity/Affirmative Action/Equal Access employer and encourages applica-tions from minorities, women, and persons

with disabilities.

Johns Hopkins University

Department of Computer Science The Department of Computer Science at The Johns Hopkins University is seeking applications for tenure-track faculty positions at all ranks. We have particular interest in candidates with research and teaching interests overlapping existing strengths in the department. These strengths include natural language processing, algorithms, networking and processing, algorithms, networking and distributed systems, information security, computational biology, programming languages, human-computer interaction, vision, and graphics. Also of significant interest are candidates with interests overlapping research centers currently affiliated with computer science at Hopkins: the Center for Language and Boach Percessing, the Center for Hopkins: the Center for Language and Speech Processing, the Center for Networking and Distributed Systems, the Computer-Integrated Surgical Systems and Technology, and the Center for Computa-tional Medicine & Biology.

tional Medicine & Biology. All applicants must have a Ph.D. in Computer Science or a related field and are expected to show evidence of an ability and willingness to develop academic research and teaching programs of the highest quality. Commitment to quality teaching at the undergraduate and graduate levels will be required of all candidates consid-ered. ered

Johns Hopkins is a private university well known for its commitment to academic excellence. Accordingly, Hopkins attracts extremely talented undergraduates and graduate students. T Department of Computer Science stands The among the first rank of departments at Hopkins in terms of funded research activities and student involvement in educational programs. The administration at Johns Hopkins recognizes the major role computer science and information technology must play in the future of the University. The anticipated expansion in faculty and infrastructure in the Depart-ment of Computer Science is directed at further increasing national and interna-tional recognition of our research and teaching programs. See the department webpage at http://www.cs.jhu.edu for additional information about the departadditional monitation about the departs ment, including links to research laborato-ries and centers. Applicants should have (ASCII or

PostScript copies of) a comprehensive curriculum vitae, a statement of future plans for research and teaching, and at least three letters of reference sent via e-mail to search@cs.jhu.edu. To ensure full consideration, complete electronic applications should be received by February 1, 2000. Applications may also be sent to: Faculty Search Committee, Department of Computer Science, Room 224 New Engineering Building, Johns 224 New Engineering Building, Johns Hopkins University, Baltimore, MD 21218-2694. Fax: 410-516-6134. The Johns Hopkins University is an Equal Opportunity/Affirmative Action ornplower

Kansas State University Department of Computing and Information Sciences

Faculty Position

employer

The Department of Computing and Information Sciences at Kansas State University invites applications for a tenure-Applicants should have a Ph.D. degree in computer science by the starting date of the appointment; salary will be commensu-rate with qualifications. Applicants must be committed to both teaching and research. Primary consideration will be given to computer scientists who work in data/knowledge base systems, programming languages, distributed and parallel systems and software engineering. Applications must include descriptions of teaching and research interests along with copies of representative publications. Non-U.S.

citizens must include visa status. The department has a faculty of seventeen and offers BS, MS, MSE, and Ph.D. degrees. Computing facilities center around a network of UNIX- and Solaris-based single- and multi-processor Sun workstations, X-terminals, and PCs. Details can be found at the URL http:// www.cis.ksu.edu/ Please send applications to Dr. Virgil Wallentine, Head, Department of Computing and Information Sciences, 234 Nichols Hall, Kansas State University, Manhattan, KS 66506 (email: virg@cis.ksu.edu). Review of applications will commence January 15 and will continue until the positions are filled.

Kansas State University is an Affirmative Action Equal Opportunity Employer.

La Salle University Department of Mathematics and Computer Science

La Salle University's Department of Mathematics and Computer Science invites applications for a tenure-track faculty position in Computer Science at the rank of Assistant Professor beginning Fall, 2000. La Salle is a Roman Catholic institution of bieher Education in the tradition of the Da higher Education in the tradition of the De La Salle Christian Brothers. The university strives to offer, through effective teaching, quality education founded on the idea that quarity education rounded on the idea that intellectual and spiritual development go hand in hand mutually complementing and fuffiling one another. Candidates should have a Ph.D. in Computer Science although candidates who are ABD will be considered. The successful candidate will be expected to teach and advise both undergraduate and graduate students in undergraduate and graduate students in Computer Science. The department is interested in all areas of Computer Science and Information Technology with a special interest in networks, client/server environ-ments, distributed computing, multimedia system design, software engineering, and

project management. La Salle University offers the B.A. and B.S. degrees in Computer Science, the B.S. degree in Information Technology, the B.A. degree in Digital Arts and Multimedia Design, and the M.S. degree in Computer Information Science. The typical teaching load is twelve undergraduate hours per semester. Instructors who teach a gradu course may reduce this teaching load to r aduate nine hours.

Please submit a curriculum vita. three letters of recommendation (with at leas one addressing the applicant's teaching experience), and a letter indicating experience), and a letter indicating teaching and research interests to: Linda J. Elliott, Chair, Department of Mathematics and Computer Science, La Salle University, 1900 West Olney Avenue, Philadelphia, PA 19141-1199 (elliott@lasalle.edu). Review of applications will begin immediately and continue until the position is filled. La Salla University is on Fourd

La Salle University is an Equal Opportunity, Affirmative Action employer.

Lehigh University Department of Electrical Engineering and Computer Science

The Electrical Engineering and Computer Science Department of Lehigh University is seeking applicants at all levels for tenure track positions in Computer Science and Computer Engineering. Exceptional applicants with a doctorate (by September of 2000) in any area of Computer Science or Computer Engineer ing are sought, with preferences in networking, compilers, languages, embedded systems, computer architecture, and software systems. Applicants must have a proven record of innovative research and be committed to teaching.

The EECS department has high quality Computer Science and Computer Engineering divisions with approximately 50 MS and Ph.D. students and \$471,000 50 MS and Ph.D. students and 34/1,000 per faculty member in external research funding. Approximately 30% of the Computer Science and Computer Engineer-ing faculty are NSF PYI or CAREER grant winners. See www.eecs.lehigh.edu for more information. Lehigh University is committed the accuriting and pathings. committed to recruiting and retaining

women and minorities. Lehigh University is in a beautiful sylvan setting in Bethlehem, Pennsylvania, which is 80 miles west of New York City and 60 miles north of Philadelphia, and which offers an excellent mix of urban and rural lifestyles. Lehigh, with 4500 undergraduates and 2000 graduate students, is small enough to be intimate but large enough to have the advantages of a big institution. The EECS department is one of six departments in the newly endowed P. C. Rossin College of Engineer-ing. Lehigh's longstanding reputation for excellence in engineering enhances opportunities for professional develop-

Applications should include a vita, names of at least three references (with both postal and email addresses) and teaching and research statements. Send applications to

Professor Terrance Boult, Faculty Search Committee, Dept. of Ele. Eng. and Comp. Sci., Lehigh University

Bethlehem, PA 18015 compsearch@eecs.lehigh.edu The review of applications will begin 1 February 2000.

Louisiana State University and Southern University

Anticipated Assistant/Associate Professo (Two TENURE-TRACK FACULTY POSITIONS) Louisiana State University (LSU) and Southern University (SU) in partnership with the National Science Foundation and the Louisiana Board of Regents have established a Joint Faculty Appointment Program (JFAP) in the are of high performance networking. LSU is the only Research I University in Louisian Louisiana while SU is a major Historically Black College and University (HBCU). These universities are only eight miles apart in Baton Rouge, the capital city of Louisiana, with many ongoing joint curricula and collaborative research projects. The partnership wishes to curricula and collaborative research projects. The partnership wishes to increase the diversity of engineering education in Louisiana. Through this JFAP, two tenure-track faculty positions are available at the rank of Assistant or Associate Professor, designated as a LaSER assistant/associate professor. The appoint-ment will begin Fall Semester of 2000. The successful candidates will have a 50% faculty appointment in each university, and fringe benefits will be appropriately arranged. Special provisions for these positions include; (i) a \$120,000 start-up fund for two years; (a) establishing a research lab; (b) up to two summer months salary per year for two years; (c) graduate and undergraduate student support; (d) travel, and (e) student support; (d) travel, and (e) materials and supplies. (ii) Full usage of teaching and research resources at both universities as well as full privileges of a regular faculty member at both universi-ties. An earned Ph.D. degree in Computer Science, Computer Engineering, or a closely related field with expertise in Telecommunications and Networking, Distributed Computing and related areas are preferred. Candidates possessing experience in High Performance Computing and Communication, teaching and/or industrial experience, and strong demonstrated research funding and publications record are especially encour-aged to apply. The successful candidates are expected to teach at both undergraduate and graduate levels, and develop externally funded research programs. Salary and rank will be commensurate with qualifications and experience. Science, Computer Engineering, or a with

with qualifications and experience. The Department of Computer Science at LSU offers the BS (Computer Science), MS (Systems Science), and Ph.D. degrees with approximately 250, 60, and 45 students, respectively. They receive federal grants of about \$1 million/year from AFOSR, ARO, DOE, NASA, from APOSR, ARO, DOE, NASA, DARPA, NSF, and other agencies. The Southern University presently offers a BS degree in Electrical Engineering and is expected to initiate a Masters Program in Engineering during the beginning Fall 2000 and Ph.D. in Material Science Engineering in Eul 2010. in Fall 2001.

Please submit: (a) a cover letter including vision statement addressing including vision statement addressing research and teaching goals, how to achieve these goals while being affiliated with the two institutions, and a statement of career objectives, (b) curriculum vitae, (c) a statement of work authorization status, and (d) names, addresses, and phone numbers of five references. Applications received by June 1, 2000 will be fully considered, and screening will continue until the positions are filled. Please provide these materials to: Dr. S. S. Ivengar, Chair of the Joint

S. S. Iyengar, Chair of the Joint Faculty Appointment Program Department of Computer Science Ref. Log# 0436 Louisiana State University

Baton Rouge, Louisiana 70803 LSU IS AN EQUAL OPPORTUNITY/ EQUAL ACCESS EMPLOYER

Professional Opportunities

MichiganTechnological University

Department of Computer Science Tenure Track Faculty Position Applicants in all areas of computer science and computational science and engineering (CS&E) are invited to apply for one or more tenure track faculty positions beginning September 2000, pending funding. Applicants for assistant professor positions are expected to demonstrate potential for excellence in teaching and research. Of particular interest ar software engineering. Michigan Technological University,

designated as one of four Michigan research universities, has over 6,200 students and 400 faculty. The Department has 13 fulltime faculty members and well established undergraduate and wen programs with excellent students. The Department also has a central role in the interdisciplinary CS&E Ph.D. program. I addition to supporting work in traditional computer science areas, this program fosters research and teaching in the

tosters research and teaching in the application of computer science to problems in engineering and the sciences. Facilities in the Department include a network of Sun Sparc, Digital Alpha and SGI servers and workstations, as well as Linux workstations. Research equipment includes a 128node Beowoulf cluster, a Dande Sun E4500, and Intermet 2, access 12node Sun E4500, and Internet 2 access

Michigan Technological University is located in Houghton in Michigan's scenic Upper Peninsula. Surrounded by Lake Superior and nearby forests, the commu-nity offers year-round recreational opportunities. This environment combined with a competitive compensation package and a low cost of living results in an excellent quality of life. Review of applications will continue

until the position is filled. Women and minorities are particularly encouraged to apply. Applicants should send a resume, mail address, and a list of at least three

- references to: Linda Ott, Chair Department of Computer Science Michigan Technological University Houghton, MI 49931 linda@mtu.edu (906) 4872209
- For more information see our web page http://cs.mtu.edu/. Michigan Technological University is an

equal opportunity educational institution/ equal opportunity employer.

MiddleTennessee State University Computer Science Department

One or more positions at Assistant/ Associate rank. A Ph.D. in Computer Science required. Evidence of excellence in teaching ability and demonstrable potential for research in computer science are required.

Department currently offers an MS and a CSAB/CSAC accredited BS in Computer Science. Contact Richard C. Detmer, Chairperson, Box 48, Middle Tennessee State University, Murfreesboro, TN 37130. Full position announcement available at www.mtsu.edu/~csdept.

Monmouth College Mathematics and Computer Science Department

Monmouth College, a nationally ranked liberal arts college, invites applications for a tenure-track position in the Mathematics and Computer Science Department to start either January or August of 2000. Candidates who hold or expect a Ph.D. in Computer Science are preferred, but applications from candidates with . ctorates in related fields or other outstanding credentials will be considered.

Professional Opportunities Ads Available on Web

Not all departments and organizations choose to run their Professional Opportunities ads in CRN-some ads are only distributed electronically to the Computing Research Association's Web site and jobs listserv. If you are interested in seeing more Professional Opportunities ads, access the Jobs Web page at http://www.cra.org/Jobs. If you would like to subscribe to jobs@cra.org so you can read the announcements before they are published in CRN (or see the ones that don't appear in CRN), send the following mail message to listproc@cra.org: subscribe jobs firstname lastname.

The successful candidate will teach a broad range of courses and help shape the computer science curriculum. Strong commitment to undergraduate teaching in a liberal arts setting is essential; interest in participating in the College's General Education program is a plus. Teaching load is 21 to 24 semester hours per year. Send letter of interest, curriculum vitae,

statement of teaching philosophy, evidence of effective teaching, and three letters of Michael McNall, Director of Personnel

compsearch@monm.edu. compsearch@monm.edu. Formal evalua-tion of applications will begin immediately and continue until the position is filled. Monmouth College, an equal opportunity employer, is committed to diversity, and encourages applications from women and minority candidates.

New Jersey Institute of Technology Department of Computer and Information Science

Outstanding candidates are sought in all areas of computer and information science for multiple tenure-track positions at all levels. We are particularly looking for candidates working in areas that will complement or build upon our existing strengths.

NJIT is a public, technological research university serving more than 8,000 students. The school has a rapidly growing research culture and funding record. The university is located in northeastern New Th Jersey, just a short distance from New York City

With a total enrollment of over 2,000 (including eighty Ph.D. students), the department offers BS, MS, and Ph.D. the degrees in both computer and information science.

Interested candidates should send their curriculum vitae, and also request three letters of reference be sent to: Chair, Computer and Information

Science Science Search Committee New Jersey Institute of Technology Personnel Box F-CIS

University Heights

Newark, New Jersey 07102-1982 Additionally, please send an e-mail copy to "recruit@cis.njit.edu". See http:// www.cis.njit.edu, for more information on the department. Applications will be considered continuously from November 1 through the end of April.

New Mexico Institute of Mining and Technology

Part-time Instructor New Mexico Institute of Mining and Technology seeks applicants for one or more part-time (one year) Instructors in Computer Science. Position to begin January 2000. Successful applicant will teach Computer Science courses, especially Operating Systems and related courses. Master's Degree required in Computer Science, Engineering or closely related field. Must have teaching experience at the undergraduate level and industrial experience in Computer Science. Must be fluent in written and spoken English. Must have computer skills. Submit resume, three references, transcripts, and letter of application to New Mexico Institute of Mining and Technology, 801 Leroy Pl., Human Resources Wells Hall Box 132A, Socorro, NM 87801. For more informa-tion on New Mexico Tech www.nmt.edu. E-mail applications **not** accepted. AAEOE

New Mexico State University

Department of Computer Science The New Mexico State University Department of Computer Science invites Department of Computer Science invites applications for one or two tenure-track asistant/associate professor position(s) in computer science beginning academic year 2000-2001. Strong commitment to both research and teaching required. Applica-tions from women and members of minority groups invited. Qualifications include a Ph.D. in Computer Science or closely related discipline (in hand by date of hire) and research. The Department has 12 tenure-track faculty positions, and offers teaching and research. The Department has 12 tenure-track faculty positions, and offers B.S., M.S., and Ph.D. degrees. The Department collaborates with the Computing Research Laboratory (CRL), an independent research center at NMSU. Departmental facilities include a network of come of Science understations a. 14 Department and the include a network of some 60 Sparc workstations, a 14-processor Sun Sparc, a 32-node Beowulf, and several other multiprocessors. The Department recently received \$1.5m grant from NSF to upgrade its infrastructure. from NSF to upgrade its infrastructure. Arrange for vita, short research descrip-tion, and at least three reference letters to be sent by postal mail directly to: Faculty Recruiting Committee, Department of Computer Science, NMSU MSC CS, PO Box 30001, Las Cruces, NM 88003-8001. Application review will begin January 31, 2000. NMSU is an EEO/AA employer.

Northwestern University

Computer Science Department Invites applications for the Lisa Wissner-Slivka and Benjamin Slivka Junior Chair of Computer Science. We seek outstanding junior candidates in all areas of systems, broadly construed, including operating systems, multimedia, databases, programming languages and environments, distributed systems, networking, and graphics and animation. Outstanding

candidates from other areas of computer

candidates from other areas of computer science may also be considered. Send applications to Search Commit-tee, Northwestern University, Computer Science Department, 1890 Maple Ave., Evanston, IL 60201, by Feb. 1, 2000. Northwestern University is an Equal Overcontent of the Event

Opportunity/Affirmative Action Employer. Hiring is contingent upon eligibility to work in the United States. Applications by women and minorities are especially encouraged.

Northwestern University Computer Science Department

Invites applications for the Board of Trustees Chair of Computer Science. We seek outstanding candidates in all areas of systems, broadly construed, including operating systems, multimedia, databases, programming languages and environments, distributed systems, networking, and graphics and animation. Candidates should have a proven record of research leadership

nave a proven record of research readership in computer science. Send applications to Search Commit-tee, Northwestern University, Computer Science Department, 1890 Maple Ave., Evanston, IL 60201, by Feb. 1, 2000. Northwestern University is an Equal Opportunity/Affirmative Action Employer. Hinne is contingent unon elioibility to

Hiring is contingent upon eligibility to work in the United States. Applications by women and minorities are especially encouraged.

Ohio University Faculty Positions School of Electrical Engineering and Computer Science

After two highly successful years After two highly successful years of faculty recruiting, the School of Electrical Engineering and Computer Science (EECS) of the Fritz J. and Dolores H. Russ College of Engineering and Technology at Ohio University anticipates hiring two additional tenure-track faculty in Computer Science and/or Computer Engineering at the rank of Assistant Professor. Qualified applicants in all areas of Computer Science and Computer Engineering are encouraged to apply, but special considerations will be given to candidates in operating systems/distrib-uted systems, parallel processing, and graphics.

All faculty are expected to participate and in obtaining and participating in sponsored research. Applicants must have a Ph.D. or equivalent in Computer Science, Electrical Engineering, or Computer Engineering. Salary considerations will be based on qualifications; the school provides nationally competitive compensation, including initial summer support and equipment funds.

compensation, including initial summer support and equipment funds. Applications will be accepted until the positions are filled; however, on-campus interviews of candidates will begin in January 2000. Send a vita including a statement of research and teaching objectives and the names of at least three references to Dr. Dennis Irwin, Chair, School of Electrical Engineering and Computer Science, Stocker Center, Ohio University, Athens OH 45701-2979; irwim@homer.ecc.ohiou.edu. Ohio University is an equal opportunity and affirmative action employer.

OhioWesleyan University Department of Mathematics and Computer Science

Applications are invited for a tenuretrack position in computer science at the Assistant or Associate rank beginning in August 2000. A Ph.D. (completed by the time of appointment) in Computer Science or a closely-related field is required. Responsibilities include teaching a broad range of undergraduate computer science courses, developing a program of scholarly/ professional activities in computer science, and working closely with undergraduates both in and out of the classroom. A commitment to high-quality undergraduate education is required. Applicants in any areas of expertise will be seriously considered; some preference may be given to applicants with expertise, interest, and/ or experience in the areas of parallel/ distributed computing, operating systems, or artificial intelligence.

The Department of Mathematics and Computer Science has a faculty of seven and offers majors in computer science and mathematics. Departmental computing facilities include a laboratory of UNIX workstations, a parallel-computing cluster, a small fleet of robots, and a number of personal computers. University computing facilities include a variety of mainframes as well as a number of Window-based microcomputer laboratories, one of which is designated for primary use by computer science and mathematics courses. Our department offers an established, successful, growing computer science major.

Idi, growing computer science major. Ohio Wesleyan University is a selective, undergraduate-only liberal arts and sciences institution of 1,800 students located in Delaware, OH, a community of 21,000 located twenty miles north of Columbus (the state capital, having a metropolitan population of 1.5 million). The university has a continuing tradition of excellence in science education. Science programs and facilities are a focus of the university's current capital campaign, and planning for expanded, renovated science facilities (in which the Department of Mathematics and Computer Science will be housed) is being completed, with construction to begin as fund-raising progresses.

Trund-raising progresses. To apply, send cover letter, curriculum vitae, brief statement of teaching and research interests, graduate and undergraduate transcripts (unofficial acceptable), and three letters of recommendation to: Computer Science Search, Department of Mathematics and Computer Science, Ohio Wesleyan University, Delaware, OH 43015.

Applications complete as of January 24, 2000 will be guaranteed full consideration, with later applications reviewed as needed. Further information is available at www.owu.edu/-massweb. Ohio Wesleyan University is an affirmative action/EEO employer and encourages women and minority applicants.

Oklahoma State University Computer Science Department

Computer Science Department Applications are invited for anticipated full time, tenure-track positions at the Assistant Professor level. The term of initial appointment will begin in Fall, 2000. The Oklahoma State University (OSU) Computer Science Department is seeking university for an university in the seeking

The Oklahoma State University (OSU) Computer Science Department is seeking applications from qualified candidates with teaching and research experience in any areas of Computer Science. Preference will be given to candidates with research experience in artificial intelligence, database systems, or programming

Professional Opportunities

languages. The ability to teach highly technical courses in Computer Science is critical. A Doctorate in Computer Science or a closely related area is required. The OSU Computer Science Depart-

The OSU Computer Science Department is a growing department that is committed strongly to the goal of excellence in research, teaching and extension. It offers a full range of undergraduate and graduate courses leading to B.S., M.S., Ph.D., and Ed.D. degrees in Computer Science. The department recently expanded its B.S. and M.S. programs to the new OSU campus in Tulsa, OK and also offers courses to students ar tremote sites using interactive video and the World-Wide Web. There are currently more than 190 graduate students and more than 190 graduate students molecular in the department. The department has a goal of CSAB/CSAC accreditation within the next few years.

goal of CSAD/CSAC accreditation within the next few years. Tulsa is one of two metropolitan cities in Oklahoma, Iolasi is 65 miles east of Stillwater, where the main campus of OSU is located. The population of Tulsa is about 380,000, and the population of Tulsa County is about 530,000. There are numerous cultural activities in Tulsa, including a performing arts center that regularly hosts touring froadway shows, and the Tulsa opera, ballet and philharmonic orchestra. Just a few minutes away, one also can enjoy outdoor activities such as fishing, boating, and hiking. Oklahoma State University encourages applications from qualified women,

Oklahoma State University encourages applications from qualified women, minorities, and persons with disabilities. Please send curriculum vita and names of three references to Chair, Faculty Search Committee; Computer Science Department; Oklahoma State University; Stillwater, OK 74078-1053. Telephone: (405) 744-5668; FAX: (405) 744-9097.

(40) [H+500; H+501]. E-mail:faculty-search@cs.okstate.edu: WWW:http://www.cs.okstate.edu.search. For full consideration applications should be received by January 15, 2000, but applications will be accepted until the position has been filled. Oklahoma State University is an Affirmative Action/Equal Opportunity Employer.

Oregon Graduate Institute of Science and Technology Department of Computer Science and Engineering

The Department of Computer Science and Engineering has immediate openings for qualified faculty candidates. Currently identified goals include starting new programs in networking, embedded systems, computational science, and computer architecture, and expanding our existing efforts in systems, computational finance, data management, software engineering, and applied formal methods. In addition we are interested in candidates in our other established research areas, which include database systems, distributed computing, functional programming, neural networks, human computer interaction, and spoken language systems. We encourage applicants at all ranks, but will give preference to applicants with prior faculty or postdoctoral research and teaching experience. Exceptional candidates who are naticipating completion of a Ph.D. may also be considered. OGI is a private graduate school. It conducts internationally acclaimed research

Corl is a private graduate school. If conducts internationally acclaimed research and provides outstanding graduate and professional education in science and technology. CGI is located near Portland, Oregon, in the beautiful Pacific Northwest. Portland offers extensive cultural amenities (gourmet coffee, brew pub ale, and fine local Pinot Noir are popular local favorites) as well as spectacular natural wilderness. It is possible to spend summer mornings skiing on Mt. Hood, followed by some of the best windsurfing in the world in the Columbia River Gorge in the afternoon. In short, the quality of life in Portland is extraordinary. OGI offers career faculty appointments but does not subscribe to readomic true

appointments but does not subscribe to academic tenure. More information about our department can be found at http:// www.cse.ogi.edu. To find out why the Portland area is a great place to live go to http://www.portland.citysearch.com.

To apply, send a brief description of research interests, the names of at least three references, and a curriculum vitae with a list of publications to:

NORTHEASTERN UNIVERSITY

COLLEGE OF COMPUTER SCIENCE

Boston, Massachusetts

Trustee Professorship in Computer Science

The College of Computer Science of Northeastern University invites applications and nominations for the position of Trustee Professor of Computer Science. This position is one of the first endowed chairs to be recruited in a longer range program to add a total of eight new endowed Trustee Professorships throughout the University.

We seek renowned scholars who have achieved national and international distinction in the field of computer science. It is expected that applicants will possess an established record of scholarship, effective teaching and external research funding. The ability to interact with industrial partners and the potential to provide leadership in research are essential.

The College maintains astrong research program with significant funding from the major federal research agencies and private industry. Ithas particular strengths in programming languages and software engineering, distributed computing, databases, artificial intelligence, and cryptography. The College's NSF-sponsored 32-node Beowulf-class network for research in distributed systems will begin operation this year in a special laboratory housed in the new Egan Engineering Science Research Center.

The College has a diverse full-time faculty of 21. There are 500 undergraduates, 125 Mastersstudents and 30Ph.D. students. The College inaugurates this year an innovative B.S. program in Information Science, combining traditional computer science with relevant material from the social sciences in an integrated program that focuses on the interaction between information, computers, and people.

Located on the Avenue of the Arts in Boston's historic Back Bay, the College takes advantage of its location to foster collaborations with other institutions in the greater Boston area.

Please send a resume, statement of research interests, and the names of referees to:

Faculty Hiring Committee, College of Computer Science, 161 Cullinane Hall, Northeastern University, Boston, Massachusetts 02115.

Screening of applications begins on December 15, 1999, and will continue until the position is filled. For further information, send e-mail to hiring @ccs.neu.edu or see the College's home page at http://www.ccs.neu.edu/hiring.

The College also invites applications for one or more tenuretrack faculty positions at the Assistant or Associate Professor level beginning in Spring or Fall 2000. Candidates will be considered from all major disciplines of computer science. A Ph.D. in computer science or related field is required. See the College's home page for details and application procedures.

Northeastern University is an Equal Opportunity/Affirmative Action Employer. We strongly encourage applications from women and minorities.

Chair, Recruiting Committee, Department of Computer Science and Engineering, Oregon Graduate Institute, 20000 NW Walker Road, Beaverton, Oregon 97006, E-mail: csedept@cse.ogi.edu.

OGI is an Equal Opportunity/ Affirmative Action employer. We particularly welcome applications from women, minorities, and individuals with disabilities.

Appointment is subject to the availability of funding.

Oregon Institute of Technology

Software Engineering Technology Faculty Oregon Institute of Technology, a member of the Oregon University System, is initiating a search to hire a full time, faculty member to teach within the Software Engineering Technology degree program.

Primary responsibility includes teaching undergraduate courses in the areas of C/ C++, GUI, Data Structures, Compiler Writing, Database Systems, Operating Systems Development, and Networks. Other duties include participation in curriculum and course development. student recruiting and retention, advising, and acquisition of external funding. Minimum qualifications include a master's degree, Ph.D. desirable, in

Computer Science or related discipline and at least three years of software development

experience. experience. Initial screening of applications will begin on January 15, 2000, and will continue until the position is filled. To apply, send a letter of application, current resume and names, addresses, and phone numbers of three professional references to: Humon Resources - #0.66002

Human Resources - #99-66002 Oregon Institute of Technology 3201 Campus Drive Klamath Falls, OR 97601-8801

For further information, visit our Web page at www.oit.edu/jobs or phone Don Metzler, Department Chair, at (541) 885-1604. OIT is an Affirmative Action/Equal

Opportunity/ADA employer

Pacific University

Department of Mathematical Sciences Applications are invited for a tenuretrack position in Computer Science to begin August 2000. Ph.D. preferred. A more complete description of Pacific University and this position can be found

at http://www.cs.pacificu.edu/csad.html. Applications should include a letter of application, curriculum vitae, three letters of reference and unofficial transcripts. Complete applications must be received by

post. Application review will begin December 15.

. Direct your application to Computer Science Search ATTN: Michael Boardman Pacific Univers 2043 College Way Forest Grove, OR 97116

Polytechnic University Department of Computer and Information Science

Polytechnic University's Department Computer and Information Science is continuing a major expansion and has several open positions at all levels for tenured or tenure-track faculty at our Brooklyn and Long Island campuses. Brooklyn and Long Island campuses. We are particularly interested in candidates in computer systems, architecture, networks, databases, and image processing, but will consider strong candidates in other areas. Excellence in research and teaching are required. Candidates should have cimptioner problemations and the ability to significant publications and the ability to

secure external research funding. Current active areas of research in the department include computational geometry, image processing, databases, theory, parallel and distributed systems, software engineering, and text mining. Faculty research is supported by numerous

Faculty research is supported by numerou NSF grants and by funding from industry and other government agencies. Polytechnic University (formerly known as Brooklyn Poly) is located on three campuses in the New York City metropolitan area, close to many major companies in the financial, telecommuni-cations and computer industries. For cations, and computer industries. For

Professional Opportunities

more information, see http://cis.poly.edu and http://www.poly.edu

Qualified applicants should send their curriculum vitae to Prof. Lisa Hellerstein, Head of CIS

Fron Lisa Heilerstein, Flead of CIS Search Committee, c/o Human Resources, Polytechnic University, Six MetroTech Center Brooklyn, NY 11201, or by e-mail to facsrch@morph.poly.edu. Candidates are strongly encouraged to apply by January 14, 2000 but applica-tions will be considered while positions are still open

still open. Polytechnic is an Equal Opportunity Employer. AA/E0E.

plover. Portland State University

Positions in Computer Science Portland State University anticipates one or more tenure-track, nine month faculty positions to begin Fall 2000. The positions preferably will be at the Assistant Professor Level, but candidates will be considered at all levels. The department's strengths are in database, software engineering, and programming languages, and we are also building a systems/networking group, which could include a computer security aspect. Our intention is to build on these strengths, but excellent applicants in all areas will be considered.

The department currently has sixteen faculty and offers a CSAB accredited B.S and a vigorous graduate program in Computer Science. Our graduates at all levels are in high demand by local industry, and there is opportunity for research collaboration with industry colleagues and with faculty at the nearby Oregon Graduate Institute. Our teaching loads give faculty time to maintain quality research and teaching programs and to interact with local industry. The depart-ment currently serves approximately 350 undergraduates and 100 graduate students. Further information about the department is available at http:// www.cs.pdx.edu.

Portland State University is located in downtown Portland, Oregon. Portland's "Silicon Forest" is one of the major software/hardware development centers in the country. Within the Portland metropolitan area are over 200 hardware and software companies, including the world headquarters of Tektronix, InFocus world headquarters of lektronix, In/ocus, and Mentor Graphics, major R&D sites of Oracle and Informix, the former Sequent Corp., now a division of IBM, and the site of the world's largest campus of Intel, along with many other companies ranging from mair corrections: the offenere street from major corporations to software start from major corporations to software start ups. The University is approximately one hour from magnificent beaches and from year-round skiing. Review of applications will begin immediately and will continue until the positions are filled. Please send a statement of research and teaching interests a vita, and the names of three

interests, a vita, and the names of three references to. Frences to: Faculty Search Committee Department of Computer Science Portland State University PO Box 751 Portland, OR 97207-0751 Portland State University is an equal opportunity/affirmative action employer

Princeton University

Department of Computer Science The Department of Computer Science at Princeton seeks applications from outstanding teachers to assist the faculty in teaching our introductory course sequence. There is no deadline for applications, but candidates are encour aged to apply early. Candidates should have an exceptional record of classroom instruction and curricular innovation. instruction and curricular innovation. Princeton University prides itself on the quality of its undergraduate teaching and the Computer Science Department is committed to being a leader in developing new courses and teaching methods. The job involves teaching recitation sections (two or three per semester) in the form and second wave courses as well as

first and second year courses as well as certain responsibilities for overall management of the introductory sequence. There is also work supervising graduate students serving as assistants in instruc-tion (i.e TA's) and developing curricular material, classroom demonstrations, and laboratory exercises. Lecturers are

appointed to one-year terms, renewable for up to six years. Promotion to the rank of senior lecturer, with unlimited renewable terms, is a possibility. We are seeking candidates who are interested in arthliking a least of the senior sector of the sect establishing a long-term professional relationship at Princeton. Qualified applicants should send a letter of application, a resume, and the names of four references to:

Lecturer Recruiting Committee Department of Computer science Princeton University

Princeton, NJ 08544 Princeton University is an Equal Opportunity/Affirmative Action Em-

Princeton University Department of Computer Science

The Department of Computer Science at Princeton University invites applica-tions for Assistant Professor, tenure-track positions. We are entertaining applica-tions in all areas of computer science. Candidates for more senior ranks with exceptional records of research will also be exceptional records of research will also be considered. Applicants must demonstrate superior research and scholarship potential as well as teaching ability. A Ph.D. or equivalent in Computer Science or related areas is required. Successful candidates at all ranks are expected to pursue an active research program and to contribute significantly to the teaching programs of the department. Applications should include a resume

and the names of at least three people who can comment on the applicant's profes-sional qualifications. Applicants should be sent to:

Chair, Search Committee Dept. of Computer Science Princeton University Princeton University 35 Olden Street Princeton, NJ 08544-2087 E-mail search@cs.princeton.edu The Committee will begin to consider application in January 2000. Princeton University is an Equal Opportunity/ Affirmative Action employer.

Purdue University Computing Research Institute DIRECTOR

Purdue University seeks a person with vision to direct its Computing Research Institute. The Institute's mission is to enhance computing research across the Purdue campus by providing focus for interdisciplinary initiatives and by facilitating large innovative research programs. The University is prepared to invest resources to achieve this end. Position Responsibilities

The Director will provide leadership for activities designed to promote and facilitate research in computer systems and their applications in science and engineering; lead development of collaborative relationships with govern-ment and industry; assist faculty in identifying research opportunities; and organize multidisciplinary research programs.

The appointment is full-time with a minimum half-time effort devoted to Institute leadership. Remaining effort may include responsibilities in research, education, and administrative duties Requirements Applicants must have a Ph.D. in a

science or engineering discipline and must have demonstrated effective leadership of multi-investigator research programs. Administrative and academic experience should be commensurate with an appointment to a Full Professor faculty

The Director will report to the Vice President for Research and Dean of the Graduate School

Applications/Nominations

Applications/Nominations A review of applications will com-mence December 1, 1999, and continue until the position is filled. Nominations or applications containing a résumé and names of three references should be sent

Dr. Richard J. Schwartz, Chair of the Search Committee Dean, Schools of Engineering Purdue University 1280 ENAD Building West Lafayette, In 47907-1280 Tel. 764-494-5346; Fax: 765-494-9321

Purdue University is an Equal Opportunity/Affirmative Action Employer

Purdue University

Department of Computer Sciences Department of Computer Sciences The Department of Computer Sciences at Purdue University invites applications for tenure-track positions available are at the assistant professor level. Appoint-ments at the associate and full professor levels, however, will be considered for birthe availed opplication Aparts of highly qualified applicants. Areas of interest are: software engineering, computer graphics and scientific visualiza-tion, systems, and scientific computing. Excellent candidates in other areas of Computer Science and its applications will be seriously considered. Senior candidates must possess a distinguished record of accomplishments in research, teaching, and service. Applicants should hold a Ph.D. in

Computer Science, or a closely related discipline, and should be committed to excellence in teaching and research. Salary is competitive and depends on back-

ground and experience. Successful applicants will find at Purdue a stimulating and nurturing academic environment. Computer Sciences at Purdue is a growing depart-ment with a variety of interesting research activities in analysis of algorithms databases, distributed and parallel computing, geometric modeling and scientific visualization, information security, networking and operating systems, compilers, programming languages, scientific computing, and software engineering. Each faculty member has access to the departmental and University computing facilities, which include a variety of high performance computing platforms. Further information about the department is available at http:/ /www.cs.purdue.edu. Candidates should send curriculum

Candidates should send curriculum vitae, statement of career objectives, and have at least three references send letters of recommendation to: Chair, Faculty Search Committee Department of Computer Sciences Purdue University West Lafayette, IN 47907 Insuiting may be cent to Inquiries may be sent to ersonnel@cs.purdue.edu. The interview-

ing process will continue until positions are filled. Purdue University is an Equal Opportunity/Affirmative Action em-

plover.

Queen's University Department of Computing and

Information Science Information Science The Department of Computing and Information Science invites applications for two tenure-track positions at the Assistant Professor or Associate Professor levels. Queens' Loiiversity is one of the top universities in Canada and is well however for the high availative of its endearce known for the high quality of its students and faculty. Queen's University is situated in Kingston, a beautiful and historic city, which is located on Lake Ontario within easy travelling distance of Toronto, Montreal, Ottawa and Syracuse. Kings offers the amenities of a large city and the

comfort of a small city. The Department of Computing and Information Science, which has 23 faculty, 16 staff and approximately 80 graduate students, is committed to excellence in both research and teaching. The faculty are doing research in a number of areas of computer science including computational imagery, molecular scene analysis, computer-assisted surgery, robotics and perception, software technology, database systems, computer networks, computa-tional geometry, parallel computation and computational linguistics. The department offers undergraduate programs in computer science, cognitive science, and software design. It also hopes to begin a

software design. It also hopes to begin a new undergraduate program in biomedical computing. Applicants for the tenure-track positions should have a Ph.D. degree in computer science or a related field. The Department will consider applicants in software engineering, intelligent systems, parallel and distributed systems and database systems. Applicants in the area of software engineering and applicants in

the four general areas whose research has applications to medical computing or bioinformatics are particularly encouraged to apply. The successful candidate will be expected to develop an active research program and to teach effectively at the undergraduate and graduate levels. Salary is commensurate with qualifications and experience.

Applicants are requested to send a curriculum vitae, including a list of publications and the names of three profications and copies of up to three recent papers to Dr. Janice Glasgow, Chair, Department of Computing and Information Science, Queen's University, Kingston, Ontario, Canada K/L 3N6. Openings are for July 2000 and beyond. Screening of applicants will begin immediately and continue until all positions are filled. Queen's University is committed to employment equity and welcomes applications from all qualified men and women, including visible minorities, aboriginal people, persons with disabilities, gay men and lesbians.

Rensselaer Polytechnic Institute

Department of Computer Science The Department of Computer Science at Rensselaer Polytechnic Institute invites candidates for tenure-track positions in NETWORKING, SECURITY, PARALLEL and DISTRIBUTED COMPUTING and and DISTRIBUTED COMPUTING and THEORY starting Fall 2000. We are committed to enhancing our strength in those research areas, however highly qualified candidates in other areas will also be considered. We also welcome applica-tions for clinical (teaching) and visiting positions positions.

Applicants should submit a vita with a list of publications, a statement describing current and planned research, and a current and planned research, and a statement describing tradiosophy to the New Staff Committee, Department of Computer Science, Renselaer Polytech-nic Institute, Troy, NY 12180-3590. Candidates should also arrange to have at least three letters of recommendation sent to the same address. The Department offers B.S., M.S., and

Professional Opportunities

Ph.D. degrees in computer science, ha multi-million dollar research program and excellent computing facilities. Rensselaer, under the leadership of the new president, plans to double its research program in the next five years and the Department of Computer Science will actively participate in this expansion. Currently, there are 17 full-time faculty members and we plan to increase the size of the faculty to about 25. There are approximately 600 undergraduate students, 70 Master's students and 70

Ph.D. students in the program. Rensselaer Polytechnic Institute is an Affirmative Action/Equal Opportunity Employer.

Rice University Department of Computer Science

The Department of Computer Science the Department of Electrical and Computer Engineering, the Center for High Performance Software, and The Center for Multimedia Communication at Rice University expect to have at least four positions in the areas of computer science and engineering available beginning in the academic year 2000-2001 and invite applications for faculty and research staff positions. We are interested in receiving positions. We are interested in receiving applications for appointments to the tenure-track faculty at the rank of Assistant Professor (however, appointment as Associate or Full Professor will be considered for exceptionally well qualified candidates), to the research faculty which may be at the rank of faculty fellow, senior faculty fellow, and distinguished faculty fellow (these are research positions), and to the research staff as a research ascoriate. or as a postdoctoral research associate. We are especially interested in candidates with research experience in algorithms and complexity, artificial intelligence, compilers, computer graphics, computer systems, database management systems, digital libraries, distributed and mobile computing, embedded systems, high-performance hardware, information retrieval, networks, programming languages, software engineering, and

parallel computing. We will consider strong candidates in other areas as well. Applicants should hold a Ph.D. degree or the equivalent in Computer Science or a related discipline or expect to complete

such requirements prior to assuming an such requirements prior to assuming an appointment. Strong evidence of a commitment to excellence both in research and teaching is required for a tenured or tenure-track appointment. Preference will be given to early applica-tions. The Departments of Computer Science and of Electrical and Computer Environment Autor. Sumble Sciences Engineering share superb research facilities. NSF Educational Innovation, Research Infrastructure and Science and Technology Center grants, along with major grants and contracts from both industrial organizations and government agencies, have enabled the departments to build parallel and multiprocessor systems laboratories, a large network of engineer-ing workstations, an extensive local area network, a high-speed network test-bed, and access to scientific communities via NSF, NASA, and Department of Energy electronic networks. The Center for High Performance Software supports several major research projects and provides access to massively parallel computer systems located at several cooperating Technology Center grants, along with access to massively paratel computer systems located at several cooperating institutions. The Center for Multimedia Communication develops embedded systems, distributed systems, and network architectures for tetherless and multimedia communication applications through collaborative research efforts. Both departments and associated centers are located in the new Computational Engineering Building, along with the Departments of Computational and Applied Mathematics and Statistics. Rice is a well-endowed private university with a strong reputation for academic excellence, particularly in undergraduate teaching. It attracts outstanding students nationally and internationally and provides a stimulating environment for research, teaching and joint projects with industry. Teaching loads are low to accommodate faculty research and faculty salaries are competitive.

Send a resume, a statement of research and teaching interests, as well as the names and addresses of at least three references to: Computer Science and Engineering Search Committee, Depart-ment of Computer Science MS 132, Rice University, P.O. Box 1892, Houston, Texas 77251-1892, before January 15, 2000. Please specify the position to which you are applying. For more information, see http://www.cs.rice.edu/ or call Iva Jean Jorgensen (713-527-4834) or send e-mail to ivajean@rice.edu. Rice University is an Equal Opportu-

nity/Affirmative Action employer.

Rutgers University Faculty Positions in Management Science and Information Systems

and Information Systems The Department of MSIS (Manage-ment Science and Information Systems) has tenure track openings in information technology, broadly defined, at the junior and senior levels for the Fall 2000 semester. The MSIS Department has research strength in generation measure research strength in operations manage ment, applied and theoretical operations research, statistics, and information systems. Candidates must have a strong quantitative educational background, be active researchers, and have either a proven record of scholarly excellence or demonstrable potential for such excellence

Candidates must have interest in information technology and a demon-strated skill in at least one of its areas. Special consideration will be given to candidates with skills in data mining, electronic commerce, and telecommunica-Affiliation with the Rutgers Center for Operations Research (RUTCOR), Center for Information Management, Integration and Connectivity (CIMIC), and Informa-tion Technology and Electronic Commerce Clinic (ITECC) may be possible. Candidates are expected to teach undergradu-ate, MBA, and Ph.D. courses in manage-ment information systems, electronic commerce, operations management,

statistics, or related topics. Applications received by January 31, 2000 are guaranteed full consideration. Applicants should send a c.v. and the

names of at least four references to Carol Gibson, MSIS Department Secretary, 94 Rockafeller Road, Piscataway, NJ 08854; FAX: (732) 445-6329; e-mail: gibson@rbs.rutgers.edu

Rutgers is an affirmative action equal opportunity employer.

Rutgers University

Department of Computer Science Faculty Positions The Department of Computer Science is seeking outstanding candidates for several tenure-track and senior tenured positions for the 2000 academic year. We are looking for outstanding

candidates for two senior faculty positions to lead our research in networking and human computer interfaces (HCI) respectively. Additionally, we are interested in

outstanding junior faculty candidates, particularly in artificial intelligence, bioinformatics, databases, digital libraries, distributed and parallel systems, network-ing (protocols, cryptography and security)

and software engineering. We are very competitive, in the last few years we have successfully recruited systems faculty from such top schools as Berkeley, Princeton and University of Washington, Seattle. The new Rutgers University strategic

plan places computer science as an area with one of the highest expected growth rates within the university. We are partners in major centers in theoretical computer science (DIMACS), cognitive computer science (DIMACS), cognitive science (RuCCS), and wireless and mobile computing (WINLAB), among others. (For more details, see http:// www.cs.rutgers.edu.) Our department also has close ties to industry including AT&T, Cisco, Hewlert-Packard, Lucent, Microsoft DEC Sciences and Sen a well Microsoft, NEC, Siemens, and Sun, as well several emerging companies in the New as several comes of at least four

vita including names of at least four professional references to Hiring Chair

Hiring Chair Department of Computer Science Rutgers, the State University 110 Frelinghuysen Road Piscataway, NJ 08854-8019 by February 1, 2000 or send email to hiring@cs.rutgers.edu for further informa-tion. We especially encourage applica-tions from women and other undertions from women and other under-represented groups.

Santa Clara University

Department of Computer Engineering The Department of Computer Engineering at Santa Clara University invites applications for a tenure-track appointment at the assistant professor level in the area of software engineering. Candidates should have a doctorate in Computer Engineering, Computer Science, or a related field, and a demon-strated potential for quality research, as well as dedication to excellence in teaching and service. Santa Clara University (http://

www.scu.edu) is a private, Jesuit university located in the heart of Silicon Valley. It located in the heart of Silicon Valley. It was established in 1851 as the first 4-year college in California. The University enrolls about 4,000 undergraduates and 4,000 graduate students. The department (http://www.cse.scu.edu) offers BS, MS, and Ph.D. degrees, has eleven full-time and truenty fine adjunct fourth and about and twenty-five adjunct faculty, and about 225 undergraduate and 350 graduate students. The department aspires to combine the University's Jesuit tradition of competence, conscience, and compas-sion with a Silicon Valley entrepreneurial spirit to educate engineers who by their personal lives and by their professional activities will make a strong positive impact on their communities and the world

Send a curriculum vitae, a brie Send a curriculum vitae, a brief description of current research with copies of three publications and the names, addresses, telephone numbers, and e-mail addresses of four references to: Dr. Dan Lewis (allewis@scu.edu), Chair, Department of Computer Engineering, Santa Clara University, Santa Clara, CA 95053. Santa Clara University is an Equal Opportunity/Affirmative Action employer.

The Computer and Information Science Department at the Polytechnic University invites nominations and applications for the Leonard Shustek Chair in Computer Science at the rank of Full Professor. We seek candidates with active and successful research programs in

distributed computing, multi-media, software engineering and other fields of applied computer science. Applicants must hold an earned doctorate degree in Computer Science or closely related field.

SHUSTEK CHAIR

The chair holder will be expected to develop an innovative and substantial research program that will attract outstanding students and faculty, stimulate research and lead to external support.

The base academic salary for the holder of the chair will be paid from Polytechnic's funds, so that funds generated by the endowment can be used to support the chair holder's research and instructional activities. Salary will be fully competitive.

Applicants should submit complete curriculum vitae along with the names, addresses and telephone numbers of at least five references. Review of applications will begin immediately and will continue until the position is filled. Send applications to Professor Richard Van Slyke, Shustek Chair Search Committee, c/o Human Resources, Polytechnic University, Six MetroTech Center, Brooklyn, NY 11201 or to shstkchr@poly.edu. Please refer to Academic Search #2499. (For information about the department see http://cis.poly.edu/.)

Polytechnic University is an equal opportunity, affirmative action employer.



Southwest Texas State University (SWT) Department of Computer Science

Applications are invited for tenure-track positions at the assistant professor level to begin Fall 2000. Applicants must have an earned doctorate in Computer Science, Computer Engineering, or an equivalent degree. A commitment to excellence in teaching, research, and service is essential.

service is essential. The Department of Computer Science, with its nineteen full-time equivalent faculty, 640 undergraduate majors, and 13: master's students, is part of SWT, a comprehensive university with about 22,000 students. SWT is located in San Margar Tenge a partie allow term show Marcos, Texas, a scenic college town close to both Austin and San Antonio. With proximity to many major high-tech companies, the department and the university have enjoyed significant growth in the past decade. For more information see http://infinite.cs.swt.edu/recruitment/.

Application review will begin February 1, 2000, and will continue until the positions are filled. To apply, send a printed resume and a list of at least three references with telephone, e-mail, and postal addresses to: Chair, Recruitment Committee Department of Computer Science Southwest Texas State University 601 University Drive San Marcos, TX 78666-4616.

Although printed applications are preferred, applications can also be sent electronically (in postscript form only) to hiring@cs.swt.edu. SWT is an AA/EEO employer. Women

and minorities are encouraged to apply.

Stanford University Department of Computer Science

Departmention computer Science Faculty Opening The Computer Science Department of Stanford University invites applications for a tenure-track faculty position at the Assistant Professor level. We are seeking applicants from all areas of Computer Science, including Foundations, Artificial Intelligence Graphice Detabases Sciences Intelligence, Graphics, Databases, Systems, and Networking. The department has also a particular interest in applicants who wish in purchase in departments in appreciate who was to pursue a research program at the frontiers of computer science, for instance in bioinformatics, quantum computing, computation and arts, or computational economics. Higher priority will be given to the overall innovation and promise of the candidate's work than to any specific area.

An earned Ph.D., evidence of the ability An earned Ph.D., evidence of the ability to pursue a research program, and a strong commitment to graduate and undergradu-ate teaching are required. The successful candidate will be expected to teach computer science courses at the graduate and undergraduate levels and to build and bed a temp of graduate vident in Ph.D. lead a team of graduate students in Ph.D. research. Further information about the Computer Science Department can be found at http://www-cs.stanford.edu.

Applications will be accepted until February 15, 2001, or until the position has been filled. Applicants interested in a position starting Autumn 2000 are strongly encouraged to apply before March 15, 2000. Applications should include a curriculum vitic attraement of research and curriculum vita, statements of research and teaching interests and the names of at least four references. The application should be sent

Professor Jennifer Widom, Search Committee Chair c/o Laura Kenny-Carlson Computer Science Department Stanford University

Stanford University Gates 2B Stanford, CA 94305-9025 Stanford University is an equal opportunity employer and welcomes applications from women and minority group member. group members.

State University of New York at

Albany The University at Albany Computer Science Department invites applications at the Assistant/Associate level for faculty osition beginning September 2000. Candidates must have a doctorate in computer science or a related field. At the Assistant level, we seek

applicants working in distributed systems, networks, operating systems, software engineering, databases, and in areas related to high-performance computing.

Professional Opportunities

At the Associate level, strong preference will be given to those that have a demonstrated capability for research leadership and external funding. All areas will be considered.

The department has well established strengths in theory and formal methods including algorithms, data structures, strengths in theory and tormai methods including algorithms, data structures, automated reasoning and unification, software design, and especially in computational complexity(R.Stearns, Turing Award '93). Our goal is to build up applied areas to a similar strength, while maintaining and enhancing our established strengths. The Department has an active research program and offers B.S., M.S., and Ph.D. degrees. Further information on the department can be found art: http://www.cs.albany.edu Applications should be sent to: Lenore K. Mullin, Chair, Faculty Search Commit-tee, Computer Science Department, University at Albany, 1400 Washington Avenue, Albany, NY 12222 (lenore@cs.albany.edu). The University at Albany is an Equal Opportunity/Affirmative Action Em-elvare. Amolications.frow usonem

Opportunity/Affirmative Action Em-ployer. Applications from women, minority persons, handicapped persons, and/or disabled or Vietnam era veterans

are especially welcome

State University of New York at Stony Brook Department of Computer Science

Industrial Coordinator/Liaison for Computer Science

Science Applications are invited for a position of Research Assistant Professor, beginning January or May 2000, with primary responsibilities for increasing interaction between the Stony Brook Computer Science Department and local industry under the Strategic Partnership for Industrial Resurgence (SPIR). Candidates should hold a Ph.D. in Computer Science or closely related field, and have a

commitment to excellence in teaching and research at the university level. Send resumes and the names of three references to: Prof. Steven Skiena, Search Committee, Computer Science Depart-ment, SUNY Stony Brook, Stony Brook, NY 11794-4400. Compensation is competitive and depends upon experience and qualifications. SUNY Stony Brook is an Affirmative Action/Equal Opportunity employer and educator.

State University of New York at Stony Brook Department of Computer Science

The Computer Science Department of SUNY Stony Brook has several tenure track faculty positions for Fall 2000. We are particularly but not exclusively are particularly but hot exclusively interested in applications from junior faculty in the experimental computer systems area, such as operating systems, networking, graphics, databases, computer architecture, Internet-related systems, and

automated verification. The Department currently has 31 faculty members and is expected to recruit about 10 additional members in the next about 10 additional members in the next few years. There are five main active research areas in the department: graphics/visualization, logic programming/ database, concurrency/verification, computer systems, and algorithms. Detailed information on the research activities of these groups can be found in the depart-ment home page: www.cs.sunysb.cdu. The Department is also associated with a pew Center for Data-intensive Comput-

a new Center for Data-intensive Computa new Center for Data-infensive Comput-ing at the neighboring Brookhaven National Laboratory. The Center is expected to have about 10 computer scientists and will emphasize data mining, visualization, parallel and distributed computing and networking, and modeling and scientification. and simulation.

and simulation. Stony Brook enjoys close proximity to both New York City and Long Island's majestic ocean beaches. Its school districts are highly ranked nationally. Opportunities for industrial collaborations abound with many high profile IT companies close by. Moreover, the Computer Science Department offers a congenial working environment. Applicants should have a Ph.D. in Computer Science or a related discipline. Apply by sending a detailed resume, the names of at least three references, and three

publications to Professor Scott Smolka, Chair, Faculty Recruiting Committee, Chair, Faculty Recruiting Committee, Computer Science Department, SUNY at Stony Brook, Stony Brook, NY 11794-4400. Telephone: (516) 632-8453/8470; and have at least three reference letters sent to the same address. Letters may also be sent to recruit@cs.sunysb.edu. In addition, please e-mail to the same address a URL pointing to your online resume and publications

to your online resume and publications. Applications from women and minorities are particularly sought. Stony

Brook is an affirmative action/equal opportunity educator and employer

State University of West Georgia

State University of West Georgia Computing Department The Computing Department at the State University of West Georgia invites applications for two or more tenure-track positions contingent upon funding. The positions are primarily at the assistant professor level, but highly qualified applicants at higher ranks will be consid-

The Department is experiencing rapid growth and preparing to move to a \$20 million Technology-enhanced Learning Center by next Fall. The Department is seeking CSAB Accreditation and planning a graduate program. Requirements include a Ph.D. in

Computer Science and a commitment to quality teaching. We are especially interested in candidates specialized in database, networks, programming languages or OS systems. Applicants should submit curriculum vitae and three letters of references to: Adel Abunawass

Computing Search Computing Department State University of West Georgia Carrollton, GA 30118

Carroliton, GA 30118 E-mail: Adel@WestGA.Edu Review of completed applications will begin January 15, 2000, but the search will remain open until all positions are filled. The State University of West Georgia is an EO/AA Employer.

Syracuse University Department of Electrical Engineering and Computer Science Multiple Positions The department invites applications for:

The department invites approaches to (1) one tenured senior faculty position in RF/Wireless systems with a starting date of January 1, 2000, or as soon as possible thereafter. New positions: (2) two tenurearea of wireless communication systems; (3) at least two tenure-track junior faculty positions in one of the following areas: software and distributed systems, VLSI systems and CAD; (4) one temporary-term, non-tenure-track faculty position to teach courses central to CE and/or CS Application deadline is January 15, 20 or until the position is filled, and the 2000 starting date is August 23, 2000, or as soon as possible thereafter. For all positions, a doctorate in a field appropriate to the area is required. Submit curriculum vitae, research and teaching statements, copies of selected publications, and have three reference letters sent to: Faculty Search Committee, Department of Electrical Engineering and Computer Science, 121 Link Hall, Syracuse University, Syracuse, NY 13244-1240, USA. Please indicate

position for which you are applying. Please see: http://uplink.syr.edu/faculty/ search/d1/positions.html for more information. Svracuse University is an Affirmative

Action/Equal Opportunity Employer. Qualified individuals from underrepresented groups are urged to apply.

Temple University Center for Computer Science and

Applied Mathematics Director and Multiple Faculty Positions in Computer Science

Computer Science As part of a major expansion in the sciences, the new College of Science and Technology at Temple University is recruiting for thirty new faculty positions in the areas of Computer Science, Informa-tion Science, Biotechnology, Physical Sciences, Engineering, and Mathematics. Fifteen faculty members have already ising the College with twee presents joined the College with strong research

programs and peer reviewed grant support, resulting in an increase in excess of fiv million dollars in external funding. Faculty searches for the remaining fifteen positions

are in process. The College has formed a Center for The College has formed a Center for Computer Science and Applied Mathemat-ics. At this time, the College invites applications for multiple positions in computer science at the level of Full, Associate, or Assistant Professor in the Center. Newly hired faculty in the Center will be given traver to the competence will be given tenure track appointments primarily in the department of Computer and Information Sciences. Successful candidates are expected to have or be able to develop significant research programs and to provide effective instruction undergraduate and graduate levels on at both computer science. Appointments are possible at all academic levels appropriate to experience. Candidates for the position of Director must have nationally and internationally known research programs in computer science, extensive peer reviewed grant support, and a strong commitment to the teaching of undergraduate and graduate students. Applicants for Associate Professor or Full Professor are expected to have a substantial publications record and

an externally supported research program Areas of interest in computer science include, but are not limited to, networking, distributed and mobile computing, programming languages, databases, operating systems, object-oriented computing, bioinformatics, performa modeling and analysis, and theory of computation. Strong candidates in other areas of computer science are encouraged to apply. We especially encourage applications from candidates whose spincarons non candidates whose research is interdisciplinary in nature. Salaries for new faculty are highly competi-tive, and substantial resources have been

allocated for startup funding. The College of Science and Technology offers Bachelors, Masters, and Ph.D. degrees in basic and multidisciplinary areas. Temple University, located in Philadelphia, Pennsylvania, is part of the Pennsylvania Commonwealth System of Higher Education and serves more than 27,000 students.

Applicants should submit a curriculum vitae, three representative publications, a statement of research interests, a statement statement of research interests, a statement of reaching philosophy, and should arrange for four letters of reference to be sent directly to the address below. Professor Elliot B. Koffman Chair, Faculty Search Committee Office of the Dean College of Science and Technology.

College of Science and Technology

409 Barton Hall A Temple University

Philadelphia, PA 19122 Temple University is an equal opportu-nity/affirmative action employer and specifically invites and encourages applications from women and minorities. Additional information about the university and the department is available at http://www.temple.edu and http:// www.cis.temple.edu.

Tufts University Department of Electrical Engineering and

Computer Science

Computer Science The Department of Electrical Engineer-ing and Computer Science at Tufts University seeks to hire a tenure-track faculty member in Computer Science at the Assistant or Associate Professor level. The successful candidate will be responsible for excellence in teaching, research, and advising in both the undergraduate and graduate programs of the department. W also expect the successful candidate to develop funded research programs in his/ We develop funded research programs in his her area of interest, supervise graduate research, and publish in refereed journals. A doctorate in Computer Science or a closely related field is required. Preference will be given to candidates who can teach programming-oriented courses and whose research comparing the origing depart. research connects to on-going departresearch connects to on-going depart-mental research in artificial intelligence, data compression, discrete math/theory, distributed computing, human-computer interaction, machine learning, multime-dia, CAD for integrated circuits, computational geometry, and/or visual-ization and exploration of large data sets. Tafe. Ide inserties is a Desarch Labora

Tufts University is a Research I class institution that happens to be the smallest such institution, giving it unique

Professional Opportunities



Applications are invited for several tenure-track positions at the Assistant Professor level. A Ph.D. in Computing Science or equivalent is required, with a strong commitment to excellence in research and teaching. While outstanding candidates in all areas and at all levels will be considered, the ideal candidate will have demonstrated research expertise in a systems area, such as software engineering, graphics, multimedia systems, database systems, distributed systems or networking.

Responsibilities include research as well as teaching at the graduate and undergraduate levels. Excellent support will be provided to the successful applicants for establishing their research programs. As well, researchers in advanced systems will be eligible for fellowships in the B.C. Advanced Systems Institute

The School of Computing Science has 36 faculty members, and offers an expanding graduate program with 120 M.Sc. and Ph.D. students. The School has state-of-the art computer equipment with excellent network support. There are wellequipped research laboratories in areas including algorithms. artificial intelligence, graphics and multimedia, and database systems. As well, the School has strong links with the university's Centre for Systems Science, the B.C. Advanced Systems Institute, and local industry.

SIMON FRASER UNIVERSITY

Simon Fraser University serves about 18,000 students. The university has been ranked first in the comprehensive category for the third year running in the national ranking of Canadian universities carried out by Maclean's Magazine. The university is situated on top of Burnaby Mountain just east of Vancouver and commands magnificent views of Burrard Inlet, the North Shore Mountains, the Fraser River, and Vancouver harbour. The Lower Mainland area of British Columbia is unique in Canada for its mild climate and varied recreational opportunities

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Simon Fraser University is committed to the principle of equity in employment and offers equal employment opportunities to qualified applicants. Applications will be accepted until the position is filled. For updated information see www.cs.sfu.ca

To apply, send a curriculum vitae, evidence of research productivity (including selected reprints), and the names, addresses and phone numbers of three referees to:

Dr. James P. Delgrande, Director

School of Computing Science

Simon Fraser University

Burnaby, British Columbia, Canada, V5A 1S6 email: cs-chair@cs.sfu.ca

character. With about 5,000 under-graduates, 3,000 graduate students, and a world-wide reputation for its undergradu-ate education and several of its graduate programs, Tufts offers a unique opportu-nity for academic professionals interested in combining world-class research with close connections to outstanding undergraduate, Masters, and Ph.D. students. Located just a few miles or a short 'T' ride from Boston and Cam-bridge, the Department offers B.S., M.S. and Ph.D. programs in Electrical Engineering, in Computer Engineering, Engineering, in Computer Engineering, and in Computer Science. For more information on the Department or other Tufts positions available, please visit

Tufts positions available, please visit <http://www.ees.tufts.edu>. Applications including a cover letter, a resume, a teaching statement, a research plan, and three letters of recommendation should be sent to Prof. Diane Souvaine, Chair of the Computer Science Search, Department of Electrical Engineering and Computer Science, Tufts University, 161 College Avenue, Medford, Massachusetts, 02155. Review of applications begins February 7, 2000. Medford, Massachusetts, 02155. Review of applications begins February 7, 2000. An Affirmative Action/Equal Opportu-nity employer, Tufts University is committed to excellence in teaching and scholarship, and to building a faculty that reflects the diversity of both its students and the world. Members of underrepresented arouns foenable of color and the worka. Members of underrepresented groups (people of color, persons with disabilities, Vietnam veterans, and women) are strongly encouraged to apply.

Tuskegee University College of Engineering, Architecture,

and Physical Sciences The College of Engineering, Architec-ture, and Physical Sciences at Tuskegee University seeks applicants for the following tenure-track and non-tenure-track faculty positions.

 Department Chair: Electrical Engineering; Aerospace Science Engineer-

· Faculty: Computer Science; Aerospace, Electrical, Mechanical, and Chemical Engineering; Physics Candidates must have an earned Ph.D.

in the relevant discipline or closely related area as well as a proven track record of teaching, research, and service, commensu-rate with the rank of Assistant or Associate Professor and commitment to the professor and commitment of minorities. Additionally, candidates for Chair must

demonstrate strong leadership skills, drive, vision, and a commitment to build and sustain a stable and progressive department.

ment. The College also seeks applicants for the position of Computer Systems Engineer, beginning Fall 2000. Candidates must have an earned BS degree in Computer Science, Computer Engineering, or Electrical Engineering: a minimum of the second seco one year hands-on experience in UNIX system administration and PC network management using Windows NT and/or Novell; and familiarity with creating and maintaining accounts, installing and maintaining application software, network design and installation, licenses, and maintenance agreements.

Send application, resume, and names and telephone numbers of three references to: Dr. Legand L. Burge, Jr., Dean, College of Engineering, Architecture, and Physical Sciences, Tuskegee University, Tuskegee, Alabama 36088; Tel. 334-727-8356.

University of Alabama Department of Computer Science Position Announcement

The University of Alabama Department of Computer Science invites applications for two positions to begin August 16, 2000. One position is a senior position preferably at the Full Professor level, although we will consider candidates at the Associate Professor level. Applicants are sought in all areas of software engineering. database systems, software systems, and networking. Candidates are expected to have an established record of research,

scholarly activity, and funding, and to provide a leadership role in the ongoing

expansion of our graduate program. The second position is a tenure-track position at the Assistant Professor level in any area of computer science. Applicants must have an earned Ph.D. in Computer Science, with an evidence of research potential, commitment to teaching, and willingness to participate in the Department's graduate and undergraduate

The Department of Computer Science has twenty faculty (eleven tenured/tenure-track), over 300 undergraduates in a CSAB-accredited BS degree, and forty MS and Ph.D. students. We expect to grow to sixteen tenured/tenure-track faculty within three years. Areas of research emphasis include algorithms, artificial intelligence,

actude agoritums, artificial interingence, database systems, human-computer interface, networking, software engineering, and software systems. Outstanding applicants should send a curriculum vitae and the names and addresses of at least three references to: Dr. Allen Parrish, Chair Computer Science Search Committee

Dr. Allen Parrish, Chair Computer Science Search Committee Department of Computer Science Box 870290 The University of Alabama Tuscaloosa, AL 35487-0290 For additional information, please visit http://cs.ua.edu, or contact Allen Parrish at parrish@re.ua.edu parrish@cs.ua.edu.

partish@cs.ua.edu. Review of applications will begin January 15, 2000 and will continue until the positions are filled. The University of Alabama is an Equal Opportunity/ Affirmative Action employer. Women and minorities are particularly encour-ored to combu aged to apply.

The University of Alabama at Birmingham Department of Computer and Information Sciences

The Computer and Information Sciences Department of the University of Alabama at Birmingham (UAB) invites

applications for a tenure-track faculty position at the assistant or associate professor level. Applicants should have a Ph. D. in computer science or a closely Ph. D. in computer science or a closely related field, a strong interest in and commitment to teaching, research and external research funding. A goal of the Department is to develop a research team which builds on existing strengths in computer networking, distributed computing and object-oriented softw technologies. Applicants should have software research interests in one or more of these areas and a demonstrated record of accomplishments. Included within the University are the

Graduate School and Schools of Medicine, Dentistry, Arts and Humanities, Social and Behavioral Sciences, Natural Sciences and Mathematics, Business, Education, Engineering, Public and Allied Health, Optometry, and Nursing. The Department of Computer and Informa-tion Sciences is located in the School of Natural Science and Mathematics and offers B.S., M.S., and Ph. D. degrees. In addition to the areas listed abov

above, departmental research areas include artificial intelligence, biomedical comput-ing, data mining, and graphics and visualization. Over 16,000 students pursuing their education on UAB's 270-acre campus, located between downtow Birmingham and Red Mountain. UAB ranks among the top public institutions in the country in federal research and development support, attracting more than \$100-million in external funds and is ranked as a Carnegie I Research University. UAB's Office for the Advancement of Developing Industries (OADI) provides an environment for the initiation of corporate/academic interchange. Birmingham is a major metropolitan area of almost 900,000 is a southeastern center of finance communications, and medicine. The area has a pleasant climate all year. A wide variety of cultural, natural, and sports attractions are available in the immediate vicinity

For more information on the department, university and city, see our web page at www.cis.uab.edu.

Qualified applicants should send a curriculum vita and the names and addresses three references to Faculty addresses three references to Faculty Recruiting, Department of Computer and Information Sciences, The University of Alabama at Birmingham, 1300 University Blvd., Birmingham, AL 35294-1170. Applications will be considered as they are received until the position is filled. The University of Alabama er

filled. The University of Alabama at Birmingham is an equal opportunity/ affirmative action employer.

University of Alabama in Huntsville Department of Electrical and Computer Engineering

The Department of Electrical and Computer Engineering of the University of Alabama in Huntsville invites applications for two tenure-track positions at the Assistant Professor level in areas of computer engineering, communications/signal processing. Applicants should have a Ph.D. in electrical or computer engineering and demonstrated potential for excellence in both instruction and research. Please visit us at http://www.eb.uah.edu/ece/. Resume with the names, addresses, and telephone Resumes numbers of three references should be mailed to Reza Adhami, Professor and Chair, Electrical and Computer Engineering Department, The University of Alabama in

Huntsville, Huntsville, Alabama 35899. Reviewing of applications will begin by December, 1999 and will continue until both positions are filled. UAH is an Equal Opportunity/Affirmative Action Employer

University of California, Davis Department of Computer Science Faculty Positions

The Department of Computer Science, at the University of California, Davis, faculty positions. The department is seeking candidates at all levels. At the senior level, we invite applications from candidates with truly distinguished records and demonstrated excellence in research, teaching, and leadership; at the junior level, we invite applications from candidates with a commitment to excellence in teaching and demonstrated strong potential for excellence in research. The department welcomes applications from strong candidates in all areas, although it has a particular interest areas, although it has a particular interest in the areas of Networks, Computer Systems (including Security), and Information Systems. The department expects more positions in the future in areas such as Computational Biology, and strong candidates are requested to consult our website for the latest information information

The CS Department currently has 23 The CS Department currently has a faculty, covering all major areas of computer science. It is experiencing a period of strong growth in research and instruction and expects to continue this trend. The Davis campus is the third trend. Inc Davis campus is the third largest in the University of California system. UC Davis ranks among the nation's top 20 universities in research funding and has been rated as one of the top five "up and coming" universities in the country. Davis is a pleasant, family-oriented community in a collectown setting with

Davis is a pleasant, family-oriented community in a college-town setting with excellent public schools and a mild climate. Davis is ideally located for many recreational, cultural, and professional activities. It is just 15 miles from California's capital city of Sacramento and is within easy driving distance of the Sierra Nevada Mountains, Berkeley, San Evenciero, Silicon Valley, Many Valley Francisco, Silicon Valley, Napa Valley wine country, and the Pacific Coastal areas

These positions require a Ph.D. or equivalent. The positions are open until filled, but for full consideration, appli-

cants should apply by January 21, 2000. UC Davis is responsive to the concerns of dual career couples and offers a Partners Opportunity Program. UC Davis is an affirmative action/equal opportunity employer. Please consult our web page (http:// www.cs.ucdavis.edu/) for additional

information and application procedures or send e-mail to: apply@cs.ucdavis.edu.

Professional Opportunities

University of California, Irvine Department of Information and Computer

Science Open Faculty Positions

The Department of Information and Computer Science (ICS) has several tenured or tenure-track positions open in

the following areas of research emphases: A. Computer Graphics B. Systems Software: Databases, Operating Systems, Compilers, and Networks

Computer-supported cooperative work: social impacts of computing, information studies, and human-

computer interactions. D. Other areas of computer science such as software and software engineering, such as sortware and sortware engineering, computer security, cryptography, bioinformatics or medical informatics. Available positions are for an Associate or Assistant Professor in Computer Graphics and Assistant Professor positions in other areas, but exceptional candidates from all ranks will be considered. In all cases we are be considered. In all cases, we are looking for applicants with a Ph.D. degree in Computer Science or a related field, and strong research credentials as evidenced by scholarly publications. Applicants for senior positions must also demonstrate a proven track record in funded research activities.

funded research activities. The ICS Department is organized as an independent campus unit reporting to the Executive Vice Chancellor. It runs the second most popular major at UCI and has designed an undergraduate honors program that attracts the campus' most qualified students. External funding most qualified students. External fundin from government and industrial sponsor exceeded \$10 million last year. The Department currently has thirty-eight fulltime faculty and 150 Ph.D. students involved in various research areas including computer systems, artificial intelligence networks and distributed intelligence, networks and distributed systems, databases, multimedia systems, computer systems design, software/ software engineering, human-computer interaction, and computer-supported cooperative work. ICS faculty are involved in the forefront of research in the emerging areas of the computer science discipline such as multimedia/ embedded computing, knowledge-discovery in databases, bioinformatics and the role of information in computer science and society. The faculty has effective interdisciplinary ties to colleagues in digital arts, biology, cognitive science, engineering, management, medicine, and the social sciences.

Although UCI is a young university, it has attained remarkable stature in the past three decades. Two Nobel prizes were recently awarded to UCI faculty. UCI is located three miles from the Pacific Ocean near Newport Beach, approximately forty miles south of Los Angeles. The climate is ideal year-round avoiding extreme ideal year-round avoiding extreme temperatures in winters and summers. Irvine is consistently ranked among the safest cities in the U.S. and has an exceptional public school system. The campus is surrounded by high-technology companies that participate in an active affiliates program. affiliates program.

attiliates program. Both the campus and the area offer exciting professional and cultural opportu-nities. Mortgage and housing assistance are available including newly built, for-sale housing located on campus and within short walking distance from the department. Applicants should send a cover letter

indicating which of the areas above [A-D] best fits their research, a curriculum vitae, three sample papers and contact information for three or four references to: recruit@ics.uci.edu (PDF, postscript, Word, or ASCII).

Applicants are requested to ask their references to send letters of evaluation to recruit@ics.uci.edu by January 15, 2000. Those that insist upon sending hard copy

may send it to: ICS Faculty Position [A-D] c/o Lori Miskell Department of Information and Computer Science University of California, Irvine Irvine, CA 92697-3425

Application screening will begin immediately upon receipt of curriculum vitae. Maximum consideration will be given to applications received by January 7, 2000

The University of California is an Equal Opportunity Employer, committed to excellence through diversity.

University of California, Los Angeles

Department of Computer Science The Department of Computer Science at the University of California, Los Angeles, invites applications for tenure-track positions at all levels. Applications are especially welcome from distinguished candidates at more senior levels.

Quality is our key criterion for applicant selection. Applicants should have a strong commitment to both research and teaching and an outstanding record of research for their level. We seek applicants in any mainstream area of Computer Science, but we particularly welcome those with a strength in operating systems, compilers, graphics, database systems, embedded systems, networking and security.

Interested applicants should send a letter of applicatios, a resume, and the names of four references to: Professor Richard R. Muntz, Chair, UCLA Computer Science Department, 4732 Boelter Hall, Los Angeles, CA 90095-1596.

University of California. Santa Barbara Faculty Positions: Department of Computer Science

The University of California at Santa Barbara invites applications for faculty positions in Computer Science. While the department emphasizes building strengths in experimental computer science, amplignet: in all genes of computer science. applicants in all areas of computer science

e welcome.

The Department of Computer Science currently has 20 full-time faculty and about 120 graduate students (including 60 Ph.D. students) involved in various research areas including digital libraries and databases, parallel and distributed systems, programming languages, networking and security, theory and algorithms, and scientific computing. External funding from federal ncies and industrial sponsors exceeded

\$4 million last year. The Department of Computer Science is part of an expanding College of Engineering which encompasses over 100 Ingineering when encompasses over two faculty in various engineering disciplines UCSB is a major research institution, elected member of the Association of American Universities, as well as an integral part of the nine-campus University of California system. Graduate degrees in

of California system. Graduate degrees in Computer Science are offered at the M.S. and Ph.D. levels. Applicants should hold a doctoral degree in Computer Science or a related field; appointments are scheduled to begin in 2000-2001. Primary consideration will be given to candidates who apply by January 15, 2020 (or earlier), however the position yull femain core until filled Sand position will remain open until filled. Send resume and names of at least four referees to: Recruitment Committee, Department of Computer Science, University of California, Santa Barbara, CA 93106-5110. To apply by electronic mail, send the application in an ASCII or postscript file to: recruitment@cs.ucsb.edu. Additional information about the Computer Science Department may be found at http:// www.cs.ucsb.edu. An EO/AA employer.

University of Central Arkansas Computer Science Department

The Department of Computer Science is seeking faculty candidates for two positions at the assistant or associate level commencing August 2000. Rank commen-surate with experience. Ph.D. in computer science or related field required. The position is either a tenure-track or three year-renewable appointment by mutual agreement. Tenure-track at competitive salary, three-year-renewable at the national average by rank in computer science. The Department currently offers a BS in Computer Science and is actively develop-ing an MS Degree in Applied Computing, a BA in Computer Science, and a 2-year Associate Degree in Computer Science. We are committed to excellence in teaching and research. Current active research areas include robotics, medical imaging, distributed computing, and computer science education. Applicants with interests in software engineering, networking, and databases will be given

preference but all areas of computer science, especially those that complement and strengthen current research areas, will be considered. The Computer Science Department was

established in 1996 and currently has over 170 majors, it enjoys strong support from the administration and is growing rapidly. The University of Central Arkansas has The University of Central Arkansas has made "computer science and computing" one of its highest priorities. The CS Department will move into a new \$8.0 million building, designated for technology related programs in 2001. UCA has approximately 9,000 students and is located in Conway, a rapidly growing town of 40,000, about thirty miles from Little Rock and a few bours drive from

Little Rock and a few hours drive from Dallas (6+) and Memphis (2+). Candidates should send a letter of application, resume' and the names and addresses of three and the names and addresses of three references to: Faculty Search Committee, Computer Science Department, UCA, Conway, AR 72035. Electronic submission preferred (search@cs.uca.edu). Review of applications will begin Jan. 15, 2000 and continue until the positions are filled. UCA is an equal opportunity employer.

employer.

University of Colorado at Denver Department of Computer Science and Engineering Department Chair

The University of Colorado at Denver invites applications and nominations of notes applications and nonlineatons of outstanding individuals for the position of Chair of the Computer Science and Engineering Department. The position requires a Ph.D. in Computer Engineering, Computer Science or a closely related field,

requires a Ph.D. in Computer Engineering, Computer Science or a closely related field, an excellent record in teaching and research, a demonstrated record of external funding, and credentials appropriate for appointment as a tenured full professor. A strong candidate should have excellent leadership skills, an ability to work closely with industry and a commitment to teaching excellence. The position is available beginning July 1, 2000. The Computer Science and Engineering Department has ten full time faculty and approximately 13 part-time honoraria, 400 undergraduate students and 200 graduate students. The department offers a B.S. in Computer Science, a Master's of Engineering with Computer Science emphasis, and participates in a Ph.D. in Applied Mathematics with a Computer Science concentration through the Department of Mathematics. Department of Mathematics.

CU-Denver is the urban, non-residential campus of the four-campus University of Colorado system and the only public university in the Denver metropolitan area. Located in downtown Denver, CU-Denver serves approximately 12,000 students, whose average age is 30 and over students, whose average age is 30 and over 85% of whom work. Over 44% are graduate students. CU-Denver offers 36 undergraduate degrees and 43 master's degrees through the Colleges of Architec-ture and Planning, Arts and Media, Business, Engineering, and Liberal Arts and Sciences, the School of Education and the Graduarg School of Education and the Graduate School of Public Affairs, and the Graduate School of Public Atfairs, and the Ph.D. in applied mathematics, civil engineering, health and behavioral sciences, educational leadership, and public affairs. Classes are offered during weekday and evening hours, on weekends, at off-campus sites, and on-line. CU-Denver values teaching and teacethe awalls and here a teaching and research equally and has a statutorily established applied research mission. CU-Denver is expected to serve the complex higher education needs of its city, the region that depends on the city and, by extension, cities worldwide. For more information about the

department contact http://

carbon.cudenver.edu/public/compsci/ The University of Colorado at Denver an equal opportunity employer comr ted to excellence through inclusiveness

The Colorado Open Records Act (C.R.S. 24-72-204) requires a written (C.R.S. 24-72-204) requires a written request for confidentiality at the time of application. Applications without such a request may be open records and may be disclosed. Materials submitted by electronic mail are open records. Applicants obuil send their vita and the names of six references to: Dr. Richard Lundgren, Choir of the Computer Science and

Chair of the Computer Science and Engineering Search Committee

University of Colorado at Denver Department of Engineering and Applied Science Campus Box 104 P.O. Box 173364 Denver, CO 80217-3364 Lundgren@carbon.cudenver.edu Review of applications will begin January 10, 2000. Applications will continue to be accepted until the position is filled

University of Colorado at Boulder Department of Computer Science

Department of Computer Science Tenure-track Positions The Department of Computer Science of the University of Colorado at Boulder is seeking applications for a number of tenure-track faculty positions. While we expect most of the appointments to be at the Assistant Professor level, we will consider strong candidates at all levels.

The Department has twenty-five faculty, about 175 graduate students, and 485 undergraduates. It has strong research programs in artificial intelligence, human computer interaction, numerical and and theoretical computer science. The Department is the recipient of three consecutive five-year infrastructure grants from the NSF to support its computing infrastructure and collaborative research among its faculty. Our location in Boulder among its ractury. Our location in boulder combines a pleasant college town ambi-ence, easy access to the great outdoors, and participation in a vibrant, rapidly-growing high tech industry community. More information about the Depart-ment, including current information on areas of special priority in our search can

areas of special priority in our search, can be found at http://www.cs.colorado.edu.

Review of applications will begin immediately, and continue as long as positions are open. We expect to have positions in future years as well as for appointments beginning in academic year 2000-2001, and we welcome inquiries

about these future opportunities. We would also be glad to consider the possibility of making multiple appoint-ments to enable research collaborators to

join our faculty together. Applicants should send a current curriculum vitae, the names of four references, and one-page statements of

research and teaching interests to: Professor Clayton Lewis, Search Committee Chair, Department of Computer Science, Campus Box 430, Univer-sity of Colorado, Boulder, CO 80309-

Inquiries can be addressed to Professor Lewis

wis at search@cs.colorado.edu. The University of Colorado at Boulder committed to diversity and equality in education and employment.

University of Delaware Department of Computer and Information

Sciences Applications are invited for two tenure-track Assistant Professor positions for Fall 2000. Outstanding senior level candidates will also be considered. It is anticipated that one or more visiting faculty positions will be available as well. Of primary interest are candidates whose research is in an area of experimental computer science such as systems, networking, software engineering, multimedia, or web-based technologies; although candidates in related areas will be considered. Applicants should hold a Ph.D. or its equivalent and should be committed to excellence in research and

committed to excellence in research and teaching. The normal teaching assignment is three courses per year. The department has sixteen tenure-track, two visiting, and three research faculty members, with a substantial portion of our ninety graduate students pursuing the Ph.D. We have significant external funding, including a \$1.5M grant for an Army Research Lab in Telecommunications and Information Distribution, a recent \$900K NSF CISE Research Infrastructure Grant for parallel and distributed comput-Grant for parallel and distributed comput ing, and NSF CAREER awards. The University of Delaware is centrally located between Philadelphia and Baltimore, with major government and industrial labs nearby. More information is available at http://www.cis.udel.edu

To apply, please mail curriculum vitae to: Dr. B. David Saunders, Chair of the

Professional Opportunities

Faculty Search Committee, Department of Computer and Information Sci University of Delaware, Newark, DE 19716. In addition, candidates should have three to five confidential letters of reference sent directly to the above address or by e-mail to csfacsch@cis.udel.edu. Applications will be accepted until the positions are filled; those received by February 1, 2000 are assured full consider-ation Qualified minority group members and women are encouraged to apply. The University of Delaware is an equal

University of Denver Department of Mathematics and Computer Science

opportunity employer.

We invite applications for one or more tenure-track faculty positions to begin fall 2000. The minimum requirements are, by September 2000, a Ph.D. in CS or related areas and demonstrated ability in research and teaching. The department is particu-larly interested in candidates who can teach and direct research in systems areas including OS, data bases, web technology, parallel and distributed systems, graphics, multimedia, networks, mobile computing, telecommunications, and/or software engineering. Our current faculty have research

programs in algorithms, computational geometry, database systems, graphics, multimedia servers, network security, optical networks, parallel computer architecture, web technology, parallel/ distributed processing, and performance modeling. We offer BS and MS degrees in modeling. We offer BS and MS degrees in each of Computer Science and Mathemat-ics, and a joint Ph.D. in Mathematics and Computer Science. For more information contact our web site at http:// www.cs.du.edu.

The University of Denver is a medium-size (8,000 students) private university with a strong emphasis on teaching and research. Class sizes are small, the teaching load is moderate and the salary is competi-tive. The University is located in an attractive residential area 5 miles from downtown Denver. Denver, with its metro area population of 2.3 million, is consis-tently ranked as one of the country's most pleasant places to live. Denver offers a wide spectrum of quality cultural arts and fine dining. In addition, many of the country's best ski areas, hiking/biking trails,

and the 14,000 foot packs of the Colorado Rockies are only one or two hours away. The University of Denver is committed to enhancing the diversity of its faculty and staff and encourages applications particu-larly from women, minorities and the disabled.

Application screening will begin immediately and continue until the position is filled. Applicants should submit a curriculum vitae, a statement of teaching and research interests, and have at least 3 reference letters sent to: Chair, Computer Science Search

Committee Mathematics and Computer Science Department University of Denver 2360 S. Gavlord Stree Denver, CO 80208-0189

University of Georgia

Department of Computer Science The Department of Computer Science The Department of Computer Science of The University of Georgia invites applications for four tenure-track positions in computer science to begin Spring or Fall of 2000. At least one of the appointments is expected to be at the level of Associate or Full Professor. Two of the positions are part of a Georgia strategic initiative to achieve ore-eminence in the design/

achieve pre-eminence in the design/ Applicants for these two positions should have demonstrated expertise in distributed have demonstrated expertise in distributed information systems, high performance networking, software engineering, optical networks, high speed access devices, modeling and simulation of opto-electronic devices and systems, modeling and simulation of mixed-signal ICs and boards, or methodology for embedded software development. For the other two positions, the department intends to hire persons whose research complements existing departmental strengths. We are especially interested in networking, graphics, compilers and programming languages, operating systems, and software engineer-ing. However, outstanding applicants in all areas are encouraged to apply. Successful applicants must be committed to excel-lence in both research and teaching. The Department of Computer Science

The Department of Computer Science is a growing and congenital department of eighteen faculty with wide areas of research interests. The department has 500 undergraduate and 80 graduate students, and offers the BS, MS, and Ph.D. Degrees in Computer Science. The teaching load allows for substantial concentration on research. Evenuts interpret with correct research. Faculty interacts with several centers for computational science, including centers for Genomics and Computational Biology, Molecular Structure and Design, Computational Quantum Chemistry, and Simulational

Physics. The University of Georgia, founded in 1785, is the oldest land-grant university in the nation and the largest university in the state of Georgia, with a student body of 31,000. Located in Athens, a charming and historic university town of 100,000, approximately sixty-five miles from approximately sites from miles from metropolitan Atlanta, with mild winters and warm summers, the University boasts a major Performing Arts Center and numerous other cultural amenities.

Applicants should submit a curriculum vitae, statement of research interests, and arrange to have four reference letters sent to:

to: Faculty Search Committee Department of Computer Science The University of Georgia Athens, GA 30602-7404 Applicants should indicate the rank for which they wish to be considered. To be assured full consideration, applications ebodd be received by Iupurg 15, 2000. abould be received by January 15, 2000. The University of Georgia is an Equal Opportunity/Affirmative Action employer, and especially encourages applications from women and minorities.

University of Houston

Department of Computer Science The Department of Computer Science at the University of Houston (UH) seeks applicants for at least three tenure-track faculty at any rank. Successful candidates are expected to participate in teaching at are expected to participate in teaching at all levels, carry out independent research, and strengthen graduate programs in communications/networks, computational science, computer graphics/vision, databases, and scientific/engineering dat visualization. Other areas may be considered as well. The Department is experiencine a period of trong growth and experiencing a period of strong growth and expects this trend to continue. Faculty is sought to lead in maintaining an innovative curriculum and to continue or initiate

collaborative research programs. Applicants should have a Ph.D. in computer science or a related field and have a strong interest in both teaching and leading-edge research. Successful cardi-dates may affiliate with the Texas Center for Computational and Information Sciences (TCCIS), the Texas Learning and Computation Center (TLC2), and/or the Virtual Environments Research Institute (VERI). TCCIS, TLC2, VERI, and the department have a substantial infrastruc-ture to support both teaching and research activities (see www.cs.uh.edu, activities (see www.cs.uh.edu, www.tccis.uh.edu, and www.vetl.uh.edu). UH, together with Rice University, Baylor College of Medicine, and Texas A&M College of Medicine, and Texas A&M University, operates a regional OC-12 network connected to the vBNS. UH is also a charter Internet2 member. The department is affiliated with the Center for Research in Parallel Computation (Rice) and both NSF Partnerships for Advanced Computing Infrastructure. Significant opportunities for collaborative research exist within the university and with the exist within the university and with the Texas Medical Center, the NASA/Johnson Space Center, and the region's oil/gas industry.

UH is an equal opportunity/affirmative action employer. Minorities, women, veterans, and those with disabilities are

Applications, including a resume, a list of publications including, and the names of at least three references (five for senior

at least three references (five for se sitions) should be sent to: Faculty Search Committee Department of Computer Science Mail Stop CSC-3475 Houston, TX 77204-3475 USA

713-743-3343 (voice) 713-743-3335 (fax) iohnson@cs.uh.edu (email) Review of applications will begin immediately and will continue until the positions are filled.

University of Houston Department of Electrical and Computer Engineering

The Department of Electrical and The Department of Electrical and Computer Engineering at the University of Houston (UH) invites applications for tenure track faculty positions in all areas of computer engineering at the level of Assistant Professor beginning Aug. 15, 2000. Areas of interest include but are not limited to VLSI, EDA, and hardware and software workerns. The nositions require a software systems. The positions require a Ph.D. in Electrical or Computer Engineer-ing, or Computer Science. Responsibilities include graduate and undergraduate teaching, supervising MS and Ph.D. students, and developing an externally funded research program. Successful candidates can expect a

Successful candidates can expect a highly competitive start-up package and numerous opportunities for collaboration. The latter include working with the Texas Center for Computational and Information Sciences (with a 64 node SP), the Virtual Environment Technology Lab (with a 3D own) and undersc Harder institutions cave), and various Houston institutions such as Compaq, NASA, and the Texas Medical Center. In addition, UH, together with Rice, Baylor College of Medicine, and with Rice, Baylor College of Medicine, and Texas A&M, operates a regional OC-12 network connected to the vBNS through the Texas GigaPoP. UH is also an Internet? Charter Member. Candidates should end -

Candidates should send a c.v. with the least three references to: Professor Fritz Claydon, Chair

Department of Electrical and Computer Engineering

University of Houston Houston, Texas 77204-4793 The University of Houston is an equal opportunity/affirmative action employer. Minorities, women, veterans, and persons with disabilities are encouraged to apply. To ensure full consideration, applica-tions should be received Feb.15, 2000.

University of Idaho

Distinguished Professor of Information Security and Assurance The University of Idaho invites

nominations and applications from outstanding candidates with strong academic credentials to join a well established resident faculty with growing undergraduate, graduate and research programs. The computer science department is seeking strong individuals at the full professor level to be named a distin-guished professor of information security and assurance. Qualifications include an and assurance. Quantizations include an earned Ph.D. in computer science or a closely related field, teaching experience, documented research experience and scholarly activity. Successful candidates are expected to pursue an active research program, to teach and to supervise graduate students. Position subject to

graduate students. Fostiton surject to funding approval. The Department of Computer Science has both a strong research and education program and has established itself as an important research center within the insti-tution. The department's major research areas include information assurance, particularly information asserutiv, and the particularly information security, and the university has been designated by NSA as one of only seven national Centers of Academic Excellence in Information Assurance Education (http://www.nsa.gov/ isso/)

Letters of nomination and applications Letters of nomination and applications should be sent either in hardcopy or electronic form to: search@csuidaho.edu, Search Committee, Department of Computer Science, University of Idaho, Moscow, ID 83844-1010. Applicants should include a letter of interest address-ing the qualifications identified above, a resume and the names addresses and ema resume, and the names, addresses and email addresses of at least three reference Review of applications will begin January 10th and the position will remain open ur filled. To enrich education through diversity, the University of Idaho is an equal opportunity employer. For more information see http://www.cs.uidaho.edu/ search/.

Professional Opportunities

Assistant/Associate Professor **Computer Information Systems/Computer Science**

The Computer Science Department at SUNY Institute of Technology invites applications for two tenure-track teaching positions- Assistant or Associate Professor of Computer Information Systems and Assistant Professor of Computer Science.

Intormation systems and Assistant Protessor Computer Science. Duties required for both positions include teaching, research, leadership in course/program development and interacting with community business and industry. The Information Systems position will, in addition, include responsibility for developing and coordinating the department's information systems program. Ph.D. in computer science or closely related discipline required. ABD candidates, who expect to complete a Ph.D. within four years, will also be considered for the Computer Systems position. Salary and benefits are competitive, will also be considered for the Computer Systems position. Please send letter of application stating which of the positions you are applying for, along with resume and names of three references to:

Dr. Rosemary Mullick, Interim Dean Information Systems and Engineering Technology SUNY Institute of Technology at Utica/Rome Drawer 9107, P.O. Box 3050, Utica, NY 13504-3050

Review of applications will begin on January 15, 2000 and continue until the positions are filled For more information, visit our homepage at http://www.sunyit.edu



University of Idaho Faculty Positions in Information Security and

Assuran

The University of Idaho invite nominations and applications from outstanding candidates with strong outstanding candidates with strong academic credentials at the assistant or associate level to join a well established resident faculty with growing undergradu-ate, graduate and research programs. Qualifications include an earned Ph.D. in computer science or a closely related field, teaching experience or potential, docu-mented research experience and scholarly activity. We are specifically looking for candidates with backgrounds in the area of Information Security and Assurance. Successful candidates are expected to Successful candidates are expected to pursue an active research program, to and to supervise graduate students. Positions subject to funding approval. teach

The Department of Computer Science has both a strong research and education program and has established itself as an program and has established itself as an important research center within the institution. The department's major research areas include information assurance, particularly information security, and the university has been designated by NSA as one of only seven national Centers of Academic Excellence in Information Assurance Education (http://www.nsa.ov/ Assurance Education (http://www.nsa.gov/ isso/)

Letters of nomination and applications should be sent either in hardcopy or electronic form to: search@cs.uidaho.edu Search Committee, Department of Computer Science, University of Idaho, Moscow, ID 83844-1010. Applicants should include a letter of interest address ing the qualifications identified above, a resume, and the names, addresses and email addresses of at least three references. addresses of at least three references. Review of applications will begin January 10^{h} and the position will remain open until filled. To enrich education through diversity, the University of Idaho is an equal opportunity employer. For more information see http://www.cs.uidaho.edu/ search/.

University of Kentucky Department of Computer Science

Gartner Group Chair in Networking The University of Kentucky Computer

Science Department invites applications for Science Department invites applications for the Gartner Group Chair in Networking. The successful candidate will have made significant scholarly contributions in an area or areas related to computer networks, and posses a research record compared interon-rate with the rank of Full Professor in the department. The holder of the Gartner Group chair is expected to play a leader-ship role in the University's Center for Advanced Networking, to conduct innovative research, to pursue external funding, and to participate in the department's undergraduate and graduate instructional programs.

instructional programs. The Department has a vibrant network research program supported by funding from DARPA, NSF, and several prominent communication industrise. Recent equipment and infrastructure grants from the National Science Foundation support state-of-the-art networking and distributed computing systems research laboratories

both in the CS Department and in the Center for Advanced Networking. A new building, scheduled for completion in late Spring 2000, will serve as the home for the Center for Advanced Networking and provide labs and office space for faculty, students, and visiting researchers from our corporate sponsors. The Department of Computer Science

The Department of Computer Science is part of the College of Engineering at the University of Kentucky and offers BS, MS, and Ph.D. degrees, with approximately 500 undergraduate and 100 graduate students currently enrolled. The department is enjoying a period of dynamic growth, and has been selected by the University and State of Kentucky as a target for substantial investment of resources that will enhance the University standing as a research university over the next two decades. Networking has been identified as a specific focus area for this funding.

Networking has been identified as a specific focus area for this funding. CS faculty are actively involved in research related to networking, distributed operating systems, multimedia systems, graphics, computer vision and image processing, cryptography, artificial intelligence, numerical analysis and theory. External grants and contracts support me

External grants and contracts support me of these research efforts. The University of Kentucky is the flagship graduate degree granting institu-tion in Kentucky, strongly committed to the goal of maintaining research and teaching excellence and high national visibility. The Center for Robotics and Monuforturing Systems and the Center for Manufacturing Systems and the Center for Computational Sciences, located on campus, offer excellent opportunities for collaboration.

The University of Kentucky is an equal-

The University of Kentucky is an equa opportunity employer and especially encourages applications from women and minority candidates. The beginning date for this appoint-ment is August 15, 2000. Review of the applicants will begin on January 1, 2000, and the search process will continue until the position is filled. Please send curricu-my time and the promes of at least four. lum vitae and the names of at least four references to: Faculty Search Committee, c/o Ms. Diane Mier, Department of Computer Science, University of Kentucky, Lexington, KY 40506-0046, e@cs.engr.uky.edu, Fax: (606) 323-

For more information, please, visit http://www.cs.engr.uky.edu. An Equal Opportunity/Affirmative Action employer

University of Louisiana at Lafayette (formerly University of Southwestern

The Center for Advanced Computer Studies Faculty Positions

Graduate Fellowships Candidates with a strong research record and an earned doctorate in computer science or computer engineering are invited to apply for two tenure track assistant professor positions starting August 21, 2000.

August 21, 2000. Target areas include computer networks, communications, programming languages, and software engineering. Consideration will also be given to standing candidates in other areas. The

candidate must have demonstrated potential to achieve national visibility through accomplishments in research contract and grant funding, publications, teaching and supervising graduate students. Faculty teach mostly at the graduatelevel and offer a continuing rese arch

seminar. State and university funds are available to support research initiation efforts. External grants/contracts from federal and state agencies support the Center's ongoing research (over \$4.5M in 1998-99). Salaries research (over 54-364 in 1996-99). Salar are competitive along with excellent support directed towards the attainment our faculty's professional goals. The Center's colloquium series brings many world known professionals to our campus orch ware

FELLOWSHIPS: A number of Ph.D. FELLOWSHIPS: A number of Ph.D. fellowships, valued at up to \$18,000 per year including tuition and most fees, are available. They provide support for up to four years of study towards the Ph.D. in computer science or computer engineering. Eligible candidates must be U.S. citizens or must have earned an MS degree from a U.S. or Comadian univarity. Recipients U.S. or Canadian university. Recipients receive preference of low-cost campus

housing. THE CENTER: The Center is primarily THE CENTER: The Center is primarily a graduate research unit, of 19 faculty, with programs leading to MS/Ph.D. degrees in computer science and computer engineer-ing. Approximately 175 graduate students are enrolled in these programs, including over 55 Ph.D. students. The Center has state-of-the-art research and instructional computing foilting, constituting of general computing facilities, consisting of several networks of SUN workstations and other high performance platforms. In addition, the Center has dedicated research laboratories in Computer Vision and Pattern Recognition, Intelligent Robotic Systems, Software Research, VLSI Design, Systellis, Soliware Research, VLSI Design, Automated Reasoning, Multimedia Applications, Wireless Communication, Mobile Information Technologies, Internet Computing, and NASA Regional Applica-tions Center (RAC). Related university programs include the CSAB accredited undergraduate program in Computer Science Dersattment and the ABFT undergraduate program in Computer Science Department, and the ABET accredited undergraduate program in Electrical and Computer Engineering Department. Additional information about the Center may be obtained at http:/ www.ccas.louisiana.edu/. THE UNIVERSITY: The University of Louisiana at Lafewette is the second largest

Louisiana at Lafayette is the second largest university in the state of Louisiana, with enrollment of about 17,000 students. It is a Doctoral II university. Additional information may be obtained at http:// www.louisiana.edu/. The University is located in Lafayette, the capital of Acadiana, which is characterized by its Cajun music and food, and joie de vivre atmosphere. The city, with its population of over 100,000, provides many recre-

of over 100,000, provides many recre-ational and cultural opportunities. Lafayette is located approximately 120 miles west of New Orleans. The search committee will begin reviewing applications on March 1, 2000, and continue until the position is filled. Candidates should send a letter of intent, curriculum vitae, stratement of search an Candidates should send a refer of meen, curriculum vitae, statement of research and teaching interests, and names, addresses and telephone numbers of at least four references. Additional materials, of the candidate's choice, may also be sent to: Dr. Magdy A. Bayoumi, Director The Center for Advanced Computer Studies

Studies

University of Louisiana at Lafayette Lafayette, LA 70504-4330 Tel: 337.482.6284; Fax: 337.482.5791 The University is an Affirmative Action/Equal Opportunity Employer

University of Massachusetts, Amherst

Department of Computer Science Faculty and Research Scientist Positions We invite applications for tenure-track faculty positions at the assistant profes level. Applicants must have a Ph.D. in Computer Science or related area and should show evidence of exceptional should show evidence of exceptional research promise. Our primary interest is in candidates whose research interests are in artificial intelligence and/or in systems areas (e.g., architecture, language implementa-tion, embedded systems, and geographically distributed, heterogeneous, and confoursable comparition) although configurable computing), although candidates in others areas will also be

considered. We particularly welcome candidates who would thrive in a collaborative environment in which research projects often span several research groups. The Department of Computer Science

has thirty-nine tenure and research track faculty and one hundred and sixty Ph.D. students with broad interdisciplinary research interests. The department has just In addition to a new state-of-the-art facility. In addition to the positions advertised here, we expect to have more openings in subsequent years. Please see http:// www.cs.umass.edu for more information Applications should reference search R06811. We also invite applications for Research

Research Associate (search R06810), Postdoctoral Research Associate (search R06812) and Research Fellow (also search R06812) Research Fellow (also search R00612) positions in all areas of Computer Science. Applicants should have a Ph.D. in Computer Science or related area (or an M.S. plus equivalent experience), and should show evidence of exceptional research promise. These positions are grant-funded; re-appointments will be contingent upon continued funding

grant-funded; re-appointments will be contingent upon continued funding. To apply, send a letter with your vitae and names of at least three references to: Search (fill in number from above) c/o Chair of Faculty Recruiting Department of Computer Science University of Massachusetts Amherst, MA 01003-4610 Review of applications begins January 1, 2000, and will continue until available positions are filled. Salary commensurate with education and experience; compre-hensive benefits package. Positions available subject to funding. The Univer-sity of Massachusetts is an Affirmative sity of Massachusetts is an Affirmativ Action/Equal Opportunity employer. Women and members of minority groups are encouraged to apply.

University of Miami College of Arts and Sciences

Computer Science Applications and nominations are invited to fill five tenure-track faculty positions for a proposed new Department of Computer Science beginning in Fall 2000. Minimum qualifications include Ph.D. in Computer Science or related field. Responsibilities will include teaching at the undergraduate and graduate levels, mentoring graduate students, as well as scholarly research and publication. Rank and salary commensurate with qualifica-tions. Successful applicants will have college-level teaching experience, demonstrated research potential approprithe desire to shape the future of computer science at the University of Miami. Send letter of application or nomination along with current curriculum vitae, including the names of three references to: Victor Milenkovic, Chairperson

Computer Science Faculty Search Committee Department of Mathematics and

Computer Science University of Miami P.O. Box 249085 Coral Gables, Florida 33124-4250

Or via e-mail to

Or via e-mail to cssearch@cs.miami.edu; include URL of supporting material. Review of applications will begin immediately and continue until positions are filled. For further information, visit http://www.cs.miami.edu. Women and minorities are encouraged to apply. The University is an Affirmative Action/Equal Opportunity Employer.

University of Missouri-Columbia Department of Computer Engineering & Computer Science

Computer Science Under the IT Mission Enhancement Program, the Department of Computer Engineering & Computer Science of the University of Missouri-Columbia is recruiting seven new faculty positions. These positions will be at the assistant professor level in human-computer interface, natural language processing, medical imaging, spatial reasoning, digital libraries, social computing, and computer

security/cryptography. These positions will be located in the department, but are required to interact with various departments and research projects in applied IT areas. The Depart-

ment of Computer Engineering & Computer Science has established several outstanding federally and industrially funded research programs. The applied IT areas to be recruited are targeted at existing strengths of the department and

ongoing collaboration with other colleges Candidates must have an excellent research record and potential, strong interest in collaboration, and teaching capability of undergraduate and graduate computer science courses. Please send a resume, a statement of research and resume, a statement of research and teaching plan, and three references to: Faculty Search Committee, Department of Computer Engineering & Computer Science, University of Missouri-Columbia, Room 201 EBW, Columbia, MO 65211-2060. Immigration status of non U.S. citizens should be stated. The University of Missouri is an Affirmative Action/Envel Missouri is an Affirmative Action/Equal Opportunity/ ADA Institution

University of North Dakota The John D Odegard School of Aerospace Sciences at UND in Grand Forks ND, is in

search of candidates for: Scientific Computing Research Associate Lead the design and implementation of data acquisition, archive, distribution system for satellite imagery and valueadded datasets. Integrate an Internet based solution with regional, national networks. Design & operate advanced RS/GIS lab. Research trends, standards, tools; imple-

Research trends, standards, tools; imple-ment new technologies; perform sys admin. Qualifications: BS reqd, advanced pref in CS/EE/relevant sc/tech. Pgmg skills/exp in devt & impl. of data acq. & distr. systems. Knowledge of hi-perf. computing & networks, industry trends, available technologies. Sys admin skills for heteroge-neous systems (UNIX, Linux, NT, Windows Wacq) bichkle daterible

Windows, Mac) highly desirable. This is an outstanding opportunity to work with scientific research group in stateof-the-art facilities, which include NOAA ground stations, RS/GIS labs, Cray J90. To apply, see http://www.umac.org, or contact Mr. Gary Ebel, Odegard School of Mr. Gary Ebel, Otdegard School of Aerospace Sciences, Box 9007, Grand Forks, ND 58202-9007, (701) 777-2913, (701) 777-3016 fax, ebel@aero.und.edu. UND is an Equal Opportunity/ Affirmative Action Employer.

University of North Texas

Department of Computer Sciences The Department of Computer Sciences at the University of North Texas invites applications and nominations for the Chair position starting Fall 2000. A Ph.D. in Computer Science or a related field, a strong commitment to excellence in strong commitment to excellence in undergraduate and graduate teaching, well-established research program, successful grant activities as well as leadership skills are required. Candidates for this position must be qualified for an appointment as a Full Professor. Prior administrative experience is preferred. Candidates are construct to durate turns relation expected to develop a long term relation-ship with the area industries and bring visibility to the department both internally and externally

With over 800 regular faculty and over 26,000 students, one-third graduate students, UNT is one of the largest statestudents, UN1 is one of the largest state-supported universities in Texas. Located 40 miles north of the Dallas-Fort Worth metroplex and surrounded by high-tech industries, Denton combines a small town atmosphere with the advantages of a major metropolitan area. Opportunities for consulting and ight research with industries for consulting and joint research with industry are excellent.

The department currently consists of 16 faculty, and offers BS/MS/PhD programs to approximately 800 undergraduate majors and 150 graduate students. Current faculty research interests include algorithms, research interests include algoritomis, architecture, artificial intelligence, data computing, graph theory, neural networks, high-speed networking, scientific comput-ing, simulation, and VLSI Persons interested should submit a curriculum vitae including the names, addresses, telephone numbers and e-smail addresses of at least numbers and e-mail addresses of at least five references, to:

e references, to: Chair Search Committee Department of Computer Sciences University of North Texas P.O. Box 311366 Denton, TX 76203-1366 Tel: (940) 565-2767 FAX: (940) 565-2799

Professional Opportunities

For E-mail inquiry, please contact search@cs.unt.edu Screening of applications will start immediately and will continue until the

search is complete. UNT is an Affirmative Action/Equal Opportunity Employer and encourages applications/nominations from women and menbers of minority groups.

University of Pennsylvania Department of Computer and Information Science

Lecturer Positions

The University of Pennsylvania invites applicants for the position of Lecturer in Computer Science, to start July 1, 2000. Lecturer duties include undergraduate and masters level teaching. The position is for one year and is renewable annually up to three years. Successful applicants will find Penn to

Successful applicants will find Penn to be a stimulating environment conducive to professional growth. In Spring 2000, groundbreaking will take place on a new \$15 Million Computer Science Building. The Department of Computer and Information Science is embarking on a strategic plan for growth over the next five years. We seek to expand and broaden both the applied and theoretical sides of our research and teaching program, building on existing strengths in algorithms our research and teaching program, building on existing strengths in algorithms and computational biology, computer graphics and animation, computer vision and robotics, databases, logic and computation, natural language processing, networks and distributed systems, programming languages, and real time systems. systems

The University of Pennsylvania is an Ivy League University located near the center of Philadelphia the 5th largest city in the United States. Within walking distance of each other are the Schools of Arts and Sciences, Engineering, Medicine, Nursing, Law, Business and Fine Arts. The University campus and the CATS. The University campus and its surroundings in Philadelphia benefit from a rich diversity of cultural opportunities as well as attractive urban and suburban residential neighbor-boods. hoods.

To apply, please complete the form located on the Faculty Recruitment

located on the Faculty Recruitment Website at: http://www.siupenn.edu/ positions/faculty_application.html. Electronic applications are strongly preferred, but hard-copy applications (including the names of at least three references) may alternatively be sent to: Chair, Lecturer Search Committee Department of Computer and Information Science.

Information Science School of Engineering and Applied Science

University of Pennsylvan Philadelphia, PA 19104-6389 Applications should be received by January 15, 2000 to be assured full

consideration. Applications will be accepted until the position is filled. Questions can be addressed to faculty-Questions can be addressed to lacuity-search@central.cis.upenn.edu. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. The Penn CIS Faculty is sensitive to "two body problems" and would be pleased to assist with opportuni-ties in the Philadelphia region.

University of Pennsylvania Department of Computer and Information Science

Faculty Positions The University of Pennsylvania invites

applicants for tenure-track Appointments in both experimental and theoretical computer science to start July 1, 2000. Faculty duties include both research and undergraduate and graduate teaching. Successful applicants will find Penn to be a stimulating environment conducive to professional growth. In Spring 2000,

groundbreaking will take place on a new \$15 Million Computer Science Building. The Department of Computer and The Department of Computer and Information Science is embarking on a strategic plan to add a significant number of renure-track faculty over the next five years. We seek to expand and broaden both the applied and theoretical sides of our research and teaching program, building on existing strengths in algorithms and computational biology, computer graphics and a primeting, computer vision graphics and animation, computer vision and robotics, databases, logic and

computation, natural language processing, networks and distributed systems, software systems, programming languages, and real time systems. The University of Pennsylvania is an Ivy

League University located near the center of Philadelphia the 5th largest city in the US. Within walking distance of each other are its Schools of Arts and Sciences, Engineering, Medicine, Nursing, Law, Business and Fine Arts. The University campus and its surroundings in Philadel-bia benefit from a rich diversity of cultura phia benefit from a rich diversity of cultural opportunities as well as attractive urban and suburban residential neighborhoods. To apply, please complete the form located on the Faculty Recruitment Web

Site at: http://www.cis.upenn.edu/positions/ faculty_application.html.

Electronic applications are strongly preferred, but hard-copy applications (including the names of at least three references) may alternatively be sent to:

Chair, Faculty Search Committee Department of Computer and Information Science School of Engineering and Applied

Science University of Pennsylvania Philadelphia, PA 19104-6389 Applications should be received by

January 15, 2000 to be assured full consideration.

Applications will be accepted until the position is filled.

position is filled. Questions can be addressed to faculty-search@central.cis.upenn.edu. The University of Pennsylvania is an Equal Opportunity/Affirmative Action

Employer. The Penn CIS Faculty is sensitive to "two body problems" and would be pleased

to assist with opportunities in the Philadelphia region.

University of Pittsburgh

Department of Computer Science The Department of Computer Science The Department of Computer Science at the University of Pittsburgh invites applications for two tenure-track positions at the rank of Assistant Professor and one non-tenure-track position at the rank of Lecture: The three position at the fails of Lecture: The three positions would begin with the Fall Term, 2000. Outstanding candidates are sought in (1) the area of artificial intelligence for one

of the Assistant Professor positions and (2) the area of programming languages and analysis for the second Assistant Professor position. Responsibilities include research, supervision of graduate student research (Ph.D. and MS), and graduate and (rr.L) and wo), and graduate and undergraduate teaching. Candidates should have a Ph.D. in Computer Science and demonstrate exceptional research potential and teaching ability. The Lecturer position is to be filled by an outstanding teacher. Besides teaching c undergraduate courses, responsibilities include direction of the Undergraduate

undergraduate courses, responsibilities include direction of the Undergraduate Programs Office. Candidates for this position should preferably have a Ph.D., although applicants with an MS in Computer Science and with other suitable qualifications in advising of students and in curriculum design and management will be considered.

The Department currently has 22 full-time faculty members and provides a stimulating environment for research and undergraduate programs. In particular, the Department already has strengths in artificial intelligence and in programming languages. Other areas of strength in the Department include algorithms & theory, parallel & distributed systems, and software systems & engineering. Departmental resources include extensive computing facilities of over 250 workstations and personal computers with multimedia capabilities and specialized networks and devices. Faculty members also have network access to additional high performance computing platforms provided by the general computing facilities of the University as well as by the Pittsburgh Supercomputer Center (of which the university of Pittsburgh is a founding member). For further information about the Department please see http:// www.cs.pitt.edu.

www.cs.pitt.edu. Applications should include a curricu-lum vitae, identification of which of the above-described three positions is being sought, a statement of research and teaching interests, and names and address

of at least three references. They should be sent to: Professor Siegfried Treu, Chair, Department of Computer Science, University of Pittsburgh, Pittsburgh, PA 15260. Please direct your inquiries to faculty-search@cs.pitt.edu. To ensure full consideration, applications must be received by January 28, 2000. The University of Pittsburgh is an

The University of reasoning is an affirmative action, equal opportunity employer. Women and members of minority groups who are underrepresented in academia are especially encouraged to apply.

University of Puget Sound Department of Mathematics and Computer Science

University of Puget Sound, Department of Mathematics and Computer Science. Full-time, tenure-line Assistant Professor; begins Fall Term 2000. Teach junior/ senior-level courses in architecture and operating systems and possibly other areas along with introductory computer science courses. Three courses/semester. Requires Ph.D. (ABD considered) in computer Ph.D. (ABD considered) in computer science or a closely related field, and commitment to undergraduate teaching and liberal arts education. Preference will be given to candidates whose research interests can incorporate or generate undergraduate research projects. Interested individuals are encouraged to submit application materials postmarked no later than February 7, 2000 to ensure consideration. Send interest letter, curriculum vitae and three reference letters to: Computer Science Search, University of Puget Sound, P.O. Box 7297, Tacoma, WA 98407. An Equal Opportunity, Affirmative Action Educator/Employer

University of Richmond Mathematics & Computer Science Department

Applications are invited for a new tenure track position at the Assistant Professor level beginning Fall 2000. A

Ph.D. in Computer Science is required. Candidates should have a commitment excellence in undergraduate teaching together with the ability to maintain an active research program, preferably involving undergraduate students. The University of Richmond is a predominately undergraduate, highly

selective, private institution enrolling 3,500 students in schools of Arts and Sciences, Business, Leadership Studies, Law, and Continuing Studies.

Applicants should provide a current curriculum vitae, a statement detailing curriculum vitae, a statement detailing teaching philosophy and research interests, and copies of graduate and undergraduate transcripts to Dr. Lewis Barnett, Math & CS Dept, University of Richmond, VA 23173. Applicants should also arrange for three letters of recommendations are acceptable in Postscript, PDF, or common word processor formar. (Send to acceptatic mission provide the common word processor formats. (Send to Ibarnett@richmond.edu) Additional information may be found

on the Web at http://

on the Web at http:// www.mathcs.richmond.edu/csjobs/ Consideration of completed applica-tions will begin immediately and continue until the position is filled. Applications completed by mid-January are guaranteed to receive full consideration. The Univer-sity of Richmond is an Equal Opportunity Employer. Women and minorities are especially encouraged to apply.

University of South Carolina Department of Computer Science

Assistant Professor of Computer Science Applications are invited for at least one tenure-track position in computational science, one of two focus areas of development for the Department of Computer Science. Representative areas in computa-tional science include bioinformatics, visualization, scientific data analysis, modeling, and simulation. The other departmental focus area for growth is forensic computing. Candidates should have a doctorate in Computer Science or a

have a doctorate in Computer Science or a related discipline. The Department has about 500 undergraduate majors and more than 100 graduate students and offers BS, MS, and Ph.D. degrees. The University of South Carolina has an enrollment of more than

26,000 students and is the comprehensive graduate institution in South Carolina. Columbia is the state capital and is the technology center of the state. For more information, see http://www.cs.sc.edu. Applicants should submit a curriculum

Applicants should submit a curriculum vitae, letters preferred, along with the names and addresses of three references to: Search Committee, Department of Computer Science, University of South Carolina, Columbia, SC 29208. Appli-cants will be accepted until positions are filled. Foreign nationals should indicate ourser UIS. immembrane struct

current U.S. immigration status. The University of South Carolina is an Equal Opportunity/Affirmative Action employer.

University of Southern California

University of Southern California COMPUTER SCIENCE (http://www. usc.edu/dept/cs/) invites applications for tenure-track positions from outstanding candidates. Areas include Embedded/Real Time Operating Systems; Databases and Information Management; Genomic Algorithms/DNA Computation; Neural Computation/ Neuroinformatics: and Machine Learning. Exceptional candidates in other areas may also be considered. Please send a comprehensive resume, a list Predict schuld a competentistic residue and a statement of goals to: Paulina Tagle, Computer Science, USC SAL 300, Los Angeles, CA 90089-0781 (paulina@pollux.usc.edu). USC is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

University of Southern California Department of Electrical Engineering-Systems

The Department of Electrical Engineering-Systems of the University of Southern ing-systems of the University of South California invites applications from outstanding candidates for tenure-track positions at all faculty levels. Areas of interest to the department are circuit design and VLSI, communications, computer/communication networks, computer/communication networks, computer engineering, signal processing,

and controls with biomedical applications, Exceptional candidates in all areas will be considered. Applications must include a comprehensive resume, a list of three to a comprehensive resume, a list of three to five professional references, and a letter of interest indicating clearly the position being sought. The applicant is responsible for soliciting the reference eltters to be sent directly to the address below. Senior level applicants should have demonstrated leadership ability in building a strong appricants should have demonstrated leadership ability in building a strong research program and have a distinguished teaching and research record. Please send material to: Chairman, EE-Systems Search

Committee USC EEB 100

Los Angeles, CA 90089-2560 USC is an Equal Opportunity/ Affirmative Action Employer and encourages applications from women and minorities.

The University of Tennessee Department of Computer Science

The Department of Computer Science seeks to fill a tenure-track faculty position at the rank of Assistant Professor beginning Fall 2000. Applicants should have a strong interest in research, preferably in the area of distributed databases or software contingencing field in p engineering, but all major fields in computer science may be considered. Applicants must have a doctoral degree in computer science or a related area

The Department has numerous, ful networked workstations (SUN, IBM, SGI, DEC) for students and faculty. In addition, the department has parallel fully computers of various architectures available in-house, as well as an ATM-connected cluster of high-performance workstations and two Myrinet-connected clusters of Pentium processors. NSF has just awarded the department a \$2 million just awarded the department a \$2 million grant to establish a campus-wide computational grid for research on middleware and applications. The department is or has been a member of several national consortia including the NSF Science and Technology Center for Research in Parallel Computing, the DOE Partnership in Computational Science, and NSFs National Partnership for

Advanced Computational Infrastructure Faculty members collaborate with scientists at the Oak Ridge National Laboratory and have access to their facilities.

Please respond to search@cs.utk.edu Please respond to search@cs.utk.edu. The mailing address is Search Coordina-tor, Department of Computer Science, 107 Ayres Hall, The University of Tennessee, Knoxville, TN 37996-1301. Additional information about the department is available from URL http:// www.cs.utk.edu.

UTK is an EEO/AA/Title VI/Title IX/ Section 504/ADA/ADEA institution the provision of its education and employment programs and services.

University of Texas at Austin Department of Computer Sciences

The Department of Computer Sciences The Department of Computer Sciences of the University of Texas at Austin invites applications for tenure-track positions. We are particularly interested in candidates at the assistant professor level in the areas of systems, itstillizer to choice or neutral lawage intelligent robotics, or natural language. but excellent candidates in all areas and at all levels will be seriously considered. at all levels will be seriously considered. All tenure-track positions require a Ph.D. or equivalent degree in Computer Science or a related area at the time of employment. Successful candidates are emptyment. Successing candidates are expected to pursue an active research program, perform both graduate and undergraduate teaching, and supervise graduate students. The department is ranked among the

top ten computer science departments in the country. It has thirty-six tenure-track faculty members across all areas of faculty members across all areas of computer science and participates in the University's Computational and Applied Mathematics interdisciplinary program. Austin, the capital of Texas, is located on the Colorado River, at the edge of the Texas Hill Country, and is famous for its live music and outdoor recreation. Austin, is do a conter for high-technol. Austin is also a center for high-technol-Austin is also a center for high-technol-ogy industry, including companies such as IBM, Dell, Motorola, Sematech, AMD, MCC, Tivoli, Trilogy, Dejanews, and Origin Systems. For more information please see the department webpage, http:/ /www.cs.utexas.edu/.

/www.cs.utexas.edu/. For instructions on submitting an application, please see: http:// www.cs.utexas.edu/faculty-search or send e-mail to faculty-search@cs.utexas.edu. Inquiries about your application should also be directed to faculty-search@cs.utexas.edu search@cs.utexas.edu

Evaluation of applications will be done throughout the academic year until available positions are filled. Candidates are encouraged to apply early; applica-tions received after January 14, 2000 will only be considered if positions remain available. Women and minority candidates are especially encouraged to apply The University of Texas is an Equal Opportunity Employer.

University of Toronto Department of Electrical and Computer Engineering

Engineering Endowed Chair and Faculty Positions We are proud to announce the Jeff Skoll Endowment and the establishment of a new Endowed Chair in Computer Networks and Innovation. The Faculty of Applied Science and Engineering and the Rorman School of Management are also initial interducing the Jeff Skoll B A Sc. jointly introducing the Jeff Skoll B.A.Sc./ MBA program, which enables students to combine an MBA degree with their

engineering degree. The Department is undergoing a major expansion and is inviting applications for faculty positions as described helow

Endowed Chair in Computer Net works and Innovation The mandate of the Chair is to

provide leadership in building a first-class academic environment for research and teaching in their respective fields, and in

skills among students. Applications are invited from individuals with an outstanding record of research and who have a strong interest in and commitment to teaching at the undergraduate and graduate levels. Areas of interest for the Networks Chair include all aspects of communications networks

architecture, management, protocols, switching, and applications Assistant Professor Positions in Software

Professional Opportunities

As part of the Department's expansion, computer software is one of the areas targeted for substantial growth. Applications are invited for tenure-stre Assistant Professor positions in all aspects of computer software, including software engineering, operating systems, compilers, databases, and mobile computing. Experience in designing, building, and testing large software systems will be a definite asset.

Assistant Professor Positions in Architecture and Hardware and Systems Architecture and Fiardware and Systems Applications are also invited for tenure-stream Assistant Professor positions in all other areas of computer engineering, including but not limited to architecture, distributed systems, embedded systems,

VLSI systems, and multimedia. The Department of Electrical and Computer Engineering at the University of Toronto offers an excellent environment for research and education at the graduate and undergraduate levels, and consistently ranks among the top 10 departments in its field in North America. It attracts outstanding students, has excellent research facilities, and is ideally located in Additional information can be found on the departmental webpage www.ece.toronto.edu.

All positions involve research and teaching at the undergraduate and graduate levels. A Ph.D. degree is required, normally levels. A Ph.D. degree is required, normal in Electrical Engineering, Computer Engineering, or Computer Science. Applicants should send a curriculum vitae and a list of at least three references to: Professor Safwar G. Zaky, Chair, Department of Electrical and Computer Engineering, University of Toronto, 10 Virge Colluene Road, Tevanto, Octoria

King's College Road, Toronto, Ontario, M5S 3G4, Canada. The search will continue until the positions are filled. To ensure consideration, please respond by November 30, 1999. The University of Toronto is commit-

The University of Toronto is commit-ted to employment equity and encourages applications from women, visible minorities, aboriginal people and physically challenged persons. Qualified Canadians and non-Canadians are encouraged to apply.

University of Toronto Department of Computer Science

The Department of Computer Science The Department of Computer Science invites applications for several tenure-track and tenured positions at all levels, and in all three campuses of the Univer-sity of Toronto: St. George (downtown), Scarborough (East) and Erindale (West). The department is an international leader in Computer Science research and education, and is currently undergoing a significant expansion in faculty and

research resources. Excellence in research and teaching is of prime importance to us. We will consider applicants in a wide range of areas within computer science; we are, however, especially interested in computer networks, computer architecture, and all aspects of software engineering and systems including operating systems, distributed systems, programming systems, database systems, programming systems, tatabase systems, computer graphics and human-computer interaction. We are also interested in the interactions of computer science with other disciplines, especially biology, medicine and finance. Salaries are competitive with our North American peers and will be determined according to the successful applicants' experience and

qualifications. Toronto is a vibrant and cosmopolitan city, one of the most desirable in the world in which to work and live. It is also a major centre for advanced technology and the computer industry with which the

department enjoys strong interactions. Applications, which should include a curriculum vitae, a list of publications, and the names and addresses of at least three references, and may additionally include a research and teaching statement and other supporting documentation, should be sent by email (text, postcript or PDF only, please) to faculty-search@cs.toronto.edu or, if that is not possible, by post to Faculty Recruiting Committee Chair

Department of Computer Science University of Toronto

Toronto, Ontario M5S 3G4 Canada The deadline for applications is January 31, 2000. We will consider applications as they arrive and we encourage early applications.

The University of Toronto is committed to employment equity and especially encourages applications from women, members of visible minorities, native persons and persons with disabilities. Qualified Canadians and non-Canadians are encouraged to apply.

University of Toronto Department of Computer Science Department of Electrical and Computer Engineering

Engineering Bell Canada Endowed Chair in Software Engineering The Departments of Computer Science and Electrical and Computer Engineering at the University of Toronto invite applica-tions for the Bell Canada Endowed Chair in Software Engineering. The mandate for the holder of this chair is to provide leadership in building a first-class academic environment for research and teaching in software engineering and systems. This chair is part of a larger joint initiative between Bell Canada and the University of Toronto that encompasses three additional endowed chairs in related fields and will receive substantial research funding from Bell Canada and the Government of Ontario. We seek applications from individuals

with an outstanding record of research who also have a strong interest in and commit-ment to teaching at the undergraduate and graduate levels. The chair is open to all areas of research in software systems

areas of research in software systems including (but not limited to) software engineering, operating systems, distributed systems, and programming systems. Both departments are international leaders in teaching and research in their respective disciplines. Toronto is a vibrant and cosmopollara city, one of the most desirable in the world in which to work and live. It is also a major centre for advanced technology and the computer industry with which both departments enjoy strong interactions. interactions. Applications, which should include a

curriculum vitae, a list of publications, and the names and addresses of at least three references, and may additionally include a research and teaching statement and other supporting documentation, should be sent by email (text, postscript or PDF only, please) to joint-chair-search@cs.toronto.edu or, if that is not

Joint Chair Search Committee c/o Mei Sum Kwan Department of Electrical and Computer Engineering University of Toronto 10 King's College Road Toronto, Ontario M5S 3G4 Canada

Canada The search will continue until the position is filled. To ensure consideration, please respond by January 31, 2000. The University of Toronto is committed to employment equity and especially

encourages applications from women, members of visible minorities, native persons and persons with disabilities. Qualified Canadians and non-Canadians are encouraged to apply.

University of Utah

Department of Computer Science

The University of Utah's Department of Computer Science seeks applicants for tenure-track faculty positions at either the tenure-track faculty positions at either the Assistant or Associate Professor level. The department places a strong emphasis on interdisciplinary, multi-investigator research activities addressing large-scale problems of significant impact. Both research areas and course offerings benefit from the quality and breadth of our faculty and emphasize a balance of theoretical foundations and practical engineering. engineering.

Our recruiting emphasis is in systems, networking, languages, and artificial intelligence, but we will consider strong candidates in all areas of computer science. Applicants should have earned a Ph.D. in Computer Science or a closely related field. The University of Utah is located in Salt Lake City, the hub of a large metro-

politan area with excellent cultural facilities and unsurpassed opportunities for outdoor

recreation only a few minutes drive away. Additional information about the department can be found at http:// www.cs.utah.edu. Please send curriculum vitae, a research

goals statement, a teaching goals statement, and names and addresses of at least four and names and addresses of at least four references to: Faculty Recruiting Commit-tee, c/o Shawn Darby, Department of Computer Science, 50 So. Central Campus Drive, Rm 3190 MEB, University of Utah, Salt Lake City, UT 84112-9205. The University of Utah is an Equal

Opportunity/Affirmative Action Employer Opportunity/Artimative Action Employer and encourages nominations and applica-tions from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

University of Washington Department of Computer Science & Engineering

Engineering Several Faculty Openings The University of Washington's Department of Computer Science & Engineering has several open positions in a wide variety of technical areas in both Computer Science and Computer Engineering, and at all professional levels. Most CSNE research areas are of

Most CS&E research areas are of interest, but especially those that broaden the department in emerging areas or that strengthen existing areas that are below critical mass. A moderate teaching load allows time for quality research and close involvement with students. We expect candidates to have a strong commitment both to research and to teaching.

The department is primarily seeking individuals at the Assistant Professor rank: however, under unusual circumstances and commensurate with the qualifications of the individuals, appointments may be made at the rank of Associate Professor or Professor. We are also seeking non-tenured Research Assistant Professors and Lecturers. Applicants for the tenure-track and research positions must have earned a doctorate by the date of appointment; those for the lecturer position must have earned at least a Master's degree by the date

of appointment. Information about the department can be found on the web at www.cs.washington.edu. Applications received before March 1, 2000 will be given priority consideration. Please send a letter of application, a resume, statement of research and teaching interests, and the names of four references to:

Faculty Recruiting Committee

Faculty Recruiting Committee Computer Science & Engineering University of Washington Box 352350 Seattle, WA 98195-2350 The University of Washington is building a culturally diverse faculty and encourages applications from famile any encourages applications from female and minority candidates. AA/EOE.

University of Washington, Bothell Computing and Software Systems http://www.bothell.washington.edu/ Assistant, Associate & Full Professor Positions

Innovative and growing computer science romatin has multiple openings for tenured/ tenure-track faculty. The Computing & Software Systems (CSS) program at the University of Washington, Bothell (UWB)

offers opportunities to: • Collaborate with local high-tech companies on applied research project:

Teach state-of-the-art, interdiscipli-

reach state of the art, inter-ry computing courses;
 Expand program options for

 Expand program options for undergraduates (e.g., embedded systems, graphics design); and
 Participate in designing a new Master's degree program in CSS. Candidates with at least three years of research, teaching and/or related work experience in the following areas are encouraged to apply: Object-oriented programming, software engineering, networking, HW/SW architecture, embedded systems, operating systems, HCI, database design/develop-ment, process reengineering, technology ment, process reengineering, technology management, artificial intelligence, electronic commerce and other computing-

related disciplines. The CSS Program, in its fourth year of existence, emphasizes and rewards interdisciplinary scholarship and a balance between teaching, research and service

Professional Opportunities

The undergraduate degree program stresses development of competencies associated with life-long learning, critical thinking, problem-solving, communication and problem-solving, communication and management — as well as contemporary programming and technical skills. Situated in the midst of the Northwest's technology corridor, UWB offers opportunities for collaborative work with industry. The University of Washington, Bothell is part of the three-campus University of Washington — one of the premier instructions of biology one of the premier institutions of higher education in the US. UWB will also enjoy relocating to our brand-new, permanent campus prior to the next academic year. QUALIFICATIONS AND DUTIES

Candidates will have a doctorate (required prior to date of appointment) in a relevant field. Successful candidates will be expected to teach a variety of courses, conduct scholarly research, and contribute to program and institution building in this innovative, interdisciplinary environ Faculty are also expected to advise students during their internship with industry/community partners. A determi-nation of rank and tenure at the assistant, associate or full professor will be commen-surate with the qualifications of the individual.

APPLICATION INFORMATION Please send a cover letter, statement of teaching philosophy, evidence of teaching effectiveness, sample course syllabus, statement of research interests and vita Also, please arrange for three letters of reference to be sent to the CSS Search

Committee. The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The positions will remain open until they are filled; however, potential candidates are urged to submit their applications as soon as possible for immediate review. Send applications and/or inquiries to:

CSS Search Committee, University of Washington, Bothell, 22011 26th Avenue SE, Bothell, WA 98021-4900 The University of Washington is an Equal Opportunity/Affirmative Action

University of Wisconsin-Milwaukee Department of Electrical Engineering and Computer Science

The Department of Electrical Engineer-ing and Computer Science at the Univer-sity of Wisconsin-Milwaukee is seeking sity or Wisconsin-Avilwainkee is seeking qualified candidates to fill several tenure-track faculty positions at the assistant professor level in computer graphics, networks, and software and systems. Candidates should have outstanding promise and a strong commitment to both research and teaching. Exceptional candidates in other areas of computer

research and teaching. Exceptional candidates in other areas of computer science consistent with the needs of the department, as well as outstanding senior candidates, may also be considered. The Department offers BS, MS and Ph.D. programs, and current faculty research interests include artificial intelligence, computational geometry research interests include artificial intelligence, computational geometry, computer graphics, cryptography and data security, distributed systems, and program-ming languages and software systems. We are committed to continuing the develop-ment of computer science at UWM and establishing it as an outstanding program. UWM is located in a pleasant residential neighborhood near the shores of Lake Michigan. Additional information on the Department and UWM may be obtained from http://www.cs.uwm.edu.

from http://www.cs.uwm.edu. Applicants should send a curriculum vitae along with the names of at least three references to: Professor Ichiro Suzuki, references to: Professor Ichiro Suruki, Department of Electrical Engineering and Computer Science, University of Wiscon-sin-Milwaukee, P.O. Box 784, Milwaukee, WI 53201. E-mail: suruki@cs.uwm.edu, Tel. 414-229-3718. Applications must be postmarked or E-mailed by February 1, 2000. LWM is an Event Operationality.

postmarked or E-mailed by reorulary 1, zoo-UWM is an Equal Opportunity/ Affirmative Action Employer. The names of those who have not requested that their identities be withheld and the names of all finalists will be released on request.

University of Wisconsin-Madison Computer Sciences Department

The Computer Sciences Department at the University of Wisconsin-Madison has

embarked on a multi-year effort to significantly enhance the strengths of the department. As a part of this endeavor, we hired four new faculty for the 1999-2000 academic year, and have multiple faculty positions available beginning August 2000. We initia englications form automation

positions available beginning August 2000. We invite applications from outstanding candidates in all areas of Computer Science. Applications from candidates in the areas of computer graphics and networking are especially encouraged. Applicants should have a Ph.D. in Computer Science are in a clocab related. Computer Science or in a closely related field with demonstrated strength in field with demonstrated strength in scholarly research. The positions are at the Assistant Professor level, but exceptional candidates at the senior (Associate or Full Professor) level will also be considered. Successful candidates will be expected to teach at the undergraduate and graduate bud in addition to activibility or a level, in addition to establishing a significant and highly-visible research program. Further information about the department may be found at http:// www.cs.wisc.edu/. Applicants should submit a curriculum vitae, statement of research objectives, sample publications, and arrange for at least three letters of reference to be sent directly to: Chair, Faculty Recruiting Committee Computer Sciences Denartment level, in addition to establishing a

Computer Sciences Department University of Wisconsin-Madison 1210 West Dayton St. Madison, WI 53706

Applicants are encouraged to submit their applications as soon as possible, but no later than February 15, 2000.

The University is an Equal Opportu-nity/Affirmative Action employer and encourages women and minorities to apply. Unless confidentiality is requested in writing, information regarding the applicants must be released on request. Finalists cannot be guaranteed confidentiality.

Vanderbilt University Department of Electrical Engineering and Computer Science Nashville, TN

Nashville, IN We invite applications for a tenure-track faculty position at all levels. Our primary target area is computer systems, including networks, operating systems, including networks, operating systems, distributed computing, real-time and embedded systems, software engineering, and databases. However, excellent applications in all areas of computer science and engineering will be considered. Applicants should have a Doctorate or equivalent in Computer Science, Com-puter Engineering, or a closely related discipline. Candidates are expected to develop a strong research program and maintain excellence in teaching. maintain excellence in teaching.

maintain excellence in teaching. The EECS department currently has thirty-one faculty members with a broad range of research interests. The department enrolls approximately 400 undergraduate students in three accredited programs: computer engineering, computer science, and electrical engineering, and about 200 oradvata ruleater in alectrical angingenting graduate students in electrical engineering, computer science, and the interdisciplinary program in computer engineering. In addition, three research centers associated with the department: the Institute for Software Integrated Systems (ISIS), Center for Asynchronous Learning Networks (ALN), and the Center for Intelligent Systems (CIS) encourage and provide ample opportunities for innovative interdisciplinary research. Vanderbilt University is a founding institute for the Internet2 project. For more information about the department and the school, please visit our website at http:// www.vuse.vanderbilt.edu. Applicants should send a resume,

complete publication list, copies of three representative publications, and the names, addresses (postal and e-mail) and telephone numbers of five references. In addition, each applicant is required to submit a one page professional statement describing his or her goals in research and describing his or her goals in research and teaching. The application package should be mailed to the Faculty Search Commit-tee, Department of Electrical Engineering and Computer Science, Vanderbilt University, Box 1679 Sta B, Nashville, TN, 37235-1840. Electronic submissions and inquiries may be made to eecs-search@vuse.vanderbilt.edu. Review of applications will begin December 1, 1090 applications will begin December 1, 1999, and continue until the position is filled.

Vanderbilt University is an Equal Opportunity Employer

Washington State University Director, School of EECS

Director, SCHOU OF EELS Director-The School of Electrical Engineering and Computer Science at Washington State University is soliciting applications and nominations for the position of Director of the School. Candidates must (1) possess a Ph.D. degree in electrical engineering, computer in electrical engineering, computer science or a related discipline, (2) demonstrate outstanding leadership, (3) have an international research reputation, (4) have a clear vision of the growth and development needed to enhance excellence in both teaching and research (5) needed computing the computing the second second computing the second computing the second second second computing the second se emance excenence in four teaching and research. (5) possess good communication skills and the ability to motivate people, (6) aggressively promote the school to universities, industry, and government, (7) be committed to the promotion of faculty research activities, and (8) take the lead in the continued development of a diverse work force. work force.

The School of Electrical Engineering and Computer Science is the largest of five engineering departments in the College of Engineering and Architecture at Washing-ton State University. The School is represented on WSU's four campuses: the main campus at Pullman and three branches at Richland, Spokane and Vancouver. It presently has 40 full-time faculty and is expected to grow to 44 in the near future. Student enrollment consists of 695 undergraduates and 120 graduates. It awards B.S., M.S. and Ph.D. degrees in electrical engineering and computer science, B.S. in computer engineering and a B.A. in computer science. Currently the annual external research budget is over \$4 million with half the funding coming from from other sources. The total school budget exceeds \$8.75 million per year. Major areas of research include energy systems, solid state electronics, com cations and signal processing, electromagnetics, control systems, embedded systems, computer engineering, algorthmics, graphics, distributed systems, knowledge discovery and databases, and computer networks. The School has computer networks. The School has endowed chair positions in software engineering and computer engineering, and various distinguished professorships. Two NSF IUCRC centers are housed in EECS, one for Design of Analog-Digital Inte-grated Circuits and another for Power Foninaering. In addition, there are search Engineering. In addition, there are several

Engineering. In addition, there are severer other strong research groups in electrical engineering and computer science. Washington State University was established in 1891 as a land grant college located in the beautiful rolling hills of Eastern Washington. It is classified as a Carnegie Research I University and is one of the lowest Classified as a Carnegie Research 1 University and is one of the largest residential universities west of the Mississippi with an enrollment of over Mississippi with an enrollment of over Name 1 and 1 and 1 and 1 and 1 and 1 and Name 1 and Mississippi and 1 outstanding public school system, and recreational and outdoor activities are available year-round.

available year-round. Applications and nominations should be sent to EECS Director Search Commit-tee, School of Electrical Engineering and Computer Science, Washington State University, Pullman, WA 99164-2752. Screening of applicants will begin February 15, 2000 and continue until the position is filled filled.

Washington State University is an Equal Opportunity/Affirmative Action educator and employer

Washington University in Saint Louis Department of Computer Science

Applications are invited for tenure track faculty positions at the Assistant, Associate and Full Professor levels. Applicants should hold a doctorate in Computer Science or a closely related field, have a record of accomplishment in research, and demonstrate a strong

research, and demonstrate a strong commitment to teaching. Washington University is a leading private national university recognized for its world class intellectual contributions (20 Nobel Prize Laureates have been associated with the University), its

Professional Opportunities

exceptional resources (an endowment of \$2.8 billion, among the largest in the nation), and its location in the midst of a delightful residential community which places much value on education and culture. With annual external research funding in the range of \$6.3 million, Computer Science is emerging as one of the preeminent departments in the University and the School of Engineering and Applied Science. Over the next several years, the Department plans to expand its size from 16 to 20 regular faculty. This aggressive growth pattern will be accompanied by commensurate increases in departmental resourc

The Department seeks outstanding candidates likely to develop synergistic relationships with existing areas of excellence within the department: networking and communications; distributed computing and object-oriented software technologies; graphics, visualiza tion, and human interfaces; artificial intelligence; computer architecture and engineering; theoretical computer science, algorithms, and programming languages; and computational science with emphasis on biomedical applications. Candidates with a strong background in electronic commerce, embedded systems design, graphics and visualization, and distributed databases will receive special consideration. antanases will receive special consucration With the strong backing of the University and the School, the Department is committed to making significant invest-ments in promising new areas of study and to providing the kind of resources and environment that will enable new faculty members to flourish intellectually. Academic counless seeking to cochocate are Academic couples seeking to co-locate are strongly encouraged to apply. Research groups in search of a highly supportive institutional environment may also want to consider relocating to Washington University.

For more information on our depart-ment, see our World Wide Web page at http://www.cs.wustl.edu. Qualified applicants should send a

curriculum vita and the names and addresses of at least three references to Dr. Catalin Roman, Chairman, Department of Computer Science, Campus Box 1045, Washington University, One Brookings Drive, St. Louis, MO 63130-4899. Applications will be considered as they are received. Those received after February

1, 2000, may not receive full consideration. Washington University is an equal opportunity/affirmative action employer.

Wayne State University

Chair, Department of Computer Science The Department of Computer Science The Department of Computer Science at Wayne State University invites applications and nominations for the position of department chair. The Department of Computer Science, one of nine departments of the College of Science, currently has thirteen faculty members, approximately 350 graduate students and 300 undergraduate majors. It offere R.S. M.S. and P.D. degrage offers B.S., M.S. and Ph.D. degrees. Federal agencies as well as industries support a variety of research programs

within the Department. Wayne State University, located in Detroit's cultural center, is a national, comprehensive research university (Carnegie I) serving 32,000 students. The University has made a strong commitment to information technology and academic

computing. The Chair will provide leadership in The Chair will provide leadership in building and enhancing the Department's research and teaching programs and play a leading role in campus-wide initiatives in information technology. Candidates should have a strong research record and leadership skills. A Ph.D. in Computer Science, or a clocely webset field in Science or a closely related field is required. Women and minorities are particularly encouraged to apply.

Persons wishing to be considered for the position should include a curriculum vitae and the names of at least three professional references.

Please send all inquiries and application materials to: Professor Bill Hase, Chair, Selection

Advisory Committee C/O Office of the Dean College of Science 2155 Old Main Wayne State University Detroit, Michigan 48202

Wayne State University is an Equal Opportunity, Affirmative Employer

Wichita State University

Computer Science Department Applications are invited for one or more tenure-eligible assistant professor positions in the Computer Science Department. The closing date for all applications is February 1, 2000 or the first of the month thereafter, until the positi are filled. Anticipated starting date August 18, 2000. Required qualifications for the

Required qualifications for the position(s) are: Ph.D. in Computer Science (or a closely related area), and demon-strated potential for research, teaching and scholarship. Preference will be given to candidates who can teach courses in the areas of Information Systems, Internet Applications, and Software Systems, and who can also collaborate with existing fourly in research. The research interest of faculty in research. The research interests of the department include algorithms, automated theorem proving, complexity theory, computational biology, computer-aided design, databases, object-oriented systems, and programming languages. The department has recently had research grants from NSF, DoD, Boeing, etc. For more information about the department,

see the web page at www.cs.tws.ucdu. Letters of application including a resume and the names, addresses, phone numbers, and e-mail addresses (if available) of at least three references should be sent to: Search Committee, Department of Computer Science, Wichita State University, Wichita, Kansas 67260-0083. Wichita State University is an AA/ EOE

We encourage applications from women and minority candidates.

Worcester Polytechnic Institute Computer Science Department

The Computer Science Departmer WPI invites applications for one, and possibly two, tenure-track positions beginning August 2000. Candidates should have a Ph.D. in Computer Science or a closely related field, and strength in both research and teaching. Preference will be given to candidates at the assistant professor level in the area of Software Engineering/Programming Languages. We are also interested in excellent candidates are also interested in excellent candidates at ALL ranks who complement and enhance our existing research in artificial intelligence, databases, systems/networks, theory, image science and information

systems. The department grants the BS, MS and Ph.D. degrees in Computer Science, and has a Computer and Communications Networks graduate program, jointly with the Electrical and Computer Engineering

Department. The department offers a collegial, supportive environment, with mechanisms established to encourage interdisciplinary activities The Department is in a strong growth

phase, with nineteen tenure-track faculty, priase, with inflectent termet-track factury, and plans to hire several more over the next few years. The department has a large variety of computing resources, and is committed to providing the most advanced software and hardware environment for both research and teaching. WPI, the nation's third oldest college of engineering and priority has concentration by 2000. and science, has approximately 2,700 undergraduates and over 1,000 full- and part-time graduate students, with over 200 tenure-track faculty. WPI's innovative, project-based undergraduate program, the WPI plan, offers students an unusual, exciting, and academically challenging alternative to traditional curricula. WPI has initiated a process to enhance the role of graduate studies and research. For further information about the

The departmental website is at http:// www.cs.wpi.edu The WPI campus is situated in the heart

of Worcester, close to many of the city's major cultural attractions, including the American Antiquarian Society, the Worcester Art Museum and several major music performance venues. Worcester, the second-largest city in New England, is forty miles west of Boston. The city offers access to the diverse cultural and recreational resources of a major city, with the possibility of a relaxed lifestyle.

Worcester is also the seat of nine other colleges and universities, including the Medical School of the University of Massachusetts. WPI is close to num hitech companies (along the I-495 corridor); it is three miles from a thriving biotechnology industrial park and offers ample opportunities for industrial interaction

To apply, submit a letter of application, resume, and the names, postal addresses, and e-mail addresses of three references to: Recruiting Committee

Computer Science Department WPI, 100 Institute Road, Worcester, MA 01609-2280 Questions about the hiring process, as

well as electronic applications (in post script, ASCII or MS Word) should be addressed to: recruit@cs.wpi.edu To enrich education through diversity, WPI is an Equal Opportunity/Affirmative Action employer.

Xerox Palo Alto Research Center

Systems and Practices Laboratory The Systems and Practices Laboratory a Xerox's Palo Alto Research Center is looking for senior and junior researchers committed to advancing the state of the art in knowledge representation and reason systems.

We are assembling a research team to develop reasoning systems for specific domains that take as input the context of a task and the content of the domain. The team will also explore alternatives for effectively interacting with and supporting existing community work practices. Critical areas of expertise include knowledge representation systems, natura Insurage interpretation, model-based and probabilistic reasoning, learning, and programming ability (e.g., Lisp and/or Successful candidates will have Ph.D. (or commensurate experience) i artificial intelligence or a related field. Researchers will be working in an

energetic multi-disciplinary team seeking to solve both basic research problems around semi-automatic knowledge structuring, and to find ways of applying this in the context

of a real community and knowledge base. How to Apply: Please submit a cover letter explaining reprints of any applicable publications (or URLs thereto). Also, please have references sent to us from at least two people who are qualified to evaluate your work and potential. We prefer e-mail as a mode of communication wherever possible Direct all materials to

serajobs@parc.xerox.com SPL/SERA Administrator Xerox Palo Alto Research Center

3333 Coyote Hill Road Palo Alto, CA 94304 Fax: 650-812-4334

Fax: 650-812-4334 Applications will be acknowledged, by e-mail if possible, and each applicant will be notified individually as soon as a decision has been reached on the applica-tions. Applications will be processed in the order received, and positions will be filled as suitable candidates are identified, so please atbinut your information as goon as please submit your information as soon as possible.

Yale Universitv

Computer Science Department The Yale Computer Science Depart ment is looking for highly qualified candidates for junior faculty positions beginning in the 2000-2001 academic yea We seek to expand and broaden both the applied and theoretical sides of our research and teaching program, building on existing strengths in applied discrete mathematics, combinatorial optimization, compilers, complexity theory, computer vision and robotics, cryptography and security, distributed computing, coordina-tion languages, formal methods and logic, tion languages, tormal methods and logic, functional programming languages, high-performance scientific computing, medical applications, network protocols, numerical methods, and parallel architectures. Other areas of particular interest include computational biology, computational neutroscinoce, computational geometry. neuroscience, computational geometry, computer graphics and visualization, databases, digital libraries, human-computer interaction, multimedia, networking and communications, real-time systems, and software engineering

Applicants are expected to excel in Applicants are expected to excel in both research and teaching. They will find many opportunities for research collabora-tions both inside and outside of the Computer Science department. Interdisci-plinary activities are encouraged with Yale's many world-class research groups in computationally-active fields such as biology, chemistry, economics, engineering, geophysics, mathematics, medicine psychology, physics, and statistics. Yal known for excellence in teaching, and . Yale is applicants will have the opportunity to graduate and undergraduate classes. Candidates should hold a Ph.D. in

Computer Science or related discipline Computer Science or related discipline. Applications submitted by February 1, 2000 will be given highest priority. Qualified women and minority candidates are encouraged to apply. Yale is an Equal Opportunity/Affirmative Action employer. Our homepage may be found at

www.cs.yale.edu. Send curriculum vitae and have at least three letters of reference sent to: Faculty Recruiting Committee, Department of Computer Science, Yale University, P.O. Box 208285, New Haven, CT 06520-8285.

Transitions

Effective January 3, Rick Adrion of the University of Massachusetts at Amherst became Director of CISE's EIA Division at the National Science Foundation. His initial appointment is for 2 years on an IPA assignment from UMass. He replaces John Cherniavsky who moved to NSF/EHR as Senior Science Officer, and Michael Foster who was acting Division Director. Dr. Foster will remain in EIA to direct new initiatives.

Anne Condon has moved to the Department of Computer Science at the University of British Columbia. Professor Condon, who co-chairs CRA's Committee on the Status of Women in Computing Research (CRA-W), was formerly at the University of Wisconsin.

James Foley, board member and Treasurer of CRA, was recently named Executive Director of the State of Georgia's Economic Development Initiative called the 'Yamacraw Mission." The Yamacraw Mission is designed to attract chip design and broadband communications companies to Georgia. Professor Foley, formerly Chairman and CEO of Mitsubishi Electric Research in Cambridge, Mass., is on assignment to the state from a faculty position in the College of Computing and the Department of Electrical and Computer Engineering at the Georgia Institute of Technology.

Mary Jean Harrold has moved to the Georgia Institute of Technology College of Computing, effective January 1, 2000. Professor Harrold, formerly at Ohio State University, chairs CRA's Distributed Mentor Program.

Shankar Sastry is the new Director of the Information Technology Office at DARPA, replacing DavidTennenhouse.Dr.Shankar was formerly Director of the Electronics Research Laboratory and Professor of Electrical Engineering and Computer Science at UC Berkelev.