

Restrictions on Foreign Scientists Could Threaten U.S. Research

Commerce and Defense Propose New Regulations for Research Institutions

By Peter Harsha

For more than 50 years the United States has attracted the best minds in the world to study, teach, and work—an influx of talent that has helped the nation become the world’s dominant economic power, driven its military ascendancy, and improved the lives of its citizens. But changing government policies may put that influx at risk, as regulators threaten to clamp down on the freedom of foreign nationals to pursue research and work with cutting-edge technologies in U.S. universities, federal labs, and companies.

Two recent rulemaking announcements, one by the Department of Commerce’s Bureau of Industrial Security (BIS) in March 2005 and a second by the Department of Defense in July 2005, propose placing new restrictions on foreign nationals who “use” or have access to technology deemed sensitive enough to require export control, even for fundamental research purposes. Both actions stem from reports from the

Office of Inspector General of the respective agencies who, in reviewing existent regulation, determined that “loopholes” existed that could permit “the unauthorized disclosure of export-controlled information or technology.” In both cases, the proposed changes seek to limit the access of foreign nationals to sensitive technology by requiring either special requirements for badges and access, or special deemed export licenses of institutions providing the sensitive information or technologies.

The announcements triggered much criticism from a broad constituency of interested parties in academia, industry, other federal agencies, and even members of the U.S. Senate. In response to its March announcement of proposed rulemaking, BIS received more than 300 filed comments totaling over 1,100 pages by the June 27, 2005 comment deadline, almost all opposing the proposed rule. Included

among those opposing were academic associations like the Association of American Universities and the American Association for the Advancement of Science (CRA also filed comments opposing the rule changes¹); industry members like Boeing, Halliburton, and the Information Technology Association of America; federal agencies like the National Science Foundation and the National Institutes of Health; and U.S. Senators Jeff Bingaman (D-NM) and Lamar Alexander (R-TN).²

The agency proposed three specific changes to current rules:

1. Evaluate deemed export applications not just on country of citizenship and permanent residence, but on country of birth as well;
2. Expand the definition of “use” of controlled technologies to any form of instruction on their operation, including access to manuals and, by a conservative reading, visual access to a machine or source code; and
3. Exclude from the fundamental research exemption all research conducted under government sponsorship that is

subject, either by regulation or prudential practice, to prepublication review.

In general, those submitting comments opposing the rules (including CRA) made similar points. First, they argued, it is unjust and anti-democratic to judge people on their country of birth. The country-of-birth rule would create the perception that America is hostile toward foreign scientists and students at a time when their presence here is vital to our economy and national security. Worse, it would create castes of citizens so that, for instance, some British citizens would be more equal than others (a British citizen born in Germany would have different rights than a British citizen born in Syria). Industry respondents and comments from the Equal Employment Opportunity Commission also noted that complying with the proposed regulations regarding country of birth would pose logistical and legal problems for employers in the United States and abroad.

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NSF/CISE Plans GENI Initiative

By Peter A. Freeman, NSF

CISE is planning an initiative called “Global Environment for Networking Investigations” (GENI) to explore new networking and other capabilities that will advance science and stimulate innovation and economic growth. The GENI Initiative responds to an urgent and important challenge of the 21st century to improve significantly the capabilities provided by networking and distributed system architectures.

The GENI Initiative envisions the invention of and experimentation with new networking architecture paradigms and associated services to show the way to the networking and distributed system architectures of ten to twenty years from now that, for example:

- Build in security and robustness;
- Enable the vision of pervasive computing and bridge the gap between the physical and virtual worlds by including mobile, wireless, and sensor networks;
- Enable control and management of other critical infrastructures;

- Include ease of operation and usability; and
- Enable new classes of societal-level services and applications.

At the same time, we intend that it will provide a platform for innovative research in a number of CSE fields such as databases, operating systems, languages, and control systems—much as the original Internet has spurred research in everything from theory to chips. What will result in the broader sweep of CSE research is, of course, unforeseeable.

The GENI Initiative comprises two components: the GENI Research Program and the experimental GENI Facility. It is intended to catalyze a broad community effort that will engage other agencies, other countries, and corporate entities.

Networking research that is the core of and reason for this Initiative will focus on designing new network architectures and services by rethinking network functions; designing in key capabilities such as security, robustness, and economic viability; and including applications and new tech-

nologies as design components. Technologies may range from new wireless and sensor devices to customized routers and optical switches to control and management software. Research will call on multiple disciplines to explore a spectrum of areas from large-scale distributed services to high-level policy (e.g., network access).

Beyond the core focus on networking, we can envision broader research on:

- **Core theory:** expanding information theory and formulating a new communication framework, considering the temporal and spatial distribution of information and power; viewing electromagnetic spectrum as a natural resource, investigating relationships to theoretical foundations of social computing, microeconomics, and biology; developing an evolution theory for computing and

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Expanding the Pipeline

Ladner Recognized with Presidential Award

By Eve Riskin and Ed Lazowska

On May 16, 2005, Richard Ladner, Boeing Professor of Computer Science & Engineering (CSE) at the University of Washington, was one of nine individuals to receive the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM) at a White House ceremony. Ladner, who is well known for his work in computer science theory, was recognized for his long-time support of women and people with disabilities in computer science.

The under-representation of women, minorities, and people with disabilities is severe in the field of computer science. The impact of this lack of diversity is particularly unfortunate because computer scientists create end-user systems that inevitably reflect the cultural and physical biases of their designers and implementers. If the creators of these systems do not reflect the diversity of our society, then the systems will likely be optimized for use by a subset of this society. Writes Wm. A. Wulf, President of the National Academy of Engineering, "... as in any creative profession, what comes out is a function of the life experiences of the people who do it...Every time we approach an engineering problem with a pale, male design team, we may not find the best solution."

Ladner has served as mentor to University of Washington women at the undergraduate, graduate, postdoctoral, and faculty levels. Several of these women have won impressive awards, including an Association of Computing Machinery Doctoral Dissertation Award (Anne Condon); a Rhodes Scholar Finalist (Erin Earl); the Capocelli Prize for the best student-authored paper at the IEEE Data Compression Conference (Suzanne Bunton); Finalist for the Computing Research Association (CRA) Outstanding Woman Undergraduate Award (Erin Earl); and Honorable Mention for the CRA Outstanding Woman Undergraduate Award (Mandy Askew).

Even more striking than his work with women has been his outreach efforts to students with disabilities. Ladner's interest in people with disabilities is largely personal: he is the hearing child of deaf parents and, hence, is fluent in American Sign Language (ASL).

As one example of his work with people with disabilities, in 1985 Ladner taught a computer science course (Introduction to Formal Models in Computer Science) in ASL at Gallaudet University, the only university for the deaf in the world. As another example, in the 1980s, his "DBnet" research project pioneered computer networking (remote login and e-mail) for Seattle's deaf-blind community using innovative large print and tactile

displays. During this period, Ladner worked with Barbara J. Wagreich, a deaf-blind computer professional, on ideas to develop DBnet to its full potential. He also worked with then-CSE-graduate-student Ephraim Glinert on a large print user interface for terminals connected to Unix machines. Inspired by some comments by Bill Gates when he visited CSE in the mid 1980s, Ladner became interested in federal laws about computer access for individuals with disabilities. As a result, he organized a panel at the Conference on Human Factors in Computing Systems (CHI '88) titled "Public Law 99-506, Section 508, Electronic Equipment Accessibility for Disabled Workers." This panel inspired him to write the paper, "Computer Accessibility for Federal Workers with Disabilities: It's the Law," for the *Communications of the ACM*.

Since 2002, Ladner has been serving as the Ph.D. adviser to Sangyun Hahn, a blind student in CSE. When Hahn applied to the Ph.D. program, several faculty members expressed concern that he might have trouble completing the program. Ladner simply wrote on Hahn's file, "He'll do great." Following Hahn's arrival at UW, Ladner started a project in collaboration with Professor Melody Ivory of the UW Information School entitled "Automated Tactilization of Graphical Images." This work enables blind people to "view" diagrams, graphs, and charts in textbooks and technical papers that have been translated into a tactile form. It was inspired by the difficulty that Hahn was having in getting access to the graphs, bar charts, diagrams, and illustrations in his textbooks. Essentially, Ladner developed a project for Hahn in which Hahn's disability actually became his strength. This work has been funded by two NSF grants and has been receiving a lot of media attention as an example of how computer science can impact the quality of life of people with disabilities.

One of the first results of this project, a tactile directory of the new Paul G. Allen Center for Computer Science & Engineering, includes tactile layouts of the seven floors of the building. More recent projects include producing tactile versions of the figures in Hennessy and Patterson's graduate computer architecture book and in Ostlie and Carroll's college-level astronomy books. Writes Hahn about his research, "Can you imagine a blind man doing research on image processing? From time to time, I am amazed at myself. No, in fact, not at myself, but at my adviser, Professor Ladner."

In addition, during every summer but one since 1994, Ladner has spent a week working with the University of Washington's Disabilities,

Opportunities, Internetworking, and Technology (DO-IT) program, a winner of the PAESMEM in 1997. He supervises high school students with disabilities on computing projects such as cellular automata, which can model image-processing tasks; games such as the Game of Life; and behaviors like those found in Stephen Wolfram's "A New Kind of Science." Each summer, he recruits graduate and undergraduate student volunteers to work with the high school students on a one-on-one basis.

Over the years, 38 high school students with severe disabilities have come through Ladner's DO-IT workshops. Of these 38 students, all but one are pursuing a college degree—seven in a computing field, and an additional 13 in other areas of science, engineering, and mathematics. (The one who did not enter college is working in the computing field.)

Beyond computer science, Ladner has been an important contributor to the disabled community on many levels. He is currently volunteering as co-chair of the Steering Committee for the Abused Deaf Women's Advocacy Services (ADWAS) that is raising \$8.6 million for "A Place of Our Own," which will be the first transitional housing in the nation specifically for deaf and deaf-blind victims of domestic violence. Writes Marilyn J. Smith, Executive Director of ADWAS, "Richard exemplifies the ideal volunteer—generous with his time, his expertise, his mentoring. When he commits, it is long-term... His respect for deaf culture and American Sign Language is obvious from the way he works to 'fit in,' rather than expecting us to assimilate into his hearing world."

In addition to his work for the Abused Deaf Women's Advocacy Services, Ladner is on the Board of Directors of the American Sign Language and Interpreting School (ASLIS), a small school in Seattle that trains the top ASL interpreters in the area. In the past he has served on the Board of Directors of the Deaf-Blind Service Center, an agency that serves the sizable group of people in the Seattle area who are both deaf and blind. He also served on the Board of Directors of the Hearing, Speech, and Deafness Center, which is one of the largest agencies in the State of Washington that serves the needs of deaf clients. Within the University of Washington Ladner, together with Professor Sharon Hargus of the Linguistics Department, is spearheading a proposal to initiate an ASL program.

In response to the new initiative in NSF CISE, called "Broadening Participation in Computing," Ladner and Sheryl Burgstahler,

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Results of CRA’s 2004 Salary Survey of Computing Research Staff in Industrial Labs

By Dick Waters

In December 2004 and January 2005, CRA conducted its eighth annual salary survey of computing research staff in industrial laboratories. Twelve organizations representing 879 researchers responded. Of these 879 researchers, 76 percent held PhDs, 17 percent master’s degrees, and 7 percent bachelor’s degrees; three researchers had no degree. As can be seen in Table 1, the level of participation in the survey was anomalously low in 2003. It returned to typical levels in 2004. Organizations were asked to provide data on base salary and total cash compensation (which includes items such as bonuses). Respondents were asked to report means and medians for each category. Companies that completed the survey received detailed results in April 2005. A summary of the results is presented in Table 2.

Observations

The most important thing to notice about Table 1 is that the number of labs participating is not very large. (The number of industrial members of CRA is not very large.) Therefore, the decision of a single lab to participate or not has a significant impact on the overall statistics. CRA’s Taulbee Survey of university salaries is

much more stable because there are more than 10 times as many institutions involved, and changing a few participants has relatively little impact on aggregated data. The volatility of the industrial salary survey means that considerable caution must be exercised when comparing results from one year to the next. In particular, the participation in the 2003 survey was so different from other recent surveys that it is not a useful basis for comparison. In addition to having two fewer labs than in 2002 or 2004, it had several key participants in 2002 and 2004 replaced by new, smaller labs. In contrast, the participants in the 2002 and 2004 surveys are much more similar. For that reason, Table 2 compares the 2004 data with 2002 data instead of with 2003 data.

Table 1. CRA Industrial Salary Survey Annual Participation		
Year	# of Labs	# of Researchers
1997	9	655
1998	8	644
1999	12	1,378
2000	14	1,189
2001	11	689
2002	12	706
2003	10	416
2004	12	879

Over that two-year period, total cash compensation increased at a compound annual rate of 4 to 5 percent for new PhDs and researchers with more than 10 years of experience. Increases were in the 1.5-percent range for researchers with 1 to 10 years experience.

The main finding of the 2002 survey was a gain of about 5 percent over 2001 in compensation for experienced researchers, but a drop of almost 4 percent in compensation for new PhDs. In the 2004 survey, new

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Table 2. Total Cash Compensation by Years of Post-PhD Experience						
	2004		2002		% Increase per year 2002-2004	
	Median	Mean	Median	Mean	Median	Mean
New PhD	\$108,771	\$110,195	99,700	99,500	4.5%	5.2%
1-5 Years	\$114,357	\$115,883	110,400	112,900	1.8%	1.3%
6-10 Years	\$134,081	\$140,254	129,900	132,200	1.6%	3.0%
11-15 Years	\$153,879	\$154,235	140,800	141,700	4.5%	4.3%
16+ Years	\$158,644	\$161,264	147,100	147,500	3.8%	4.6%

Musings from the Chair Computing Education and Careers: Perceptions, Myth, and Reality

By Dan Reed, CRA Board Chair

If one believes the popular press, computer science careers are going the way of the passenger pigeon and the woolly mammoth. Of course, we know better. First, we’ve “seen this movie before” as enrollments dipped in the 1980s, before skyrocketing again during the dot-com boom. Some degree of oscillation is inevitable in a field where the core technologies evolve so rapidly. Second, computing really is the consummate liberal arts education for the 21st century. We live in an information-rich world, which is nonetheless facing complex problems with subtle dependencies that cross diverse domains of science, engineering, business, ethics, and social and public policy. In such an environment, flexible problem-solving skills, information management acumen, and the ability to interact effectively with experts in multiple disciplines is the quintessential definition of a computing expert. The burgeoning need for individuals who combine deep computing skills with domain knowledge and the

willingness to work collaboratively with interdisciplinary teams belies the popular belief that computer scientists are a vanishing species. The change is subtle but important. We have long known that relatively few of our graduates regularly write compilers, build operating systems, derive complexity results, or design new chips. Instead, most of them apply their computing skills to advance business, scientific, or policy goals. In the recent President’s IT Advisory Committee (PITAC) report on computational science, *Computational Science: Ensuring America’s Competitive Future*,¹ which I had the privilege to help write, we discussed the university organizational structures and knowledge silos that often make it difficult for us to train students to work in groups whose members are drawn from multiple disciplines. Bill Gates has made similar points in his tours of college campuses—we need more information technology workers, not fewer, but they must have the right knowledge base and competitive skills.

In light of the changing marketplace and shifting enrollments, perhaps it is time for us to rethink some of our long-held assumptions about the computing curriculum and its relevance. This is a delicate balance—over-reaction to short-term trends is bad, but so is ossification and resistance to change. Potential questions include:

- What should every computing major know and how should this evolve? This is not merely a question about course contents and curricula, but rather a philosophical question about the core elements of computing education.
- How do we increase the ability of our students to communicate and to work in multidisciplinary groups?
- What are best practices in building collaborations with other disciplines, in both education and research?
- How can we better publicize and market our successful collaborative engagements with

other disciplines? Simply put, how do we increase the awareness of potential students that a computing education is a passport to rich intellectual engagement in the arts, humanities, science, engineering, business, and public policy? The National Science Foundation will soon hold a series of invitation-only regional workshops on these and other issues related to computing education, “Integrative Computing Education and Research: Preparing IT Graduates for 2010 and Beyond.” I encourage all of us to think about these critical issues.

Dan Reed, CRA’s Board Chair, is the Chancellor’s Eminent Professor at the University of North Carolina at Chapel Hill and Director of the interdisciplinary Renaissance Computing Institute (RENCI).

Endnote:
¹This and other PITAC reports are available at <http://www.nitrd.gov/>. ■

ACM SIGCSE Sponsors First International Computing Education Research (ICER2005) Workshop

By Mark Guzdial, Sally Fincher, and Richard Anderson

The University of Washington, Seattle hosted the first International Computing Education Research (ICER) workshop the first weekend of October 2005. Sponsored by ACM SIGCSE, the gathering drew nearly 60 participants from America, Europe, Asia, and Australia to present and discuss research on how people come to understand computing, and how to improve that understanding.

The presentations addressed issues ranging from explaining why some students succeed in their first computing courses, to developing evaluation metrics for student programming environments, to considering how much paradigm or language really matter in teaching programming.

The challenges facing computing education are enormous. Enrollment in computing courses and majors is declining. The percentage of women and minority groups is lower than one would expect or desire. Failure rates in computing courses are shockingly high. All of these are true at a time when we recognize the extent to which our society relies on computing technologies and the people who know how to design, structure, maintain, and utilize these technologies.

Computing education, as a research discipline, is the study of how people come to understand computational processes and devices, and how to improve that understanding. Computing education is important to both professionals in IT fields and a technologically literate citizenry. The research study of how the understanding of computation develops, and how to improve teaching and learning about computation, is critically important for the technology-dependent societies in which we live.

The goal of the ICER workshop was to gather high-quality contributions to the computing education discipline. The peer review process (less than half of the submitted papers were accepted) emphasized papers that drew on a theoretical foundation with a strong empirical basis. The papers presented at the workshop drew from a wide range of methods used in education, sociology, psychology, and cognitive and learning sciences to further our understanding of computing education.

The invited keynote speaker, Cindy Atman from the University of Washington, Seattle, kicked off the workshop by presenting more than ten years of empirical data collection and analysis on the stages of developing design expertise in engineering. She watched students, engineering faculty, and expert professional engineers practice design on the same problem, the design of a neighborhood playground. From a detailed analysis of a subject's moment-by-moment "think aloud" commentary, she could show how students developed their design expertise over four years of schooling. She showed how

different faculty varied in their design activity, from an approach not unlike senior engineering students to approaches that were much more focused on out-of-the-box generation of ideas. Her latest work with expert designers suggests similar ranges of design activity, from those who focus on innovative ideas to those who focus on issues of cost and real-world feasibility.

A significant percentage of the ICER attendees had been involved in one of several multi-institutional, multi-national studies (MIMN) in computing education that have been conducted over the past five years. The point of these studies was to test generality that no single classroom study at a single institution could. Raymond Lister (Institute of Technology, Sydney, Australia) presented a paper that described the value of this style of research in computing education and traced its history. The MIMN studies have played an important role in drawing new computing education researchers into the community.

The first of the papers, "What really matters in teaching about computing?" drew from data in one of the recent MIMN studies. Gary Lewandowski (Xavier University) presented a study exploring what students know, don't know, and aren't sure whether they know or not. They found that better-performing students are more certain of what they just don't know. They found commonality in the terms that were the most confounding for students (e.g., typically abstract terms like "state" and "decomposition") across many kinds of introductory classrooms using a variety of teaching paradigms. Allison Tew (Georgia Institute of Technology) presented work with a similar theme in her study of students from two quite different introductory courses who then took the same follow-up course. While there were significant differences in student understanding at the start of the second course, those differences disappeared by the end of the class, raising the issue of just what differences in introductory courses really matter.

One of the most commonly asked questions at ICER was, "What makes students succeed?" Susan Widenbeck (Drexel University) presented a model built up from multiple regression showing the important role that a student's sense of his or her own ability (self-efficacy) played in success—and failure. Her model showed that students with low ability but inflated self-efficacy tended not to succeed. A study of the role of learning strategies presented by Desmond Traynor (NUI Maynooth, Ireland) emphasized that critical issues in learning computing were factors like students having good learning strategies (e.g., checking one's own understanding) and finding value in what they were doing.

Powerful insights on "How students think about computing" came from studies employing a wide range of methods. Yifat Ben-David Kolikant (The Hebrew University of Jerusalem) interviewed, tested, and observed students to demonstrate how their sense of "systematic testing" often devolved into "testing every input I could think of." She found that students have a sense of "relative correctness" that experts found was, frankly, "wrong." Anna Eckerdal (Uppsala University, Sweden) used phenomenographic methods to explore what students think it means to utilize "programming thinking." Her students exhibited some understanding of what she called "procedure conceptions," where they saw programming as a set of rote procedures, to object conceptions, where they demonstrated deeper understanding of computing concepts. Beth Simon (University of California, San Diego) presented MIMN study data of the strategies students used in trying to solve multiple-choice questions about program code. Simon found that the students utilized a wide range of strategies rather than relying on one or two successful ones, and that this characterization fit across the hundreds of students they studied.

The question "How should we teach computing?" was explored in several studies. Chris Hundhausen (Washington State University) used ethnographic field techniques in comparing two "studio-based" data structures classes, where students created visualization of algorithms in teams and then presented them to the rest of the class. In one class, students used an algorithm animation tool, and in the other, students used simple art supplies like transparency sheets, scissors, and markers. He found that the art supply group tended not to get caught up in details, but also didn't develop their visualizations in enough detail to describe the algorithm as well as the tool-using students did. Jackie O'Kelly (NUI Maynooth, Ireland) described case

studies where students were found utilizing software engineering problem-solving in non-programming problems. She is trying to come up with problems, outside of computing, that help students to develop expertise in these strategies for solving computing problems.

Computing education necessarily involves the use of computing tools, and papers at the ICER workshop addressed the issue "How do we evaluate and choose novice programming environments?" Ari Korhonen (Helsinki University of Technology, Finland) presented a taxonomy of algorithm visualization tools emphasizing "effortlessness"—making it as easy as possible for teachers to create visualizations. Paul Gross (Washington University in St. Louis) discussed how novice programming environments were studied. Both papers noted a lack of theory in the design and evaluations of these tools and little replication of studies for more generality of findings. The bottom-line finding of these, among many other papers at ICER, was that the field of computing education research is new—we have a long way to go in developing our theories and methods.

ICER2005 proceedings will appear shortly in the ACM Digital Library. A CD of the proceedings will be included for all ACM SIGCSE members in the December issue of the *Inroads* bulletin. Additional information from this workshop is available at: <http://icer2005.cs.washington.edu/>. Planning for the next ICER workshop is already underway.

Mark Guzdial is an Associate Professor in the College of Computing at the Georgia Institute of Technology; **Sally Fincher** is Head of the Computing Education Research Group at the University of Kent; and **Richard Anderson** is a Professor in the Department of Computer Science and Engineering at the University of Washington. They were the organizers of the recent ICER 2005 workshop. ■

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Second, critics argued, the rule changes are confusing, especially as they relate to the word “use.” The report from the Department of Commerce’s Inspector General that motivated the proposed change provides a broad enough conception of the word “use” that commentators suggested “even seeing a machine could count as ‘use’” and that the burden of determining when “use” occurs would fall on researchers and their institutions.

Critics also cited the potential costs to researchers, their institutions, and even the Department of Commerce should the rules be accepted. The number of deemed export applications would skyrocket, they said, placing undue burdens and hurdles on institutions. Many cited what they believed was a misunderstanding on the part of the Commerce IG and the BIS of the role of editorial review and how scientific research works. Many also wondered whether the proposed regulations attempt to solve a problem that does not exist to any significant degree.

Lastly, critics of the BIS proposed rule, including the official responses of the National Institutes of Health and the National Science Foundation, noted the important contribution of foreign scientists, engineers, and graduate students to the U.S. economy and national security and raised concerns about the effect of the proposed rule on perceived environment for foreign researchers in the U.S. In particular, the agency critics noted that the proposed rule also appears to violate a still operational Reagan-era National Security Decision Directive (NSDD-189) exempting all unclassified fundamental research from restriction. NSDD-189 indicates that the appropriate method for limiting the dissemination of sensitive fundamental research is to classify it, forbidding any sort of additional “sensitive but unclassified” restriction.

The Department of Defense announcement concerns those institutions performing contract work for the agency, requiring contractors to establish an export control system for potentially covered technologies and requiring badges for foreign-national employees. Comments on the DOD proposed rule are not due until after this issue of CRN goes to press, but many of the same groups who responded to the BIS rulemaking are expected to comment on the DOD rule. Of significant concern to the academic community is what is *not* included in the DOD rule, and that is any mention of NSDD-189 and the fundamental research exemption. Though the Department has indicated it does not anticipate applying the proposed rules to fundamental research environments, the lack of explicit language exempting fundamental research is troubling to the

academic community.

But perhaps more troubling to the academic community is the signal that these announcements, along with post-9/11 tightening of visa rules and regulations, send to the global community. For a country so dependent on the influx of the world’s best minds to help drive its innovation, are we now making the research environment that was so appealing to those innovators more hostile?

In testimony before the House Judiciary Subcommittee on Immigration, Border Security, and Claims in September, which was examining “Sources and Methods of Foreign Nationals Engaged in Economic and Military Espionage,” National Academy of Engineering President William A. Wulf addressed this point explicitly:

“The United States still benefits from educating and employing a large fraction of the world’s best scientists and engineers. We have great research universities that remain attractive to the world’s best and brightest. We are envious for our non-hierarchical tradition that allows young scientists, with new ideas, to play leading roles in research. We have progressed because we fostered a tradition of free exchange of ideas and information and embraced a tradition of welcoming talented people from elsewhere in the world. But our advantage is eroding under current and proposed policies.”

“The international image of the United States has been one of a welcoming ‘land of opportunity’; we are in the process, however, of destroying that image and replacing it with one of a xenophobic, hostile nation. We are in the process of making it more likely that the world’s ‘best and brightest’ will take their talents elsewhere. The policies that superficially appear to make us more secure are, in fact, having precisely the opposite effect.”

At press time it was not clear whether BIS or DOD would ultimately adopt their respective proposed rules. For the latest details, check CRA’s *Computing Research Policy Blog* at: <http://www.cra.org/govaffairs/blog>.

CRA’s 2005 Tisdale Fellow, **Daniel Rothschild**, contributed to this report.

Endnotes:

¹Available online at: http://www.cra.org/govaffairs/blog/archives/computing_research_association.pdf

²An 86 mb pdf containing all comments filed is available at: <http://www.bxa.doc.gov/FreedomForInformation/FINAL%20deemed%20doc%20without%20respective%20comments%20revised.pdf> ■

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Nominees Sought for CRA Board

The Computing Research Association seeks your help in suggesting nominations for its Board of Directors. The deadline for receipt of nominations is **January 17, 2006**.

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 represents the interests of the entire computing research community, and it is CRA’s policy to solicit a broad range of candidates. From the nominations received, the elections committee selects the candidates whose names will appear on the ballot.

In past elections there has often been a shortage of industry nominations. For that reason, the committee particularly encourages the nomination of candidates from the industrial sector.

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.
- Improving public and policymaker understanding of the importance of computing and computing research in our society.

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

Additional information on CRA and its activities is available on the Web at <http://www.cra.org> or by e-mailing elections@cra.org.

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. Those who are nominated are required to write a brief statement (not to exceed 100 words) supporting their nominations.

To receive a nomination form, send an e-mail request to elections@cra.org. Nominations must reach CRA by **January 17, 2006**. ■

CRA Service Awards 2006

Distinguished Service Award

A. Nico Habermann Award

Nominations Due: **February 4, 2006**

See: <http://www.cra.org>

CRA-W Announces New Co-Chairs

Lori A. Clarke and Lori L. Pollock have been selected as the next co-chairs of CRA-W and began their three-year term in October.

Clarke, Professor of Computer Science at the University of Massachusetts, Amherst, is a member of the CRA Board and has served on CRA-W since 2001. She has coordinated the Distributed Mentor Project and led CRA-W’s fund-raising activities. Pollock, Professor of Computer Science at the University of Delaware, has served on CRA-W since 2003. She has organized the CRA-W Career Mentoring Workshops and served as co-chair of the Graduate Cohort Program.

Retiring co-chairs, Carla Ellis, Professor of Computer Science at Duke University, and Mary Jean Harrold, Professor of Computing at Georgia Tech, both members of the CRA board, will continue to serve on CRA-W and direct other CRA-W projects. ■



Lori A. Clarke



Lori L. Pollock

Transitions and Awards

Congratulations to **Annie Antón**, Associate Professor of Computer Science, North Carolina State University (currently on sabbatical at CERIAS at Purdue), who received the “Woman of Influence in the Public Sector” award from the Executive Women’s Forum and CSO magazine for her work in privacy, security, and education.

Vint Cerf has left his post at MCI to become Google Inc.’s “Chief Internet Evangelist.” He will help prepare for the future of Web systems and applications. Cerf is considered a founding father of the Internet for developing its basic communications protocol.

NSF CISE has announced the appointment of two new Division Directors—**Michael Foster**, Division of Computing and Communication Foundations; and **Wei Zhao**, Division of Computer and Network Systems.

Jon Kleinberg, Professor of Computer Science at Cornell University, has been named a recipient of the prestigious John D. and Catherine T. MacArthur Foundation Fellows awards for 2005. The awards are based on creativity, originality, and potential; Kleinberg was recognized for his research revealing the deep structure of complex networks such as genomes or computer networks, and creating new methods to extract the information embedded in them. Awardees receive \$500,000 in “no strings attached” support over the next five years.

Adam Stubblefield, winner of CRA’s male Outstanding Undergraduate Award in 2002 while a student at Rice University, has been named one of the *Technology Review*’s top technology innovators under age 35 (as of October 1, 2005). Stubblefield, who is 24, received his doctorate from Johns Hopkins in the spring. He has become a champion at finding holes in supposedly secure systems.

Xiaodong Zhang has been appointed Chair of the Computer Science and Engineering Department at The Ohio State University, effective January 1, 2006. He will also hold the Robert M. Critchfield Professor in Engineering at OSU. He is currently the Lettie Pate Evans Professor of Computer Science and the Department Chair at the College of William and Mary. ■

CDC Call for Participation

The Coalition to Diversify Computing is pleased to announce a call for participation for its “Support to Attend Technical Conferences” program. **The deadline is November 15, 2005;** announcement of awards will be made by November 30, 2005.

This program assists students and their faculty mentors to attend conferences in specialized areas of research in the area of computing (e.g., ISCA and HPCA in computer architecture or SC in high-performance computing) that are sponsored, co-sponsored, or in-cooperation with one of the CDC supporting societies (ACM, CRA or IEEE/CS).

Underrepresented ethnic minority students participating in STEM (Science, Technology, Engineering, and Mathematics) research who would not otherwise be able to attend such conferences are particularly encouraged to apply. Reimbursement of related expenses up to \$1,000 is available for a student; when eligible, a mentor can receive up to \$1,000 of support as well. For more information see: http://www.ncsa.uiuc.edu/Outreach/CDC/cdc_programs/sending_students/index.html ■

Results of CRA’s 2004 Salary Survey from Page 3

PhDs showed the highest increase, while those with 1 to 5 years of experience showed the lowest.

In addition to comparing the 2004 industry data with historic industry data, it is interesting to compare it with current university salaries. The latest Taulbee university salary data are summarized in Table 3. (For full results, see the May 2005 issue of *Computing Research News* at <http://www.cra.org/CRN/issues/0503.pdf>)

Table 3. 9-month Academic Salaries from 2004 Taulbee Survey		
Total Faculty 153 US CS Departments		
	Median	Mean
Non-Tenure Teaching	\$ 58,075	\$ 57,403
Assistant Professor	\$ 79,079	\$ 79,080
Associate Professor	\$ 87,918	\$ 87,829
Full Professor	\$ 114,188	\$ 111,272
New PhDs in Tenure-Track Positions US CS and CE Departments		
Tenure-Track Faculty	\$ 77,610	\$ 77,585
New PhDs in Non-Tenure-Track Positions US CS and CE Departments		
Researcher	\$ 55,566	\$ 55,566
Postdoc	\$ 48,476	\$ 48,573
Teaching	\$ 56,125	\$ 56,125

Table 3 and Table 2 cannot be directly compared because Table 3 reflects 9-month salaries while Table 2 lists 12-month salaries, and because the definitions of the experience levels in the two tables are not the same. Nevertheless, multiplying the faculty salaries in Table 3 by 12/9ths to take account of the additional three months of salary professors can typically get from other sources, and approximately lining up the experience levels, suggests that tenure-track faculty are paid approximately 5 to 15 percent less than industrial salaries with, by far, the greatest differences at mid career. No matter what adjustments you make, non-tenure-track positions in universities are paid spectacularly less than industrial salaries, with the typical post doc probably ending up with not much more than half the salary of a new industry PhD.

In October 2005, CRA will be contacting industrial labs about participating in the 2005 survey. Companies that complete the survey should receive the results in January.

Dick Waters is President and CEO of Mitsubishi Electric Research Labs. He is a member of the CRA Board and its Executive Committee. ■

Riding the Rails

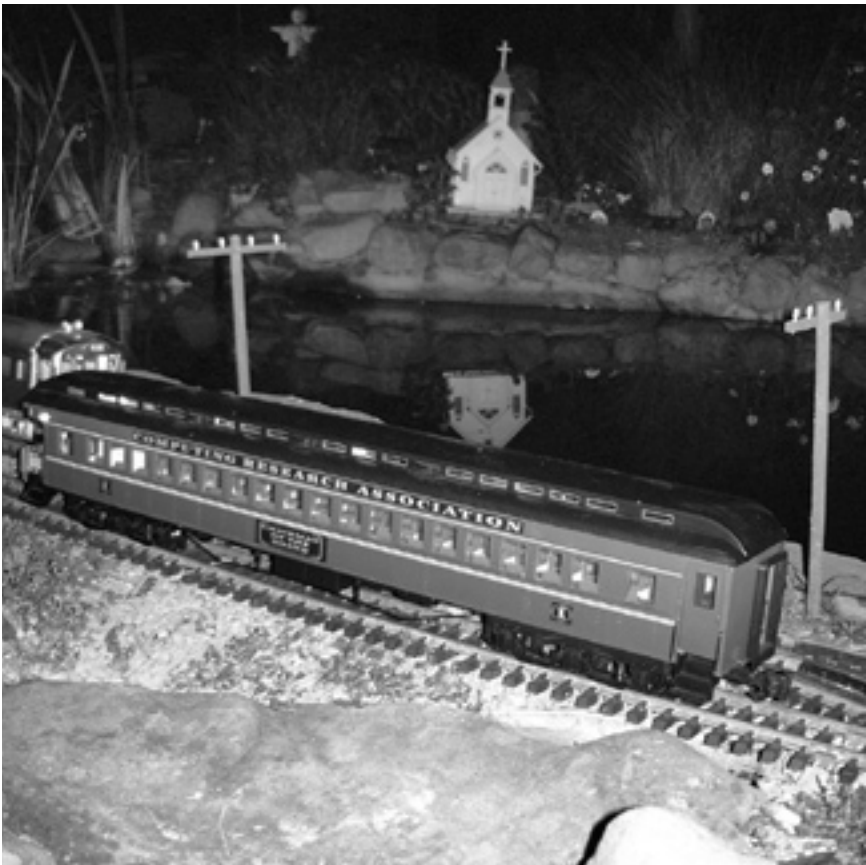


Photo credit: Jim Foley

Above is a photo of CRA’s gift to retiring Board Chair, Jim Foley, all hooked up and running on time in his back yard.

NSF/CISE Plans GENI Initiative from Page 1

learning with mobile information sources; establishing the role of location from spatial behavior of propagation to “place.”

- **Fundamental algorithms**, such as cooperative communications, scalable security, scalable compression, signal-processing techniques to support content analysis; studies on the tradeoff between communication versus computation and storage; models for mobility enhanced information dissemination.
- **Applications**, including multimedia signal processing; wireless communications; mobile and sensor devices; ad hoc networks.

To have significant impact, innovative research and design ideas must be implemented, deployed, and tested in realistic environments involving significant numbers of users and hosts. The initiative includes the deployment of a state-of-the-art, global experimental GENI Facility that will permit exploration and evaluation of new concepts and systems under realistic conditions. The GENI Facility will permit a range of researchers—including network engineers, policy analysts, protocol designers, system architects, and economic modelers—to contribute to and study innovative new capabilities for the global network of the future.

One approach for a GENI Facility would enable:

- Shared use through slicing and virtualization in time and space domains (i.e., where “slice” denotes the subset of resources bound to a particular experiment);
- Access to physical facilities through programmable platforms (e.g., via customized protocol stacks);
- Large-scale user participation by “user opt-in” and IP tunnels;
- Protection and collaboration among researchers by controlled isolation and connection among slices;
- A broad range of investigations using new classes of platforms and networks, a variety of access circuits and technologies, and global

control and management software; and

- Interconnection of independent facilities via federated design.

The GENI Facility will leverage the best ideas and capabilities from existing network test beds such as PlanetLab, ORBIT, WHYNET, Emulab, X-Bone, DETER and others. However, the GENI Facility will need to extend beyond these test beds to create an experimental infrastructure capable of supporting the ambitious research goals of the GENI Initiative.

The GENI Initiative builds on the extensive experience of the broad research community and two decades of NSF-supported networking research. A number of activities are part of the GENI planning process:

- CISE has supported numerous community workshops and is supporting ongoing planning efforts, including needs assessment and requirements for the GENI Facility.
- CISE will hold town meetings and continue to support future workshops to broaden community participation. CISE will work with industry, other US federal and local agencies, and international organizations to broaden participation in GENI beyond NSF and the US government.

While there is an obvious, compelling, and fairly specific objective of the initiative in the near- and mid-term, we hope that it can help raise the sights for research in CSE in general and serve as a milieu for exploring fundamental questions in most areas of our field. There is a lot of work to be done to bring this about and it will take the support and cooperation of all areas, not just networking researchers.

For additional information see www.nsf.gov/cise/gov or send comments to geni-info@nsf.gov.

Peter A. Freeman is Assistant Director of the National Science Foundation for CISE. ■

CRA-W Anita Borg Early Career Award
Nomination Deadline
February 15, 2006
For details see:
<http://www.cra.org/Activities/craw/borg>

CRA-W Distributed Mentor Program
Undergraduate Summer Research Internships
Application Deadline February 15, 2006
for Summer 2006
For details see:
<http://www.cra.org/Activities/craw/dmp/>

REMINDER TO CS&CE CHAIRS
(Ph.D-Granting Institutions)
Taulbee Surveys Were Due November 7

Please make certain your survey has been submitted to:
<http://www.cra.org/taulbee>

Questions?
Contact: survey@cra.org

COMPUTING RESEARCH NEWS

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Change of Address: Note that a change of address must include the old and new addresses with ZIP+4. Please include a street address or PO Box number.

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Ladner Recognized from Page 2

Director of DO-IT, have proposed the AccessComputing Alliance. The alliance is a partnership between the University of Washington, Gallaudet University, and several other universities. The goal of the alliance is to increase the number of persons with disabilities in the computing field.

With Professors Eve Riskin of the University of Washington and Sheila Hemami of Cornell University, Professor Ladner has developed a new project to design, implement, and evaluate new standards-compliant data compression methods that will allow ASL video, and other structured video, to be transmitted in real time over low bandwidth cell phone channels. This project recently received funding from NSF.

With the PAESMEM award, Professor Ladner will create a vertical mentoring workshop for blind students and professionals. The workshop will be a forum for science professionals to mentor graduate students; graduate students to mentor undergraduate students; and undergraduate students to mentor

high school students. Each group will learn about avenues to success from the group just “above” it. In addition, there will be an accessibility fair where everyone can learn about new and forthcoming accessibility technology for blind persons in science and technical fields. For example, they will learn about the newest Braille-based PDAs; new research about math to Braille translation; and the latest research in tactile graphics translation. To point out the impact of the PAESMEM on his career, Professor Ladner said recently, “When you get an award like this, it’s not an invitation to rest on your laurels. It’s actually a challenge to do more.”

Eve Riskin is Professor of Electrical Engineering and Director of the ADVANCE Center for Institutional Change at the University of Washington. Ed Lazowska is the Bill & Melinda Gates Chair in Computer Science & Engineering at the University of Washington. ■

Professional Opportunities

CRN Advertising Policy

See <http://www.cra.org/main/cra.jobshow.html>

American University of Beirut
Department of Computer Science
Faculty Positions

The Department of Computer Science at the American University of Beirut invites applications for teaching positions to begin September 15, 2006. A PhD in computer science or closely related fields is required. Candidates should have a demonstrated experience in teaching and research interests in the fields of Databases, Distributed Systems, Operating Systems, and Programming Languages. Strong applications from other fields might be considered.

Positions are normally at the Assistant Professor level. Appointments are for an initial period of three years. Visiting appointments and/or appointments at higher ranks may also be considered. The usual teaching load is not more than nine hours a week. Sabbatical visitors are welcome. The language of instruction is English. All advertised positions require a PhD by the time of appointment as well as experience in and a strong commitment to teaching and research. For more information please visit: <http://www.aub.edu.lb/~webfas/>.

To apply send cover letter, CV and arrange for three letters of reference to be sent to:
Dean, Faculty of Arts and Sciences
American University of Beirut
c/o New York Office
3 Dag Hammarskjold Plaza, 8th Floor
New York, NY 10017-2303 USA
OR
Dean
Faculty of Arts and Sciences
American University of Beirut
Beirut, Lebanon
Electronic submissions may be sent to as_dean@aub.edu.lb. All application materials and letters of reference should be received by January 6, 2006.

The American University of Beirut is an Affirmative Action, Equal Opportunity Employer.

Arizona State University
Arts, Media and Engineering
Tenure-Track Engineering Faculty

The Arts, Media and Engineering Program (AME) (<http://ame.asu.edu>) and the Department of Computer Science and Engineering (CSE) (<http://cse.asu.edu>) at Arizona State University are announcing an opening for a tenure-track assistant professor in Human Computer Interaction.

The goal of AME is transdisciplinary research and education in the integrated development of experiential media systems. The program has established its own graduate interdisciplinary curriculum which includes AME concentrations in Electrical Engineering, Computer Science and Engineering, Dance, Music, Theater and Visual Arts and is adding concentrations in Psychology, Bioengineering, Education and Kinesiology. AME has state of the art media facilities.

The successful candidate will take a leadership role in the human computer interaction activities of AME and collaborate with the multimedia and graphics groups at CSE. The individual hired will spearhead research in cutting-edge areas in HCI - novel interaction design, tangible media interfaces, collaborative interaction frameworks, gaming systems and cognitive models. Efforts of the AME HCI group merge with efforts of other AME groups, as part of a common research and applications agenda, for the creation of experiential media systems. The individual hired will contribute significantly to the development of the education and research mission of AME. The teaching assignment typically includes computer science courses and courses being developed in the arts, media and engineering program.

Required Qualifications: Ph.D. in Computer Science OR Electrical Engineering OR Computer Engineering OR closely related field and a scholarly record in human computer interaction with emphasis on media applications appropriate to rank.

Desired Qualifications: Interdisciplinary experience in research spanning Media, Arts and Engineering; teaching experience at the university level; leadership experience; evidence of funded research spanning the sciences and the arts; effective communication skills.

Application Deadline: December 15, 2005; if not filled, every FOUR weeks thereafter until search is closed. Anticipated start date is August 16, 2006.

Application Procedure: Send a letter of interest, CV, representative publications or multi-media demos of work and names, addresses and telephone numbers for three professional references to:

Chair, HCI Search Committee
AME/CSE, Box 878709
Tempe, Arizona 85287-8709
Background check required for employment.
For more information write to:
hci-search@asu.edu.
Arizona State University is an AA/EO employer.

Brown University
Department of Computer Science
Faculty Position

The Department of Computer Science at Brown University invites applications for two faculty positions starting no later than September 1, 2006, one in computer graphics and related areas, the other in machine learning. Positions are open to all ranks with priority given to junior applicants. Preference will be given to those candidates who best meet the teaching and research needs of the department, complement our current expertise, and fit well within our collegial culture.

Applications should be submitted online through the Computer Science Department's web page:
<http://www.cs.brown.edu>.
Review of applications will begin on December 1, 2005 and will continue until the position is filled. Candidates for an assistant-professor position must have completed all requirements for the doctoral degree by September 1, 2006. Initial appointments at the assistant-professor level will be for three years and are renewable.

Brown University is located in Providence, RI, on the shores of Narragansett Bay and 50 minutes from Boston. Providence is among the Northeast's most livable cities and is home to diverse intellectual, artistic and business communities. Inquiries may be addressed to faculty_search_2006@cs.brown.edu.

Brown University is an equal opportunity/affirmative action employer and strongly encourages applications from women and minorities.

California Polytechnic State University
Computer Science Department
Tenure-Track Faculty Positions

Full-time academic year tenure-track faculty positions available in the Computer Engineering Program at Cal Poly, San Luis Obispo, California, beginning September 2006 at Assistant/Associate levels.

Duties include teaching core undergraduate courses, and upper-division and master's level courses in a specialty area; performing research in a mainstream area of computer engineering; and service to the department, the university, and the community. Applicants from all mainstream areas of computer engineering are encouraged to apply. A doctorate in Computer Engineering, Computer Science, Electrical Engineering, Software Engineering, or a closely related field is required. Candidates must have a strong commitment to teaching excellence and laboratory-based instruction; dedication to continued professional development and scholarship; and a broad-based knowledge of computer engineering. Demonstrated ability in written and oral use of the English language is required. Rank and salary is commensurate with qualifications and experience. Computer Engineering is a joint program between the Departments of Computer Science and Electrical Engineering.

Cal Poly offers Bachelor's Degrees in Computer Engineering, Computer Science, Software Engineering and Electrical Engineering, and Master's Degrees in Computer Science and Electrical Engineering. Cal Poly emphasizes "learn by doing" which involves extensive lab work and projects in support of theoretical knowledge. The available computing facilities for instructional and faculty support are modern and extensive.

To apply, please visit:
www.calpolyjobs.org
and complete a required online faculty application, and apply to Requisition #100670. Review of applications will begin December 1, 2005; applications received after that date may be considered. For full consideration, candidates are required to attach to their online application: (1) resume, (2) cover letter, (3) statement of goals and plans for teaching and research. Three letters of reference and official transcripts are required for final consideration, and should be mailed to:
CPE Recruitment Committee
Computer Science Department
Cal Poly
San Luis Obispo, CA 93407-0354
Questions can be emailed to: cpe-recruit@csc.calpoly.edu. Please include requisition number(s) in all correspondence. For further information about the department and its programs, see www.csc.calpoly.edu and www.cpe.calpoly.edu.

Cal Poly is strongly committed to achieving excellence through cultural diversity. The university actively encourages applications and nominations of all qualified individuals.
EEO.

California Polytechnic State University
Computer Science Department
Tenure-Track Faculty Positions

Full-time academic year tenure-track faculty positions available in the Computer Science Department at Cal Poly, San Luis Obispo, California, beginning September 2006 at Assistant/Associate levels. Duties include teaching core undergraduate courses, and upper-division and master's level courses in a specialty area; performing research in a mainstream area of computer science; and service to the department, the university, and the community. Applicants from all mainstream areas of computer science are encouraged to apply. A doctorate in Computer Science or a closely related field is required.

Candidates must have a strong commitment to teaching excellence and laboratory-based instruction; dedication to continued professional development and scholarship; and a broad-based knowledge of computer science. Demonstrated ability in written and oral use of the English language is required. Rank and salary is commensurate with qualifications and experience.

Cal Poly offers BS and MS degrees in Computer Science, BS in Software Engineering, and a BS in Computer Engineering. Cal Poly emphasizes "learn by doing" which involves extensive lab work and projects in support of theoretical knowledge. The available computing facilities for instructional and faculty support are modern and extensive.

To apply, please visit:
www.calpolyjobs.org and complete a required online faculty application and apply to Requisition #100667. Review of applications will begin December 1, 2005; applications received after that date may be considered. For full consideration, candidates are required to attach to their online application: (1) resume, (2) cover letter, (3) statement of goals and plans for teaching and research. Three letters of reference and official transcripts are required for final consideration, and should be mailed to:
Computer Science Recruitment Committee
Computer Science Department
Cal Poly
San Luis Obispo, CA 93407-0354
Questions can be emailed to: csc-recruit@csc.calpoly.edu. Please include requisition number 100667 in all correspondence. For further information about the department and its programs, see www.csc.calpoly.edu.

Cal Poly is strongly committed to achieving excellence through cultural diversity. The university actively encourages applications and nominations of all qualified individuals.
EEO.

California Polytechnic State University

Computer Science Department
Tenure-Track Faculty Positions
Full-time academic year tenure-track faculty positions in the Software Engineering Program of the Computer Science Department at Cal Poly, San Luis Obispo, California, beginning September 2006 at Assistant/Associate levels.

Duties include teaching core undergraduate courses, and upper-division and master's level courses in a specialty area; performing research in a mainstream area of software engineering; and service to the department, the university, and the community. Applicants from all mainstream areas of software engineering are encouraged to apply. A doctorate in Software Engineering, Computer Science, or a closely related field is required. Candidates must have a strong commitment to teaching excellence and laboratory-based instruction; dedication to continued professional development and scholarship; a broad-based knowledge of software engineering, and appropriate industrial experience. Demonstrated ability in written and oral use of the English language is required. Rank and salary is commensurate with qualifications and experience.

Cal Poly offers a BS in Software Engineering, BS and MS degrees in Computer Science, and a BS in Computer Engineering. Cal Poly emphasizes "learn by doing" which involves extensive lab work and projects in support of theoretical knowledge. The available computing facilities for instructional and faculty support are modern and extensive.

To apply, please visit:
www.calpolyjobs.org
and complete a required online faculty application and apply to requisition #100668. Review of applications will begin December 1, 2005; applications received after that date may be considered. For full consideration, candidates are required to attach to their online application: (1) resume, (2) cover letter, (3) statement of goals and plans for teaching and research. Three letters of reference and official transcripts are required for final consideration, and should be mailed to:
Software Engineering Recruitment Committee
Computer Science Department
Cal Poly
San Luis Obispo, CA 93407
Questions can be emailed to: se-recruit@csc.calpoly.edu. Please include requisition #100668 in all correspondence. For further information about the department and its programs, see www.csc.calpoly.edu.
Cal Poly is strongly committed to achieving excellence through cultural diversity. The university actively encourages applications and nominations of all qualified individuals.
EEO.

Caltech Center
Mathematics of Information
Postdoctoral Fellowship

Caltech's Center for the Mathematics of Information (CMI) announces openings in the CMI Postdoctoral Fellowship Program, starting in fall 2006. The CMI is dedicated to fundamental mathematical research with an eye to the roles of information and computation as resources throughout science and engineering.

Areas of interest include algorithms, complexity, applied combinatorics, applied probability, statistics, information and coding theory, geometry processing, multiresolution methods, control and optimization. Please apply and have three reference letters sent directly as instructed at:

<http://www.ist.caltech.edu/joinus/positions.html>.
All materials are due by January 6, 2006. Positions are contingent upon completion of the PhD.

Caltech is an affirmative action/equal opportunity employer; women, minorities, veterans, and disabled persons are encouraged to apply.

Carnegie Mellon University
School of Computer Science
Teaching-Track position

The School of Computer Science at Carnegie Mellon University invites applications for a teaching-track position beginning in the fall term of 2006. This is a career-oriented, renewable appointment that is responsible for, and committed to, developing and delivering excellent first and second year courses in computer science. In particular, we seek candidates with proven records of quality teaching in data structures, algorithms, and introductory programming courses.

The person filling this position will become part of a group of 12 teaching-track faculty,

Professional Opportunities

with dedicated administrative and technical support staff. The facilities include state-of-the-art computer classrooms and infrastructure for course delivery.

Applicants for the position must have an M.S. or Ph.D. in Computer Science or a related field, and demonstrated excellence in teaching Computer Science courses. Applicants seeking a tenure-track position at a research university are not a good match for the needs of this position. Teaching-track appointments are typically at the rank of Lecturer, with the possibility of promotion to the ranks of Associate Teaching Professor and Teaching Professor. None of these teaching-track ranks are tenured.

For information on the position and how to apply, see:

<http://www.intro.cs.cmu.edu/position.html>. Review of applications will begin on November 1, 2005, and will continue until the position is filled. Applicants are strongly encouraged to submit all materials by January 15, 2006, to ensure full consideration.

Send materials, letters, and questions to: Scott McElfresh. Email: scottm@cs.cmu.edu
Paper:
Scott McElfresh
Carnegie Mellon University
Computer Science Department
5215 Wean Hall
Pittsburgh, PA 15213

Carnegie Mellon is an affirmative action/equal opportunity employer and we invite and encourage applications from women and minorities.

Clemson University Department of Computer Science *Tenure-Track Position*

The Department of Computer Science at Clemson University is seeking candidates in applied computing and information systems for a tenure-track faculty position at the rank of Assistant Professor. The ideal candidate will have the background and interests suitable for research in the automotive domain and will be able to leverage the opportunities for collaboration at the recently established International Center for Automotive Research (ICAR) at Clemson.

The CS department, housed in a new building, has 23 faculty members, about 500 undergraduate majors, and over 100 graduate students. Current faculty interests include algorithms, graphics and visualization, networking, programming languages, and software engineering. The department offers B.A., B.S., M.S., and Ph.D. degrees in Computer Science, B.S. degree in Computer and Information Science, and interdisciplinary programs in E-Commerce and Digital Production Arts.

Clemson is the land grant university of South Carolina and has an enrollment of approximately 17,000. TIME magazine named Clemson the Public College of the Year for year 2001. U.S. News & World Report ranks Clemson 34th nationally among public universities in 2005. Clemson University is located in Clemson, a small college town on beautiful Lake Hartwell at the foothills of the Blue Ridge Mountains. The area offers numerous outdoor activities. For additional details, please see www.cs.clemson.edu.

Applicants should have a Ph.D. in Computer Science or a related discipline. Electronic applications, including names of three references and a research statement explaining relevance to the search focus, should be sent to search@cs.clemson.edu as a single PDF attachment. If unavoidable, hard copies may be mailed to:

Faculty Search Committee
Department of Computer Science
Clemson University
Clemson, SC 29634-0974

We will begin accepting and reviewing applications immediately. Applications received by January 15 will receive full consideration. If the position is not filled, the search will continue until May 1, 2006.

Clemson University is an Affirmative Action/Equal Opportunity Employer.

Colby College Computer Science Department *Tenure-Track Associate or Full Professor*

Full-time tenure-track position, assoc/full professor, starting September 2006. Review of applications will begin January 3, 2006.

For more information, see: <http://www.cs.colby.edu/jobs/>.

College of William & Mary Computer Science Department *Faculty Positions*

Applications are invited for two tenure-track faculty positions in Computer Science for the Fall 2006, one at the assistant professor level and one at any rank. For the latter position, we are especially interested in hiring at a senior level.

Applicants must hold a Ph.D. in computer science or a related field. Appointment at the assistant professor level requires that the applicant hold a Ph.D. at the time of appointment and demonstrate a strong research record and high interest in teaching. Appointment at a senior level requires a documented record of sustained excellence in teaching and demonstrated research leadership at the national/international level. We are primarily interested in individuals with research expertise in the following areas: computational sciences, computer systems, data mining and information management, graphics and visualization, programming languages and compilers, and security and cryptography. However, strong applicants from all other areas of computer science will be considered.

The College of William and Mary, consistently ranked in the elite group of the Best National Universities—Doctoral by U.S. News and World Report, has committed to a multi-year effort to further strengthen its Computer Science research program. The department currently consists of fifteen faculty members who support B.S., M.S., and Ph.D. programs. More information about the department and the University can be obtained at <http://www.cs.wm.edu>.

Applicants should submit a resume, statements of research and teaching purposes, the names of at least three references and any supporting documents to:

Faculty Search Committee
Department of Computer Science
College of William & Mary
P.O. Box 8795
Williamsburg, VA 23187-8795

Review will begin in December, 2005 and continue until positions are filled.

Questions and application materials can be e-mailed to search@cs.wm.edu.

The College is an EEO/AA employer.

Colorado State University Department of Computer Science *Tenure-Track Faculty*

The Department of Computer Science at Colorado State University solicits applications for a tenure-track faculty position preferably at the level of assistant professor, beginning fall 2006. Applicants must have a Ph.D. in computer science or a related field, and demonstrate potential for excellence in research and teaching.

The department has over 275 undergraduate majors and 150 graduate students in Master's and Ph.D. programs. The department has 18 tenure-track faculty with strong research programs in artificial intelligence, computer vision, distributed computation, embedded systems, networks, security, and software engineering. We encourage applicants in bioinformatics, embedded systems, and networks.

Colorado State University, with an enrollment of 25,000 students, is located in Fort Collins, at the base of the Rocky Mountains, 65 miles north of Denver. More information about the department can be obtained from the department home page at <http://www.cs.colostate.edu>.

Applications must be received by January 9, 2006. Applicants must upload their PDF format curriculum vitae, research and teaching statements, and a list with names, postal and email addresses, and telephone numbers of three references at:

<http://www.natsci.colostate.edu/searches/compsci/>.
Contact information is available at this web page.

Anticipated start date is August 16, 2006.

When semi-finalists are identified, their files will be open to all faculty in the Department of Computer Science.

CSU is an EO/AA employer.

Cornell University School of Electrical and Computer Engineering *Faculty Positions*

Cornell University's School of Electrical and Computer Engineering is seeking applications for faculty positions at all ranks in the areas of circuits and computer engineering, although our search is not restricted to these areas. Applicants must hold a PhD degree, have demonstrated excellence in research and the ability to develop an independent research program, and have a strong interest in teaching

at both the undergraduate and graduate levels.

We are particularly interested in outstanding candidates who can drive new research initiatives by supplementing our existing strengths in these areas. Areas of interest in circuits include analog design; digital design methodologies for performance, power, and reliability; CAD, including heterogeneous system integration; and circuits for MEMS, medical, sensor, or wireless systems. Areas of interest in computer engineering include dependable and secure computer systems; network processors and interconnection networks; embedded systems including real time systems; synthesis of application specific processors; and I/O systems, including massive storage.

A letter of application with professional resume, statement of research and teaching goals, and the names and contact information of at least four references should be submitted via the school's on-line application system at: <http://fast.ece.cornell.edu>.

Applications received by January 15, 2006 will be assured full consideration.

Cornell's College of Engineering is an equal opportunity/affirmative action employer and welcomes nominations of, and applications from, women and underrepresented minorities.

Duke University Department of Computer Science *Faculty Positions*

We invite applications and nominations for two faculty positions in the Department of Computer Science at Duke University, to start August 2006, in the following areas:

- Artificial intelligence, including computer vision
- Computational biology
- Systems and architecture, including databases and security

One of the positions is tenure-track or tenured at any rank, and the other position is tenure-track at the assistant professor level.

A successful candidate must have a solid disciplinary foundation and demonstrate promise of outstanding scholarship in every respect, including research and teaching. Please refer to www.cs.duke.edu for information about the department.

Applications should be submitted online at www.cs.duke.edu/facsearch. They should include a curriculum vitae, a list of publications, and copies of the most important publications. A Ph.D. in computer science or related area is required.

Assistant Professor applicants should arrange for three to five letters of reference to be sent preferably via email (facsearch@cs.duke.edu) to the Faculty Search Chair.

Senior candidates should provide the names and contact information of three to five potential references. To guarantee full consideration, applications and letters of reference should be received by January 16, 2006.

Duke University is an affirmative action, equal opportunity employer.

Eastern Connecticut State University Department of Mathematics & Computer Science *Assistant/Associate/Full Professor*

Eastern Connecticut State University invites applications for one tenure-track position in computer science starting Fall 2006. A Ph.D. degree in computer science or a closely related field is required by the appointment date.

Successful candidates must demonstrate excellent teaching ability and strong evidence of research and publications. Research background in all areas of computer science will be considered. Submit application letter, vitae, graduate transcripts, statement of teaching philosophy and research interest, and three current letters of recommendation to:

Dr. Huan-yu Tu, Search Chair
Webb Hall 323
Computer Science
Eastern Connecticut State University
Willimantic, CT 06226

Emory University Department of Mathematics and Computer Science *Tenured or Tenure-Track Position*

The Emory University Department of Mathematics and Computer Science invites applications for an anticipated tenure track Assistant Professorship, or a tenured appointment at the rank of Associate or Full

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Computer Science at TTI-Chicago Faculty Positions at All Levels



Toyota Technological Institute at Chicago (TTI-C) is a recently established institute of computer science located on the University of Chicago campus. Applications are being accepted for faculty positions at all ranks. In addition to traditional faculty positions, TTI-C is also seeking limited term faculty positions. The Institute is expected to grow to a steady state of 12 traditional faculty (tenure and tenure track) and 8 limited term faculty, by 2010.

TTI-C is supported by the earnings on a fund of \$105 million. \$43 million of this fund belongs to TTI-C as an endowment and \$62 million is owned by TTI in Nagoya, Japan but earmarked for use by TTI-C. We are dedicated to education of doctoral and master's students, and to basic research in fundamental areas of computer science. Faculty members are expected to receive continuing research grants and will have a teaching load of one course per year in a quarter system. TTI-C has close ties with the Computer Science Dept. of the University of Chicago.

Faculty is particularly sought with research programs in artificial intelligence, theoretical computer science, programming languages, verification, scientific computing, and networking.

For all positions we require a Ph.D. Degree or Ph.D. candidacy, with the degree conferred prior to date of hire.

Submit your application electronically at:
<http://www.tti-c.org/apps/faculty.htm>

Toyota Technological Institute at Chicago is an Equal Opportunity Employer

Professional Opportunities

Professor, starting Fall 2006. Applicants with research backgrounds in data and informatics, broadly defined, are of particular interest. Exceptional candidates in other areas of computer science related to departmental strengths and development plans are also encouraged to apply. In data-related areas, preference will be given to candidates with research interests in database systems, data mining, health informatics, scientific and biological databases, bioinformatics, and digital libraries.

Applicants must have a PhD in computer science or a closely related field, with demonstrated promise in research and a strong commitment to teaching in a liberal arts environment. Senior candidates must have an established research program.

Emory University is a nationally ranked, highly-selective research university located on a 600 acre campus in suburban Atlanta. Emory is committed to the ongoing development of computer science and scientific computing, in terms of faculty, graduate programs, infrastructure, and interdisciplinary collaborative endeavors.

A letter of application accompanied by a CV, research and teaching statements, and three letters of recommendation (directly from the recommenders) should be sent by email to cssearch@mathcs.emory.edu or by mail to:

Chair, Faculty Search Committee
Department of Mathematics and Computer Science
Emory University
400 Dowman Dr #W-401
Atlanta, GA 30322 USA

Screening of applications will begin on January 1, 2006, with initial interviews planned for early-February and continuing until positions are filled.

Interested candidates are encouraged to contact the search committee chair at cssearch@mathcs.emory.edu or one of the faculty listed in the detailed version of this announcement at <http://www.mathcs.emory.edu/News/Ops/>.

Emory University is an Equal Opportunity/Affirmative Action employer.

Hobart and William Smith Colleges

Department of Mathematics and Computer Science

Tenure-Track Faculty Position

The Department of Mathematics and Computer Science at Hobart and William Smith Colleges invites applications for a tenure-track faculty position in computer science to begin Fall 2006. Desirable specialties include operating systems and networking, but other areas in computer science will be considered. Mathematicians with demonstrated expertise in computer science will also be considered. Duties include teaching all levels of undergraduate computer science and participating in the Colleges' interdisciplinary general curriculum.

Experience with and/or interest in working in a multicultural environment are highly desirable. A strong commitment to teaching and promise of continued scholarly activity are required. The teaching load is five courses over two semesters. Hobart College for men and William Smith College for women are coordinate, four year, liberal arts colleges committed to teaching and interdisciplinary study. The Colleges have a combined enrollment of 1800 students.

For a complete position description see: <http://campus.hws.edu/ADM/hr/Employment/Faculty.asp>

To learn more about the department, visit: <http://math.hws.edu/>.

Hobart and William Smith Colleges are committed to attracting and supporting a faculty of women and men that fully represent the racial, ethnic, and cultural diversity of the nation, and actively seek applications from under-represented groups. The Colleges do not discriminate on the basis of race, color, religion, sex, marital status, national origin, age, disability, veteran's status, sexual orientation, or any other protected status.

Applicants should expect to have completed their Ph.D. in Computer Science or related field by Fall 2006. Send resume, statement of research interests and plans, description of teaching philosophy, three letters of recommendation (at least one including comments on teaching), and undergraduate and graduate transcripts (photocopies acceptable) to:

Professor John Vaughn
Box 4085
Hobart and William Smith Colleges
Geneva, NY 14456
E-mail: vaughn@hws.edu

Evaluation of applications begins January 9, 2006 and will continue until the position is filled.

Illinois Institute of Technology

Department of Computer Science

Chair

Applications are invited for the position of Chair of the Department of Computer Science, beginning Fall 2006. The Chair's primary mission is to lead the department to national prominence, while providing strategic vision and decisive leadership in research and education, as well as fostering mutually productive interactions with government and industry. More information on CS at IIT may be found at www.cs.iit.edu.

Qualifications for the Chair position include a PhD, an international reputation in Computer Science, excellent communication and administrative skills, and a desire to lead a growing and vibrant department to become a major center for CS research.

Applications, nominations and enquiries should be sent (preferably electronically) to:

Professor Fred J. Hickernell, Chair
CS Search Committee
Illinois Institute of Technology
Bldg. E1, Room 208
10 W. 32nd St.
Chicago, IL 60616
cschairsearch@math.iit.edu

An application should include a cover letter, curriculum vitae, and a statement of the candidate's research, teaching and leadership philosophies. Also, the candidate should arrange for at least three confidential reference letters to be sent to the same address.

Applications will be reviewed continuously until the position is filled.

IIT is an equal opportunity, affirmative action employer.

Johns Hopkins University

Department of Computer Science

Tenure-Track Position

The Department of Computer Science at Johns Hopkins University is seeking applications for a tenure-track faculty position. Our primary interest is hiring at the Assistant Professor level, but candidates of all ranks will be considered. All areas will be considered, but candidates with a research agenda in applied algorithms, bioinformatics, or graphics will receive special attention, as will candidates that build on existing strengths.

All applicants must have a Ph.D. in computer science or a related field and are expected to show evidence of an ability to establish a strong, independent, multidisciplinary, internationally recognized research program. Commitment to quality teaching at the undergraduate and graduate levels will be required of all candidates considered. The department webpage at <http://www.cs.jhu.edu> provides information about the department, including links to research laboratories and centers.

Applicants should apply using the online application which can be accessed from: <http://www.cs.jhu.edu/apply>.

(for full consideration, before January 15 2006). Questions should be directed to fssearch@cs.jhu.edu. The Department is committed to building a diverse educational environment; women and minorities are strongly encouraged to apply.

The Johns Hopkins University is an EEO/AA employer.

Kansas State University

Department of Computing and Information Sciences

Faculty Position

The department of Computing and Information Sciences at Kansas State University invites applications for a tenure-track position beginning in Fall 2006. Preference will be given to candidates in the areas of Bioinformatics data mining, data management, and data integration. Applicants must be committed to both teaching and research. Applicants should have a PhD degree in computer science with demonstrated expertise in Bioinformatics; salary will be commensurate with qualifications. Applications must include descriptions of teaching and research interests along with copies of representative publications.

Kansas State University is committed to the growth and excellence of the CIS department. The department offers a stimulating environment for research and teaching, and has several ongoing collaborative projects involving researchers in different areas of computer science as well as other engineering and science departments. The department has a faculty of nineteen, more than 100 graduate students, 300 undergraduate students, and offers BS, MS, MSE, and PhD degrees. Computing facilities include a large network of servers, workstations and PCs with more than 300 machines and a Beowulf cluster with 100+ processors. The department building has



BROOKLYN COLLEGE

The City University of New York

ASSISTANT PROFESSOR - APPLIED COMPUTATION

As part of an interdisciplinary science initiative, Brooklyn College seeks a researcher to teach graduate and undergraduate courses, as well as establish and maintain an externally funded research program that applies computational methods to the investigation of scientific issues and problems of current interest. The research may be in biology, chemistry, geology, physics, or any combination thereof. Interdisciplinary research is especially desirable.

Doctorate in one of the following fields: biology, chemistry, computer science, geology, or physics. A strong record of research in computational science is essential. A history of obtaining external grant support highly desirable.

Salary is commensurate with qualifications and experience. Appointment includes a complete benefits package. Please send Curriculum Vitae, three (3) letters of recommendation and writing sample(s) or research paper(s) to: **Assistant Vice President for Human Resource Services, Brooklyn College, 2900 Bedford Avenue, Brooklyn, New York 11210-2889.** Review of applications will continue until position is filled.

For additional information please see <http://www.brooklyn.cuny.edu>.

An AA/EEO/ADA/IRCA Employer.

a wireless network and state-of-the-art media equipped classrooms. The department hosts several laboratories for Embedded systems, Software analysis, Robotics, computational engineering and science, and Data-mining. Details of the CIS Department can be found at the URL <http://www.cis.ksu.edu/>. Details about Bioinformatics research at K-State can be found at <http://www.cis.ksu.edu/bioinformatics>.

Please send applications to:

Chair of the Recruiting Committee
Department of Computing and Information Sciences
234 Nichols Hall
Kansas State University
Manhattan, KS 66506
Email: Recruiting@cis.ksu.edu

Review of applications will commence November 1 and continue until the position is filled.

Kansas State University is an Equal Opportunity Employer and actively seeks diversity among its employees. Paid for by Kansas State University.

Kansas State University

Department of Computing and Information Sciences

Faculty Position

The department of Computing and Information Sciences at Kansas State University invites applications for a tenure-track position beginning in Fall 2006 from candidates working in the area of security. Preference will be given to candidates who will compliment the existing areas of strengths of the department which include static analysis and verification of systems, language-based security, distributed systems, model-driven computing, sensor networks and multi-agent systems. Applicants must be committed to both teaching and research. Applicants should have a PhD degree in computer science with demonstrated expertise in security; salary will be commensurate with qualifications. Applications must include descriptions of teaching and research interests along with copies of representative publications.

Kansas State University is committed to the growth and excellence of the CIS department. The department offers a stimulating environment for research and teaching, and has several ongoing collaborative projects involving researchers in different areas of computer science as well as other engineering and science departments. The department has a faculty of nineteen, more than 100 graduate students, and 300 undergraduate students and offers BS, MS, MSE, and PhD degrees. Computing facilities include a large network of servers, workstations and PCs with more than 300 machines and a Beowulf cluster with 100+ processors. The department building has a wireless network and state-of-the-art media-equipped classrooms. The department hosts several laboratories for embedded systems, software analysis, robotics, computational engineering and science, and data-mining. Details of the CIS Department can be found at the URL <http://www.cis.ksu.edu/>.

Please send applications to:

Chair of the Recruiting Committee
Department of Computing and Information Sciences
234 Nichols Hall
Kansas State University
Manhattan, KS 66506
Email: Recruiting@cis.ksu.edu

Review of applications will commence November 1 and continue until the position is filled.

Kansas State University is an Equal Opportunity Employer and actively seeks diversity among its employees. Paid for by Kansas State University.

Kent State University

Department of Computer Science

Assistant Professor

The Department of Computer Science, pending final budget approval, seeks candidates for a tenure-track faculty position at the assistant professor level beginning Fall 2006, in the areas of visualization or graphics to support a strong multidisciplinary collaboration between Computer Science and the physical and biological sciences. Applications from outstanding candidates in other related areas of Computer Science will also be considered. Applicants must have a Ph.D. degree in Computer Science or a related field. The position will include appropriate startup funds for the establishment of a laboratory. Successful candidates will be expected to develop a high-quality and externally-funded research program and exhibit a commitment to excellence in graduate and undergraduate education.

The Department of Computer Science offers the B.S., M.A., M.S. and Ph.D. degrees, and has 18 faculty, over 150 graduate students and approximately 450 undergraduate students. The Department has well-equipped research and teaching laboratories and access to resources including computational and visualization clusters, access grid nodes, stereo visualization facilities, and resources at the Ohio Supercomputer Center via a new high-bandwidth Ohio Third Frontier network.

The application should include: (i) a cover letter; (ii) a curriculum vitae; (iii) a summary of research experience and plans for future research; (iv) a statement of teaching experience, philosophy and interests; (v) and the names and addresses of at least three references. Applicants should also arrange for letters of recommendation to be sent. Application and letters of recommendation may be sent electronically, preferably in PDF or MS Word to:

facsearch@cs.kent.edu
or by mail to:
Faculty Search
Department of Computer Science
Kent State University
P.O. Box 5190
Kent, Ohio 44242-0001

Review of applications will begin on January 15, 2005 and continue until the position is filled.

Kent State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. All documents submitted to Kent State University for employment opportunities are public records and subject to disclosure under the Ohio Public Records Law.

Lehigh University

Department of Computer Science and Engineering

Faculty Opening

Applications are invited for a tenure-track position at the Assistant Professor level in the Computer Science and Engineering Department (www.cse.lehigh.edu) of Lehigh University starting in August 2006. Effective teaching at both the undergraduate and graduate level, along with a demonstrated potential for research, are essential prerequisites. Successful applicants will hold a Ph.D. in Computer Science, Computer Engineering, or a closely related field.

Professional Opportunities

Outstanding candidates in all areas of computer science will be considered.

The department's highest priorities for this position are in the areas of graphics, human-computer interfaces, scientific/data visualization, animation, and real-time graphics. The department participates in several interdisciplinary programs that provide opportunities for sponsored research, including a Design Arts Program and a state-of-the-art graphics-intensive Financial Services Lab that simulates a Wall Street trading environment with live financial data feeds.

A recently established undergraduate program in Bioengineering, along with a new graduate program planned for within the next two years, combined with growing faculty interest in Bioinformatics, also generates massive data sets needing breakthroughs in visualization. In addition to offering B.A., B.S., M.S., and Ph.D. degrees in Computer Science and Computer Engineering, the department has instituted a Computer Science and Business program jointly with the College of Business and Economics.

Lehigh is ranked among the top 32 national universities with undergraduate and graduate programs in computer science and engineering. It is a private research university, rated "most selective" by both Barron's and Peterson's guides.

Its location in a beautiful sylvan setting in Bethlehem, Pennsylvania, 80 miles west of New York City and 50 miles north of Philadelphia, offers an appealing mix of urban and rural lifestyles. Please email your application to:

cse-search@cse.lehigh.edu including cover letter, vitae, and both teaching and research statements.

In addition to providing us names and addresses of at least three references, please ask them to send letters by email immediately. Applications will be evaluated on a rolling basis.

Lehigh University is an affirmative action and equal employment opportunity employer, and is committed to recruiting and retaining women and minorities.

Louisiana State University Department of Computer Science Tenure-Track Position

The Department of Computer Science at Louisiana State University (<http://www.csc.lsu.edu/>) seeks candidates for an anticipated tenure-track position at Assistant Professor/Associate Professor level beginning August 2006. The successful candidate will be expected to teach core courses at the undergraduate and graduate levels, in addition to establishing a significant and highly visible research program.

We invite applications from outstanding candidates in all areas of Computer Science. Preference will be given to the candidates who perform interdisciplinary research, and have teaching/research experience in the areas of Computer Architecture, Theory of Computing, and Software Engineering.

Faculty activities are expected to support and to be integrated into the complimentary goals of the Department of Computer Science and the Center for Computation & Technology (CCT; <http://www.cct.lsu.edu/>). The opportunities exist to collaborate with other major efforts at LSU such as the Louisiana Optical Network Initiative (LONI; <http://www.loni.org>), LSU-Center for Advanced Microstructures and Devices (CAMD; <http://camd.lsu.edu/>) and the NSF Laser Interferometer Gravitational-Wave Observatory (LIGO; <http://www.ligo-la.caltech.edu/>).

LONI, funded by a \$40M commitment from the state, will provide a 40 Gbps connection between new large scale computing resources deployed at Louisiana Research institutes. LSU is also connected to the National Lambda Rail, providing national and international high speed connectivity.

Applicants should have a Ph.D. in Computer Science or in a closely related field, and demonstrated strength in scholarly research. Applicants should submit a letter of intent describing teaching and research interests along with the curriculum vitae and the names and addresses of three references to:

Chair, Faculty Search Committee
Department of Computer Science
Louisiana State University
Ref Log #0465
Baton Rouge, LA 70803
E-mail: search@csc.lsu.edu
Applications should be received by January 16, 2006 and applications will be accepted until position is filled. Louisiana State University is an Equal Opportunity/Affirmative Action employer and encourages women and minorities to apply. For further information, send mail to search@csc.lsu.edu.

Massachusetts Institute of Technology Department of Electrical Engineering and Computer Science Faculty Positions

The Department of Electrical Engineering and Computer Science (EECS) seeks candidates for faculty positions starting in September 2006. We anticipate faculty openings for individuals who are completing, or who have recently completed, a doctorate. In special cases, a senior faculty appointment may be possible. Faculty duties include teaching at the graduate and undergraduate levels, research, and supervision of student research. We will consider candidates with backgrounds and interests in all areas of electrical engineering and computer science.

Candidates must register with the EECS search website at <https://eecs-search.eecs.mit.edu>, and must submit application materials electronically to this website. Candidate applications should include a description of professional interests and goals in both teaching and research. Each application should include a curriculum vitae and the names and addresses of three or more individuals who will provide letters of recommendation. Letter writers should submit their letters directly to MIT, preferably on the website or by mailing to the address below. Please submit complete application by January 15, 2006.

Send all materials not submitted on the website to:

Professor W. Eric L. Grimson, Acting
Department Head
Electrical Engineering and Computer Science
Massachusetts Institute of Technology
Room 38-427
77 Massachusetts Avenue
Cambridge, MA 02139
M.I.T. is an equal opportunity/affirmative action employer.

McDaniel College Computer Science Department Tenure-Track Position

McDaniel College invites applications for a tenure-track position of Assistant/Associate Professor in Computer Science, to begin Fall, 2006. Ph.D. in computer science required. Prior teaching experience preferred.

Send a letter of application, cv, transcripts, and three letters of recommendation to:

Dr. Robert Boner
Department of Mathematics and Computer Science
McDaniel College
Westminster, MD 21157

Review of applications will begin immediately and continue until the position is filled.

See full ad at www.mcdaniel.edu/hr/facultyjoblistings.shtml.

Miami University Computer Science and Systems Analysis Department Assistant/Associate Professor

The Department of Computer Science and Systems Analysis (CSA) seeks applicants for faculty positions beginning fall 2006. We are seeking innovative and energetic teachers and scholars. Responsibilities are to teach undergraduate and graduate courses, perform service, and maintain an active research program. We are primarily seeking applicants to begin at the rank of assistant professor, but will consider applicants qualified for associate professor. All specialties within the field of computer science or systems analysis will be considered. A doctorate in computer science or related field is expected. ABDs will be considered, but the doctorate must be completed by the time of the appointment August 2006.

Miami University, located 35 miles north of Cincinnati, has 14,000 undergraduate and 1,800 graduate students. Miami, one of the eight original "Public Ivy" schools, is consistently recognized as one of the nation's premiere public universities by such publications as *The Fiske Guide to Colleges*, the *Kaplan-Newsweek College Catalog*, and *US News & World Report*. The School of Engineering and Applied Science ranks among the nation's top engineering programs among schools that do not offer a Ph.D. in engineering.

Please send cover letter, curriculum vitae, visa status (if applicable), a philosophy of teaching, and a statement of research to:
CSA Search Committee
Computer Science & Systems Analysis Department
Miami University
Oxford, OH 45056
Phone: 513-529-9269, Fax: 513-529-1524
Email: CSsearch@MUOhio.edu

Three letters of reference should also be sent to the above address.

Electronic submissions are encouraged. Screening of applications will begin October 2005 and continue until the positions are filled.

We encourage applications from a broad spectrum of individuals, including women and members of ethnic minorities. Miami University is an affirmative action/equal opportunity employer.

Michigan Technological University Department of Computer Science Tenure-Track Faculty Position(s)

Applications are invited for one or more tenure-track faculty positions beginning August 2006. Candidates are expected to have a Ph.D. in computer science, computational science and engineering, or a closely related field. Candidates are expected to demonstrate potential for excellence in teaching and research. Of particular interest are candidates with research in areas of software engineering, security, and systems; but all areas will be considered. Individuals with ongoing research support may be considered for research faculty positions.

Michigan Technological University, designated as one of four Michigan research universities, has approximately 6,500 students and 400 faculty. The Department has 16 faculty members and offers B.S., M.S. and Ph.D. degrees to excellent students. We have over 300 undergraduates and approximately 25 M.S. and 25 Ph.D students. Faculty research interests include artificial intelligence, computer architecture, computer science education, compilers, distributed systems, graphics, human computer interaction, networks, parallel computing, security, software engineering, and visualization. In addition, the Department has a central role in the interdisciplinary Computational Science and Engineering Ph.D. which fosters research and teaching in the application of computer science to engineering and scientific problems.

In January 2005, the Department moved into the new Rekhi Computer Science Hall. Rekhi Hall includes ample space for graduate student and faculty offices, research and instructional labs, and classrooms. The facility also houses the Computational Science and Engineering Research Center, providing access to high performance computing platforms. Internet 2 access is available.

Michigan Technological University is located in Michigan's scenic Upper Peninsula. Surrounded by Lake Superior and nearby forests, the community 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, email address, and a list of at least three references to:

Linda M. Ott, Chair
Department of Computer Science
Michigan Technological University
Houghton, Michigan 49931
linda@mtu.edu
Phone: 906-487-2209
For more information see our web page <http://cs.mtu.edu/>.

Michigan Technological University is an equal opportunity educational institution/equal opportunity employer.

Montclair State University Computer Scientist in Computational Science Tenure-Track Position

The Department of Computer Science at Montclair State University invites applications for a tenure-track Associate Professor in computational science to start Fall 2006.

Position responsibilities include the ability to teach the undergraduate computer science curriculum and at least three graduate level computer science courses, and to establish a vigorous, extramurally funded research program involving undergraduate and graduate students. The candidate will have expertise in data mining, image processing, and/or parallel computing related to scientific, mathematical, and/or engineering phenomena. The successful candidate will also be able to support and supervise students at the computer science graduate level and lead a team in the development of graduate degrees in computational science. A Ph.D. prior to 1 September 2001 in computer science or a closely related field that includes computer science theory course work is required.

Additional information about the department is available at <http://cs.montclair.edu>. Applicants should send a cover

letter, curriculum vitae, three letters of recommendation and a statement of professional goals, research interests and teaching philosophy to:

Dr. Dorothy Deremer, Chairperson
Department of Computer Science
Montclair State University
Montclair, NJ 07042 U.S.A.

Electronic copies of applications are not reviewed. Review of applications will begin 15 October 2005 and continue until the position is filled.

Montclair State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, and individuals with disabilities are encouraged to apply.

Montclair State University Computer Scientist in Science Informatics Tenure-Track Position

The Department of Computer Science at Montclair State University invites applications for a tenure-track Assistant or Associate Professor in science informatics to start fall 2006. Position responsibilities include the ability to teach undergraduate computer science and interdisciplinary science informatics courses, and at least two graduate level science informatics related courses, and to establish a vigorous, extramurally funded research program involving undergraduate and graduate students in science informatics.

The candidate will have expertise in the interaction of computer science with another science or mathematics discipline. The successful candidate will also be able to support and supervise students at the science informatics undergraduate level and lead an interdisciplinary team to develop and support science informatics programs. A Ph.D. prior to 1 September 2003 in computer science or a related science or mathematics field that includes computer science theory course work is required. Additional information about the department is available at <http://cs.montclair.edu> and about science informatics at http://www.csam.montclair.edu/sci_info.

Applicants should send a cover letter, curriculum vitae, three letters of recommendation and a statement of professional goals, research interests and teaching philosophy to:

Dr. Dorothy Deremer, Chairperson
Department of Computer Science
Montclair State University
Montclair, NJ 07042

Electronic copies of applications are not reviewed. Review of applications will begin 15 October 2005 and continue until the position is filled.

Montclair State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, and individuals with disabilities are encouraged to apply.

National Science Foundation Division of Information and Intelligent Systems Director

NSF's Directorate for Computer and Information Science and Engineering (CISE) seeks candidates for the position of Director, Division of Information and Intelligent Systems.

The incumbent provides leadership and direction to the Division, which supports research and education that increases the capabilities of human beings and machines to create, discover and reason with knowledge by advancing the ability to represent, collect, store, organize, locate, visualize and communicate information. Information about the Division's activities can be found at <http://www.nsf.gov/cise/iis/about.jsp>.

Appointment to this Senior Executive Service position may be on a career basis, or on a 1- to 3-year limited term basis, with a salary range of \$107,550 to \$149,200. Alternatively, the incumbent may be assigned under Intergovernmental Personnel Act (IPA) provisions.

Announcements S20060008, with position requirements and application procedures, are posted on NSF's Home Page at:

http://www.nsf.gov/about/career_opps/. Applicants may also obtain the announcement by contacting the Executive Personnel Staff at 703-292-8755 (Hearing impaired individuals may call TDD 703-292-8044). Applications must be received by January 6, 2006.

NSF is an Equal Opportunity Employer.

New York University Computer Science Department Faculty Openings

The department expects to have several regular faculty positions beginning in September 2006 and invites candidates at all levels. We will consider outstanding

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Professional Opportunities

candidates in all areas; high priority areas are algorithms, programming languages and formal methods, scientific computing, and graphics, visualization and computer vision. Faculty members are expected to be outstanding scholars and to participate in teaching at all levels from undergraduate to doctoral. New appointees will be offered highly competitive salaries, competitive startup packages, and low-cost university housing within short walking distance of the department. New York University is located in Greenwich Village, one of the most attractive residential areas of Manhattan.

The department has 31 regular faculty members and several adjunct, clinical, research, and visiting faculty members. Current strengths of the department lie in algorithms, computational biology, computer graphics, computer vision and image processing, distributed and parallel computing, multimedia, machine learning, natural language processing, operating systems, programming languages and verification, and scientific computing. There are specialized laboratories and research facilities for computer graphics and multimedia, computer vision, and parallel and distributed computing.

Collaborative research with industry is facilitated by the geographic proximity to the main research centers of AT&T, IBM, Lucent, Matsushita, NEC, Siemens and Telcordia.

Please apply online at: http://cs.nyu.edu/web/faculty_application/
To guarantee full consideration, applications should be submitted no later than Jan. 6, 2006; however, this is not a hard deadline, as all candidates will be considered to the extent feasible, until all positions are filled. Visiting positions may also be available.
New York University is an equal opportunity/affirmative action employer.

Northeastern University
College of Computer and Information Science
Tenure-Track Positions

Invites applications for tenure-track faculty positions in computer science and information science, beginning in Fall 2006, at the Assistant Professor level. Exceptional candidates at the senior level (Associate or Full Professor) will also be considered. A PhD in computer science, information science or a related field is required.

Computer Science
Candidates will be considered from all major disciplines of computer science. We particularly welcome candidates with a demonstrated potential to excel in collaborative research spanning multiple research areas. The College has particular strengths in programming languages and software engineering, network security and distributed computing, database management and information retrieval, artificial intelligence, and human-computer interaction.

Information Science
Candidates will be considered from all areas of information science. We particularly welcome candidates with research programs in organizational or health informatics, information policy, information security, and information architecture. Current areas of faculty research in information science include human-computer interaction, information retrieval, natural language processing, data mining, and information systems design.

The College maintains a strong research program with significant funding from the major federal research agencies and private industry. The College has a diverse full-time faculty of 24, with approximately 600 undergraduates, 125 Masters, and 60 Ph.D. students. In addition to degrees in computer science, the College offers an innovative B.S. program in Information Science, combining traditional computer science with relevant material from business and the social sciences in an integrated program that focuses on the interaction between information, computers, and people.

Northeastern University is located on the Avenue of the Arts in Boston's historic Back Bay. The College occupies a new state of the art building opposite Boston's Museum of Fine Arts.

Please send a resume, statement of research and teaching interests, and three letters of recommendation (sent directly from the referee) electronically to hiring@ccs.neu.edu or on paper to:
Faculty Hiring Committee
College of Computer and Information Science
202 West Village H
Northeastern University
Boston, Massachusetts 02115
Electronic submission of documents is encouraged. Screening of applications begins

immediately and will continue until the search is completed. For further information, see <http://www.ccs.neu.edu/hiring/>.
Northeastern University is an Equal Opportunity/Affirmative Action Employer. We strongly encourage applications from women and minorities.

Northern Illinois University
Department of Computer Science
Department Chair

The College of Liberal Arts and Sciences at Northern Illinois University invites applications for the position Chair of the Department of Computer Science. The department offers three undergraduate emphases leading to the degree Bachelor of Science and a master's program. The department employs 24 full time faculty members and 35 graduate assistants and has about 400 undergraduate majors and 130 graduate students. The department's curricula emphasize software application development on the major computing platforms used in business and industry. The department's graduates are highly regarded for their technical skills and are recruited nationally. The department conducts an extensive internship program in cooperation with organizations located throughout the country. Additional information about the department and its faculty members can be found at www.cs.niu.edu.

Candidates should have a research record and be eligible for appointment at a senior level. In addition, administrative experience is preferred. Please send an application, a resume, and three current letters of recommendation to:
Chairperson, Computer Science
Chair Search Committee
Department of Computer Science
Northern Illinois University
DeKalb, IL 60115
by December 15, 2005.
Northern Illinois University is an Affirmation Action/Equal Opportunity Institution.

Oak Ridge National Laboratory
Postdoctoral Research Associate Position
Agent-based Modeling of Hierarchical Organization in Ecological Systems

The Environmental Sciences Division of Oak Ridge National Laboratory (ORNL) invites qualified persons to apply for a Postdoctoral Research Associate position at the Laboratory.

The successful candidate will engage in research using agent-based system simulation to investigate the hierarchical organization of ecological systems and the transmission of perturbation across levels of organization. The candidate will be expected to lead the software engineering aspects of the research, adapting and implementing existing codes where possible and appropriate, but engineering new software solutions and developing new codes as needed. The work will be conducted as part of a Department of Energy funded project (<http://per.ornl.gov/King.html>) using multi-agent system simulation to investigate whether hierarchical organization of ecological systems is an emergent property in which higher-level organization results from local interactions among lower-level agents, and how environmental perturbation is transmitted through self-organized hierarchical structure.

The principal qualification is a Ph.D. degree within the last three years in computer sciences, computational science, or other scientific field utilizing computational science. Qualified post-Masters candidates will also be considered. Preference will be given to candidates with experience in developing and implementing agent-based or multi-agent simulation software in a high performance (parallel) computing environment. Familiarity with complex systems and hierarchy theory are desirable, but not required. Excellent oral and written communication skills and willingness to work in a multi-disciplinary environment are required. This is a two-year position. Preferred starting date is September 30, 2005, earlier if possible.

Qualified applicants are invited to send a current resume and a list of 3 or more references by August 31, 2005 to the attention of:

Dr. Anthony W. King
P.O. Box 2008
Oak Ridge National Laboratory
Oak Ridge, TN 37831-6335
or e-mail to: kingaw@ornl.gov.
Please reference the position title and number (ORNL05-25-ESD), when corresponding about this position.
More information about the Oak Ridge National Laboratory, the Environmental Sciences Division, and computer and computational sciences at ORNL is available at: <http://www.ornl.gov> <http://www.esd.ornl>.

gov <http://www.csm.ornl.gov> http://computing.ornl.gov/cse_home <http://www.ccs.ornl.gov/>
This position will be offered through the Oak Ridge Institute of Science and Energy (ORISE) Oak Ridge National Laboratory Postdoctoral Research Associates program <http://www.ornl.gov/orise/edu/ornl/ornl-pd/ornlpdoc.htm>. The program is open to all qualified U.S. and non-U.S. citizens.

The Pennsylvania State University
Department of Computer Science and Engineering
Faculty Position Vacancies

Applications are invited for several tenure-track faculty positions at all ranks. Outstanding candidates in all areas of computer science and engineering will be considered. Areas of particular interest are Compilers and Programming Languages with an emphasis on embedded systems, trusted computing or parallel systems; Data Management with a focus on databases/data warehouses, data mining, and their applications; Scientific Computing with a focus on scalable algorithms and systems for modeling and simulation; and Software Systems with an emphasis on operating systems, file and storage technologies, and autonomic computing. Candidates are also sought for interdisciplinary joint positions in the areas of bioinformatics and VLSI including analog and mixed-mode circuits.

The Department of Computer Science and Engineering (CSE) has 32 collegial, tenure-track faculty. The undergraduate and Doctoral programs are consistently ranked in the top 20 by the US News and World Report. The University is committed to growing the faculty ranks over the next several years. Eight members of our faculty are recipients of the NSF Career Award. In recent years, our faculty received 7 NSF ITR Grants, a \$2.5M Research Infrastructure Grant, and three NSF Cyber Trust awards (in 2005). There are state-of-the-art research labs for computer systems, computer vision and robotics, microsystems design and VLSI, networking and security, scientific computing, bioinformatics and virtual environments. The Department offers a graduate program with about 38 Masters students and 142 Ph.D. students, and undergraduate programs with minimum GPA requirements in computer science and computer engineering. In December, 2003, the Department relocated into a new 100,000 square feet building (<http://www.cse.psu.edu/ist.html>).

Penn State is a major research university and is ranked third in the nation in industry-sponsored research among universities. US News and World Report consistently ranks PSU's College of Engineering undergraduate and graduate programs in the top 15 of the nation. The university is located the beautiful college town of State College in the center of Pennsylvania. State College has 40,000 inhabitants and offers a variety of cultural and outdoor recreational activities nearby. The university offers outstanding events from collegiate sporting events to fine arts productions. Many major population centers on the east coast (New York, Philadelphia, Pittsburgh, Washington D.C., Baltimore) are only a few hours drive away and convenient air services to several major hubs are operated by three major airlines out of State College. Applicants should hold a Ph.D. in computer science, computer engineering, or a closely related field and should be committed to excellence in both research and teaching. Support will be provided to the successful applicants for establishing their research programs. We encourage dual career couples to apply. Applications should be received by January 31, 2006 to receive full consideration. To apply by electronic mail, send your resume (including curriculum vitae and the names and addresses of at least three references) as a postscript file or pdf file to recruiting@cse.psu.edu. Applications may also be sent by mail to:

Chair, Faculty Search Committee
The Pennsylvania State University
Department of Computer Science and Engineering
111 Information Sciences and Technology Building
Box CRN
University Park, PA 16802-6106
For more information about the Department of CSE at PSU, see <http://www.cse.psu.edu>.

Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce. Women and minorities are encouraged to apply. Click on the link to fill out and print an Affirmative Action Applicant Data Card. NOTE: This will require you to have Adobe Acrobat Reader 4.0 or better to download this form and fill it in prior to

printing it. This form can then be faxed to Beth Kennedy at (814) 865-3176.

Purdue University
Department of Computer Science
Tenure-Track Positions

The Department of Computer Science at Purdue University invites applications for tenure-track positions beginning August 2006 in two College of Science wide multi-disciplinary areas - bioinformatics and massive data management. Information about this multidisciplinary hiring effort can be found at <http://www.science.purdue.edu/COALESCE/>. Positions are available at the Assistant Professor level. More senior positions will be considered for highly qualified applicants and may be joint with another department. The search invites candidates in the following areas:

Bioinformatics: An individual expertise in broad areas of bioinformatics, including, but not limited to systems biology, proteomics, metabolomics, modeling and dynamics of protein complex systems and protein-protein interactions, and analysis of signaling pathways. Expertise in algorithmic aspects, theoretical characterization, data analysis, and statistical validation, as well as software and system development are desirable.

Data Mining and Analysis: An individual with expertise in data mining and data analysis on extremely massive data sets. Of particular interest are researchers developing general theories and statistical methods applicable to a broad set of scientific data mining applications and researchers with experience and accomplishments in the area of reasoning under uncertainty.

High Performance Computing: An individual with expertise in high-performance computing, with applications in information retrieval and data analysis. Of particular interest are candidates employing algorithmic and algebraic approaches to address problems in large-scale data handling. Knowledge of state-of-the-art parallel and distributed computing platforms, including the grid, is desirable.

Scientific Visualization: An individual with expertise in visualization, rendering and simulation of very large data sets with applications in science and engineering. The application domains include earth and atmospheric sciences, physics, chemistry, medicine, molecular biology, and large geospatial virtual data sets. Of particular interest are candidates experienced in scalability at the modeling/acquisition, rendering and display stages, as well as in grid-based visualization, and in the visualization of inherently spatial data.

All applicants should hold a PhD in Computer Science, or a closely related discipline, be committed to excellence in teaching, and have demonstrated strong potential for excellence in research. Salary and benefits are highly competitive. Applicants are strongly encouraged to apply electronically by either applying directly at:

<http://applications.science.purdue.edu/> or by sending a curriculum vitae, research and teaching statements, and names and contact information of at least three references in PDF to fac-search@cs.purdue.edu. The research statement should address the multidisciplinary contributions. Hard copy applications can be sent to:

Faculty Search
Department of Computer Science
250 N. University Street
Purdue University
W. Lafayette, IN 47907-2066
Applicants matching one search may be considered in other relevant searches when appropriate. Review of applications will begin on October 1, 2005, and will continue until the positions are filled.

Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer and is committed to building a diverse faculty of excellence.

Purdue University
Department of Computer Science
Tenure-Track Positions

The Department of Computer Science at Purdue University invites applications for tenure-track positions beginning August 2006. A number of positions are available at the Assistant Professor level; senior positions will be considered for highly qualified applicants. Applications from outstanding candidates in all areas of computer science will be considered. Of particular interest are candidates with a research record in the department's growth areas, including software engineering, operating systems, and human-computer interaction and in the multidisciplinary areas of bioinformatics, data mining and data analysis, scientific visualization, and high performance computing.

Professional Opportunities

The multidisciplinary positions are part of a College of Science-wide hiring effort and applicants should address the multidisciplinary contributions of their work in their research statements.

The Department of Computer Science offers a stimulating and nurturing academic environment. Forty-one faculty members direct research programs in analysis of algorithms, bioinformatics, databases, distributed and parallel computing, graphics and visualization, information security, networking, programming languages and compilers, scientific computing, and software engineering. The department has implemented a strategic plan for future growth supported by the higher administration and will move into a new building in summer 2006. Further information about the department and its strategic plan are available at <http://www.cs.purdue.edu>. Information about the multidisciplinary hiring effort and its targeted areas can be found at <http://www.science.purdue.edu/COALESCE/>.

All applicants should hold a PhD in Computer Science, or a closely related discipline, be committed to excellence in teaching, and have demonstrated strong potential for excellence in research. Salary and benefits are highly competitive. Applicants are strongly encouraged to apply electronically by sending their curriculum vitae, research and teaching statements, and names and contact information of at least three references in PDF to fac-search@cs.purdue.edu.

Hard copy applications can be sent to:
Faculty Search Chair
Department of Computer Science
250 N. University Street
Purdue University
West Lafayette, IN 47907-2066
Applicants matching one search may be considered in other relevant searches when appropriate. Review of applications will begin on October 1, 2005, and will continue until the positions are filled.

Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer and is committed to building a diverse faculty of excellence.

Rice University Department of Computer Science Tenure-Track Positions

The Department of Computer Science at Rice University seeks applications for tenure-track faculty appointments to start in July 2006. We welcome outstanding candidates in all areas of computer science. We are particularly interested in candidates with interest and experience in high-performance computing. We anticipate hiring at the rank of Assistant Professor, although exceptional candidates for higher ranks will be considered. The Department and the Center for High Performance Software at Rice also have openings for research positions, including research faculty, research scientists, and postdoctoral researchers. The availability of research positions is contingent on external funding.

Applicants for both tenure-track faculty and research positions should hold a Ph.D. degree or equivalent in computer science or a related discipline, or expect to complete such requirements prior to assuming an appointment. A commitment to excellence in both research and teaching is required for a tenure-track appointment. Early applications will be appreciated.

The department has access to superb research facilities, including parallel and multiprocessor systems laboratories, two terascale computers, large networks of workstations, and a high-speed network test bed. The university is located across the street from the Texas Medical Center, one of the premiere centers for medical research in the country. Houston's oil, medical, aerospace, and technology communities all combine to make it a center for many kinds of computation, from high-performance computing through real-time and embedded systems.

Rice University is a private university with a strong reputation for academic excellence in both undergraduate education and in research. Rice attracts outstanding undergraduate and graduate students from across the nation and around the world. Rice provides a stimulating environment for research, teaching, and joint projects with industry. Teaching loads are low to accommodate faculty research.

To apply, send a resume, a statement of research and teaching interests, and the names and addresses of at least three references to:
Computer Science Search Committee
Rice University, MS 132
6100 Main Street
Houston, TX 77005-1892
The deadline for applications is January 15, 2006, but earlier submissions are appreciated.

Please specify whether you are applying for a tenure-track faculty position or a research position.
More information can be found on our web site, <http://www.cs.rice.edu> or by contacting Rhonda Guajardo (713-348-3818), rhonda@rice.edu.
Rice University is an Equal Opportunity/Affirmative Action Employer.

Rutgers, The State University of New Jersey Statistics Department Any level

Applications for one, and possibly two, tenure-track or tenured positions at any level, starting from January or August 2006, contingent on availability of funding.
For junior level candidates, evidence of actual or potential excellence in research and teaching are required. For a senior level candidate, a national or international reputation of excellence is required. Send CV, and three letters of recommendation to:
Chair, Search Committee
Department of Statistics
Rutgers University
Hill Center
110 Frelinghuysen Road
Piscataway, NJ 08854-8019
Rutgers University is an equal opportunity employer.

Santa Fe Institute Postdoctoral Fellowships

The Santa Fe Institute (SFI) anticipates several openings for postdoctoral fellowships beginning in September 2006. SFI research is integrative, drawing input from across the natural and social sciences. Current research topics in computer science include computational complexity, adaptive & resilient computations, computer immune systems, novel forms of computation, and simulation. Details can be found at <http://www.santafe.edu/indexResearch.html>.
Please view the full position announcement and application instructions at:
<http://www.santafe.edu/postdoc06.html>.
For full consideration, all application materials must be received electronically (preferred) or via post no later than November 15, 2005.
For further information, e-mail postdocinfo@santafe.edu or call (505) 946-2746.

Skidmore College Mathematics & Computer Science Tenure-Track Faculty Associate or Assistant Level

The Department of Mathematics and Computer Science at Skidmore College invites applications for a tenure-track position in Computer Science beginning September 2006. Qualifications include a Ph.D. (or A.B.D.) in Computer Science or a closely related field. The appointment will be at the rank of Assistant or Associate Professor.
A commitment to quality instruction of undergraduates and continuing scholarly activity is essential. Responsibilities will include developing and teaching a wide range of courses across the undergraduate CS curriculum (normally four courses per year) and active research in a field of CS. Startup funds and pre-tenure sabbaticals are available. For detailed information, see <http://www.skidmore.edu/academics/mcs/mcs-home/index.htm>.
Candidates for the position should submit a letter of application and resume, and have three letters of recommendation sent separately. Electronic submittals are preferred and should be sent to:
anita@skidmore.edu.
Mailed applications and recommendations should be sent to:
Pierre A. von Kaenel, Chair
Department of Mathematics and Computer Science
Skidmore College
815 North Broadway
Saratoga Springs, NY 12866
Review of applications will begin January 2006, and continue until the position is filled. Applications from members of underrepresented groups are especially encouraged.

Southern Illinois University, Carbondale Department of Computer Science Faculty Position

Applications are invited for up to two tenure-track faculty positions at the Assistant Professor level. The position will begin on August 16, 2006. Basic requirements include a Ph.D. in computer science or related field by date of hire, evidence of ongoing and future research, and teaching competency

in a reasonable number of computer science subjects at both the undergraduate and graduate levels.
Applicants with a research specialty in any area of computer science will be considered, however, priority will be given to an applicant with a research interest in computational sciences. Review of completed applications will begin on January 3, 2006 and continue until the position is filled. Applicants should send a letter of interest, curriculum vitae, and have at least three of your references send their recommendation letters directly to:
Faculty Search Committee
Department of Computer Science
Faner 2125, Mailcode 4511
Southern Illinois University
1000 Faner Drive
Carbondale, IL 62901
For more information about the Department of Computer Science, visit our web site at <http://www.cs.siu.edu>. Questions may be directed to the Faculty Search Committee, via georgia@cs.siu.edu.
SIUC is an affirmative action/equal opportunity employer that strives to enhance its ability to develop a diverse faculty and staff and to increase its potential to serve a diverse student population. All applications are welcome and encouraged and will receive consideration.
**Stanford University
Joint Electrical Engineering and Statistics Departments Search
Tenure-Track Faculty Position**
Stanford University's Department of Electrical Engineering (<http://ee.stanford.edu/>) and Department of Statistics (<http://www-stat.stanford.edu>) are seeking applicants for a tenure-track faculty position in a research area that explores novel interfaces between EE and Statistics. An emphasis of the search is in large-scale interacting stochastic systems such as random networks, graphs, and matrices. Application areas include: coding, array signal processing, high-dimensional statistical inference, machine learning, and genomic signal processing. Higher priority will be given to the overall innovation, originality, and promise of the candidate's work than to any specific sub-area of research. An earned Ph.D., evidence of the ability to pursue a research program, and a strong commitment to both graduate and undergraduate teaching are required.
A successful candidate will be expected to teach courses at the graduate and undergraduate levels and to build and lead a team of graduate students in Ph.D. research. The search is open at the junior tenure-track level (Assistant Professor or untenured Associate Professor). Applications should include a detailed resume (including academic transcripts for recent graduates), a brief research and teaching plan, and at least four reference letters. Applications arriving before January 10, 2006 will be given full consideration. All material should be mailed to:
Joint EE-Statistics Search Committee
c/o Corinne Barkow
Stanford University
350 Serra Mall, #167
Stanford, CA 94305-9510
or via electronic mail to:
search@ee.stanford.edu
Stanford University is an equal opportunity, affirmative action employer.

Texas A&M University-Corpus Christi Computer Science Department Tenure-Track positions

Texas A&M University-Corpus Christi, the Island University, located on the sunny South Texas coast, is seeking applicants for tenure-track faculty positions in computer science at the Assistant Professor to Professor levels.
TAMU-CC is the fastest growing university in Texas, and has been ranked the top public regional university in Texas two years in a row by U.S. News & World Report. The Department of Computing and Mathematical Sciences currently offers academic programs in computer science (BS, MS) that strongly emphasize the application of computing.
We are planning to offer a Ph.D. in Applied Computing with an emphasis in environmental applications. Thus, for the senior-level position we are seeking an individual with research interests compatible with the research direction of the department who has experience in advising Ph.D. students. The successful candidate will have the opportunity to play a major role in planning and developing our new Ph.D. program. For the junior-level positions we are also seeking individuals with research interests compatible with the research direction of the department. A Ph.D. in computer science or closely related area is required.

Applicants should send a letter of application, a curriculum vitae, unofficial copies of graduate transcripts, and arrange to have three letters of recommendation sent to:
College of Science & Technology
Attn: Ken Brown, Administrative Assistant
Texas A&M University-Corpus Christi
6300 Ocean Drive (FC-179)
Corpus Christi, TX 78412
The positions are available Fall 2006. Positions will remain open until filled, however, applicants are encouraged to submit applications by February 1, 2006.
TAMU-CC is an Equal Opportunity Employer committed to diversity.
<http://www.tamucc.edu>.

Toyota Technical Center

Toyota Technical Center (TTC) is Toyota's largest engineering and research organization in North America, located in Ann Arbor, MI. TTC is seeking an exceptional individual for the full-time position of Senior Research Scientist in the intersection of Computational Intelligence and Robotics research activities, to become a member of the Technical Research Department (TRD). TTC prefers a researcher with experience in sensor fusion for automotive and robotic systems. This position will offer opportunities for collaboration with leading North American and global research institutions. The candidate should also have experience in mentoring junior researchers and have some research project management experience. This research is intended to break new ground and advance the state of the art.
Job Duties and Responsibilities:

- Apply special knowledge and talents to develop and execute new, independent research projects for automotive and robotic applications
- Provide guidance to on-site researchers and research assistants
- Interact with world renowned and leading researchers in applicable areas
- Host visiting Toyota engineers and scientists
- Provide deliverables such as written and oral reports, as well as publications for peer-reviewed journals and conferences

Qualifications:

- Experience in Artificial Intelligence, intelligent signal processing and sensor-fusion research
- Experience in automotive safety systems is preferred
- Experience in robotic research and testing
- Experience in mentoring junior researchers
- Experience in research project management
- Familiarity with computational intelligence is preferred (e.g., neural networks, fuzzy logic, evolutionary algorithms, data mining)
- Ph.D. or Sc.D. in a related field of study
- Good written and oral communication skills
- Ability to work well with others in a team environment
- A willingness to travel
- Position is located in Ann Arbor, MI

The position provides a competitive salary and excellent benefits and all of the amenities of our campus and surrounding community. Please apply online to Toyota using the following URL:
http://www.toyota.com/tma/about/jobs/JobSearch.do?SESSIONID_TMA=CMMiZ7XYtpeVe7HaNZtXkGs1AUDz1m9xscLU8xFJo5vmA5GQpial

University of California, Berkeley Electrical Engineering and Computer Sciences Department Tenure-Track Positions

The University of California, Berkeley invites applications for several approved tenure-track positions in Electrical Engineering and Computer Sciences at the Assistant Professor level, beginning Fall 2006, subject to budgetary approval. We also consider possible joint appointments with other Berkeley departments.
Applicants should have (or be about to receive) a Ph.D. in Computer Science, Electrical Engineering, Computer Engineering, or a related field, evidence of ability to establish and pursue a program of high quality research, and a strong commitment to graduate/undergraduate teaching.
Prioritizing candidates overall originality and promise over sub-area of specialization, we seek applicants interested in creating innovative and far-reaching solutions to important problems in electrical engineering and computer science. We also welcome applicants working in interdisciplinary areas such as computational biology, nanoelectronics,

(continued)

Professional Opportunities

or the uses of computing in the interests of society.

Applications should include a resume, statements of research and teaching interests, selected publications, and the names of three references who will send recommendations.

Review begins 12/15/2005; candidates are urged to apply by that date. The application period closes 2/15/2006, and applications received after that date will not be considered. Send Computer Science applications to:

CS Search Committee
c/o Debra Zaller, CS Academic Personnel
381 Soda Hall
UC Berkeley
Berkeley, CA 94720-1776
Send Electrical Engineering applications to:
EE Search Committee
c/o Jean Richter, EE Academic Personnel
231 Cory Hall
UC Berkeley
Berkeley, CA 94720-1770
or by email to:
ee-faculty-recruiting@eecs.berkeley.edu.

Applicants working at the intersection of electrical engineering and computer science may apply to either address. All such applications receive Department-wide review. Reference letters are NOT requested directly by the department. Recommenders providing letters should send them directly to the appropriate address by 1/10/2006.

Alternatively, recommenders may email reference letters to:

cs-references@eecs.berkeley.edu or
ee-references@eecs.berkeley.edu .

Potential reviewers may review the UC Berkeley Statement of Confidentiality at: <http://apo.chance.berkeley.edu/evalltr.html> .

University of California is an Equal Opportunity, Affirmative Action Employer.

University of California, Davis Department of Statistics *Assistant/Associate Professor*

One position, either tenure-track Assistant Professor or tenured Associate Professor, beginning July 1, 2006. Requires Ph.D. in Statistics or related field with emphasis on Bayesian statistics and algorithmic methods.

By 12/1/05, email vitae and statement of research interests to:

search@wald.ucdavis.edu.

Send three letters of reference, papers, and transcripts (Ph.D. after 2003) to:

Search Committee
Dept. of Statistics
University of California
Davis, CA 95616
Affirmative action/equal opportunity employer.

University of California, Los Angeles Department of Statistics *Tenure-Track position*

The UCLA Department of Statistics is seeking applications for a tenure-track, assistant professor position. Preference will be given to candidates with a background in computational statistics and with an interest in applications. There is also the possibility of more senior appointments. Women and underrepresented minorities are encouraged to apply.

Appointment begins July 1, 2006. Applicants should send a letter of application, current vitae, samples of published and unpublished work (samples will not be returned), and three letters of recommendation to:

University of California, Los Angeles
Department of Statistics
c/o Professor Jan de Leeuw
8125 Math Sciences Building
Box 951554
Los Angeles, CA 90095-1554

For additional information contact Prof. Jan de Leeuw, Chair, Department of Statistics, (310) 825-8430 or fax (310) 206-5658, e-mail deleeuw@stat.ucla.edu. Full consideration is guaranteed to those who apply by March 1, 2006, however, the search will remain open until all positions are filled.

The University of California Los Angeles is an Equal Opportunity/Affirmative Action Employer.

University of California, Merced Cognitive Science and Engineering *Assistant Professor*

UC Merced invites applications for Assistant Professor of Cognitive Science and Engineering, as part of a long-term plan to build a concentration of researchers in cognitive science.

Candidates should have a strong educational background in computer science and cognitive science, or related fields. Applicants must have a strong publication record and a well-established interdisciplinary

research program. Preference will be given to those with broad interests in computation, including computational vision or more generally, computational modeling, but applications from cognitive engineers or those working in human-computer interaction will also be considered. Applicants should want to play a leadership role and actively engage in building our interdisciplinary undergraduate and graduate programs.

The University of California at Merced is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty, staff, and students.

To Apply: http://jobs.ucmerced.edu/view_academic_position.faces?positionId=300.

Application deadline: 12/1/2005.

University of California, Santa Cruz Computer Science Department *Assistant Professor*

The UCSC Computer Science Department welcomes outstanding applicants for the following tenure-track faculty position within the Baskin School of Engineering:

Assistant Professor

Interests: Outstanding applicants in Computer Science, preference for Science, Design and Engineering of Computer Games
Position # 582-06

The department has strong graduate M.S. and Ph.D. programs, as well as established B.A. and B.S. undergraduate programs, and a new B.A. track focused on games titled ***Interactive Game Engineering***. Excellent computing facilities and state-of-the-art laboratories in the new Engineering 2 building, support research and instruction.

UCSC is close to Silicon Valley and has strong ties with many of the high technology companies in the area. Faculty salaries are competitive and opportunities for consulting are extensive.

Visit www.soe.ucsc.edu/jobs/cs for detailed job description and application instructions.

Application Materials Required: curriculum vitae, statement of research plans, statement of teaching interests, URLs of selected reprints, and ensure that at least three confidential letters of recommendation are sent directly to the search committee. Please refer to the position number in correspondence and materials.

Full consideration for applications arriving by January 9, 2006.

UCSC is an EEO/AA/IRCA employer.

University of California, Santa Cruz Computer Engineering *Assistant and Associate Professor*

The Department of Computer Engineering at the University of California, Santa Cruz invites applications for faculty positions.

Position #488: A tenure-track (Assistant Professor) faculty position. We seek outstanding applicants in all areas of Computer Engineering, and particularly welcome those with research interests in Assistive Technology including sensory augmentation, human-machine interface, wearable computers, prosthetic devices, and technology for the elderly and the disabled.

Position #63/63T: A tenure-track (Assistant Professor) or tenured (Associate Professor) faculty position. We seek outstanding applicants in the area of Computer System Design, including VLSI design, FPGA design, VLSI CAD, system-on-a-chip design, and related areas. The campus is especially interested in candidates who can contribute to the diversity and excellence of the academic community through their research, teaching, and service. UCSC is the University of California campus nearest to Silicon Valley and has close research ties with this local computer industry.

Please submit a curriculum vitae, a statement of research and teaching plans, URLs of selected reprints, and ensure that at least three confidential letters of recommendation are sent directly to the search committee by Jan. 2, 2006. We strongly encourage electronic submission of your materials.

Directions: <http://www.soe.ucsc.edu/jobs/faculty/apply>. All letters will be treated as confidential documents; direct your letter writers to UCSC's confidentiality statement: <http://www2.ucsc.edu/ahr/policies/confstm.htm>. Alternatively, application materials may be mailed to:

Computer Engineering Search Committee
Baskin School of Engineering
University of California
1156 High Street MS: SOE3
Santa Cruz, California 95064
Please indicate clearly the position for which you are applying: Position #488

(Assistant Professor, Assistive Technology), #63 (Assistant Professor, Computer System Design) or #63T (Associate Professor, Computer System Design).

Information on the positions: recruit@soe.ucsc.edu. Information about Baskin School of Engineering at UCSC: <http://www.soe.ucsc.edu/>.

UCSC is an EEO/AA/IRCA Employer.

University of Central Florida The School of Computer Science in the College of Engineering & Computer Science *Tenured & Tenure-Track Faculty*

UCF Computer Science is looking for talented faculty in all areas of specialization. We expect to fill over 10 faculty lines in the next few years, and seek outstanding candidates for tenured and tenure-track faculty positions at all levels for appointments in 2006. We are particularly interested in candidates with research interests in artificial intelligence, bioinformatics, compilers, computer architecture, computer graphics, computer vision, database and information systems, mobile systems, multimedia applications, networking, operating systems, parallel and distributed computing, performance evaluation, quantum computing, and security/cryptography.

We offer competitive salary and start-up packages and our faculty enjoy generous benefits. New faculty have graduate student support and significantly reduced teaching loads. Special senior-level positions are available to exceptionally qualified individuals, and we welcome candidacies from coordinated groups of faculty as we seek to add to the growing strength of our program.

Applicants should have a Ph.D. and a strong commitment to the academic process, including teaching, scholarly publications, and sponsored research. Candidates at the Associate or Full Professor level should have demonstrated leadership in their fields at the national/international level. Those applying for Assistant Professorships should have a track record of high quality publications, and be recognized for their potential.

UCF Computer Science is the oldest Ph.D. granting CS program in the state of Florida. We have a rapidly growing educational and research program with over \$2.2MM in annual expenditures from grants and contracts, with over 220 graduate students and 750 undergraduate CS majors. In addition, we offer a B.S. degree in Information Technology (IT), with over 350 undergraduate majors. We also encourage faculty candidates for the IT program to respond to this ad. The University is strongly committed to continue the buildup of strength in CS, with significant special monetary support dedicated to maintain and expand the excellence of the School of Computer Science. Along with ECE, CS will be moving into a 75,000 sq. ft. state-of-the-art building in 2006.

Our Federal research sponsors include NSF, NASA, and the Department of Transportation, as well as ARO, ONR, PEOSTRI, RDECOM, and other agencies of the Department of Defense. We enjoy the support of numerous industrial sponsors including established companies such as Adaptec, ATI, Boeing, Canon, Electronic Arts, Harris, Honeywell, IBM, Imagesoft, Intel, Lockheed Martin, Lucent, Oracle, Schwartz Electro-Optics, and Sun Microsystems as well as local hi-tech start-ups. UCF has over 43,000 students and is among the nation's largest universities. We are located in Orlando, FL at the center of the I-4 High Tech Corridor with a thriving industrial base in telecommunications, computer systems, semiconductors, defense and space, lasers, simulation and software, and the world renowned entertainment industry. The Orlando metropolitan area enjoys an exceptional climate with rapid access to the Atlantic seashore and the Gulf of Mexico. Because of the presence of major theme parks such as Disney World, Sea World and Universal Studios, we benefit from a major airport with numerous direct international and national connections. Orlando is also a major center for national and international technical conferences.

Please fill out the application online at: http://www.cs.ucf.edu/facsearch/online_app.html.

Applicants are asked to provide a cover letter clearly indicating their primary research area, a detailed CV, a Research Statement, a Teaching Statement, and five names of references (a single PDF file is preferred). Screening begins upon receipt of application. Applications will be accepted until all positions are filled.

The University of Central Florida is an Equal Opportunity/Affirmative Action employer. Women and minorities are

particularly encouraged to apply. As an agency of the State of Florida, UCF makes all application materials and selection procedures available for public review.

University of Illinois at Chicago Department of Computer Science *Faculty Position*

We invite applications for one or more anticipated open rank faculty positions, starting August 16, 2006. A Ph.D. degree or equivalent in Computer Science is required. Candidates at the assistant professor level should have a strong research and teaching potential and senior candidates should have a proven record of outstanding research and teaching. Candidates in all areas of Computer Science will be considered so as to either strengthen or complement the department's current research.

UIC is a research-1 university with 15 colleges offering ample opportunities for interdisciplinary research. The University is in the midst of a \$500 million campus development project. The UIC campus is located near downtown Chicago, and is close to other research institutions and universities. Chicago offers all the cultural amenities of a major city, a wide range of affordable housing and plenty of industrial opportunities.

The Department of Computer Science, which belongs to the College of Engineering, has 33 faculty members, and more than 80 PhD students. The faculty includes eight new hires since 2001. Five faculty members are IEEE or ACM fellows and eight are NSF CAREER award winners. The department is one of the fastest growing departments in terms of scholarly research and grant productivity. External research expenditures have averaged \$7.5 million per year over the last three years. For more information, visit our web page at <http://www.cs.uic.edu>.

Applications must be submitted in hard copy. Send a vita and the names and addresses of at least three references to:

Faculty Search Committee Chair
The University of Illinois at Chicago
Dept. of Computer Science (M/C 152)
851 S. Morgan Street
Chicago, Illinois 60607-7053

Review of applications will begin on January 10, 2006 and will continue until the positions are filled. Inquiries may be addressed to faculty_search@cs.uic.edu.

The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.

University of Illinois at Urbana-Champaign Department of Computer Science *Tenure-Track & Tenured Professors*

The Department of Computer Science, UIUC, invites applications for full-time, tenure-track and tenured professors. All areas of computer science research will be considered, including, in particular, HCI and social computing, AI, software engineering, bioinformatics, security, systems, computational science, and theory and algorithms. Candidates working in interdisciplinary areas are strongly encouraged to apply.

Tenure-track applicants must have demonstrated excellence in research; tenured applicants must have recognized national and international stature.

Computer Science at Illinois is internationally recognized for its breadth and depth of research and has strong collaborative relations with many other departments and institutes on campus. The department is targeted to grow aggressively to over 60 faculty; it has recently moved into the newly completed Thomas M. Siebel Center for Computer Science, a large, technologically advanced facility that provides outstanding support to research and education in Computer Science and is used by the department as a living lab.

Successful candidates must initiate and conduct independent research and perform academic duties associated with our BS, MS, and PhD programs. Qualifications: PhD in Computer Science or a closely related field (or imminent completion of degree), outstanding academic credentials, and the ability to teach effectively at both the graduate and undergraduate levels. Starting date: August 16, 2006. The salary is open, based on qualifications.

To ensure full consideration, applications must be received by January 6, 2006. Interviews may take place during the application period, but a final decision will not be made until ad closing.

Applicants should submit online an application letter, curriculum vitae, and statement of career objectives to:

<http://webapps.cs.uiuc.edu/services/apply/facoverlap.php>.

If you have questions or are unable to apply using this URL, please send email to: admin@

Professional Opportunities

cs.uiuc.edu for further instructions.
The University of Illinois is an Affirmative Action, Equal Opportunity Employer.

University of Maryland, Baltimore County
Information Systems Department
Tenure-Track Position

The Information Systems Department invites applications for a tenure-track faculty position at the Assistant Professor level.
UMBC is the recipient of an NSF ADVANCE Institutional Transformation Award to increase the participation of women in academic careers. The IS Department is multi-disciplinary, placing a strong emphasis on the application of information systems. Candidates would join an existing strongly empirical software engineering group with ongoing projects in software maintenance, communication in software teams, and mining software repositories. Software engineering candidates with expertise in process improvement, project management, and quality management, are encouraged to apply. Outstanding candidates in other areas will also be considered. An interest in teaching project management, applied software engineering, systems analysis and design, or information assurance is also desired. Candidates must have an earned PhD in a relevant area. Non-traditional candidates with significant industrial or governmental background are encouraged to apply. All candidates must show

strong potential for excellence in research and teaching in an academic environment.
The Department offers a wide variety of courses at the Bachelors, Masters, and Doctoral levels, has one of the highest IS enrollments in the USA, and offers the only PhD in Information Systems in Maryland. Further details on research, programs, and the faculty may be found at <http://www.is.umbc.edu/>. Consistent with the UMBC vision, the Department has excellent technical support and teaching facilities as well as outstanding laboratory space and state of the art technology. UMBC's Technology Center, Research Park, and Center for Entrepreneurship are major indicators of active research and outreach.
Interested applicants should send a cover letter, a one-page statement of teaching interests, a one-page statement of research interests, and a curriculum vitae and have three letters of recommendation sent to:
Dr. Andrew Sears
Chair of Faculty Search Committee
Information Systems Department
UMBC
1000 Hilltop Circle
Baltimore, MD 21250-5398
For inquiries, please call Barbara Morris at (410) 455-3795 or e-mail: bmorris@umbc.edu.
Electronic submission of cover letter and curriculum vitae as PDF documents (sent to the preceding e-mail address) are preferred.
Review of applications will begin immediately and will continue until the

position is filled. This position is subject to the availability of funds.
UMBC is an Affirmative Action/Equal Opportunity Employer and welcomes applications from minorities, women and individuals with disabilities.

University of Maryland, College Park
Center for Bioinformatics and Computational Biology
Faculty Positions

The University of Maryland invites applications for faculty positions at the assistant, associate, and full professor level in the Center for Bioinformatics and Computational Biology (cbcb.umd.edu), to be appointed jointly with the Department of Computer Science (www.cs.umd.edu).
The University has committed the resources to recruit several new tenure-track faculty for the newly-created Center, directed by Dr. Steven Salzberg, in order to establish a world-class location for research in bioinformatics, computer science, applied mathematics, statistics, molecular biology, genetics, and genomics. Senior candidates will be expected to lead internationally prominent research programs in computational aspects of genomics and bioinformatics.
All applicants are expected to have publications and research experience beyond the Ph.D. degree with strong components of biological science and computing. Experience in interdisciplinary collaboration is an important asset. The faculty will be housed in contiguous space dedicated to the Center, and will have access to significant high-end computing infrastructure through the University of Maryland Institute for Advanced Computer Studies.

The University of Maryland is located near the nation's capital in Washington, D.C., and offers excellent potential for collaboration with other outstanding bioinformatics and genomics research groups nearby, in organizations such as the NIH, The Institute for Genomic Research, the University of Maryland Biotechnology Institute, and the Smithsonian Institution.
To apply, send a letter of application, curriculum vitae, and letters of recommendation, following the instructions available at the Center's web page: <http://cbcb.umd.edu/aboutus/jobs.shtml>.
The University of Maryland is an affirmative action, equal opportunity employer. Women and minorities are encouraged to apply.
Applications completed by December 15, 2005 will receive full consideration.

University of Maryland, College Park
Department of Computer Science
Faculty Positions

The Department of Computer Science has several openings for faculty positions effective July 1, 2006. We invite applications from both junior and senior candidates to fill the following positions:
1. Artificial Intelligence or Databases with preference to candidates who are at the interface of those two areas.
2. Computational Biology: This search is being conducted jointly with the Institute for Advanced Computer Studies. Interested candidates can submit their applications directly to that program at: <http://cbcb.umd.edu>.
Applications from women and minority candidates are especially welcome. Candidates with established research programs will be considered for joint appointments between the Department and the Institute for Advanced Computer Studies, the Department of Electrical Engineering, and the Institute for Systems Research.
Candidates should submit their application (curriculum vitae and research summary) online at: <http://hiring.cs.umd.edu> and have their references upload their letters to that site. At least three research letters and one teaching letter are required. We will begin the review of candidates by January 16, 2006; therefore, we encourage your early application.
Additional information about academic and research units within the Department of Computer Science at the University of Maryland is available on the World Wide Web at: <http://www.cs.umd.edu>.
The University of Maryland is an Equal Opportunity, Affirmative Action Employer.

University of Massachusetts, Amherst
Department of Computer Science
Faculty Positions

The University of Massachusetts, Amherst invites applications for tenure-track faculty positions at the assistant professor level. Applicants must have a Ph.D. in Computer Science or related area and should show evidence of exceptional research promise. Candidates with an established record of strong research may also apply for positions other than at the assistant professor level. We particularly welcome candidates who would thrive in a highly collaborative environment in which projects often span several research groups. Applicants in all areas of Computer Science will be considered. One to three positions are expected.
The Department of Computer Science has 40 tenure and research track faculty and 180 Ph.D. students with broad interdisciplinary research interests. The department offers first-class research facilities. Please see <http://www.cs.umass.edu> for more information. To apply, please send a cover letter referencing search R25000 (tenure-track position) with your vita, a research statement, a teaching statement and at least three letters of recommendation.
We also invite applications for Research Faculty (search R24999) Research Scientist (R24998), Postdoctoral Research Associate (R24998), and Research Fellow (R24998) 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; appointments will be contingent upon continued funding. To apply, please send a cover letter with your vita, a research statement and at least three letters of recommendation.
Electronic submission of application materials is recommended. Application materials may be submitted in pdf format to: facrec@cs.umass.edu.
Likewise, letters of recommendation may be submitted electronically to facrec@cs.umass.edu either in ascii text or pdf format.
Hard copies of the application materials may be sent to:
Search {fill in number from above}
c/o Chair of Faculty Recruiting
Department of Computer Science
University of Massachusetts
Amherst, MA 01003-9264
We will begin to review applications on November 1, 2005 and will continue until available positions are filled. Salary commensurate with education and experience; comprehensive benefits package.
Inquiries and requests for more information can be sent to: facrec@cs.umass.edu
The University of Massachusetts is an Affirmative Action/Equal Opportunity employer. Women and members of minority groups are encouraged to apply.

The University of Memphis
Department of Computer Science
Tenure-Track Positions

We invite applications for two tenure-track Assistant Professorships beginning August 2006. Required qualifications include a Ph.D. in computer science, or closely related field. We offer B.S., M.S. (including a concentration in Bioinformatics), and Ph.D. degrees, and an M.S. degree in E-Commerce. We have well-funded interdisciplinary research groups.
For further information please visit: <http://www.cs.memphis.edu/>. Review will begin on December 1, 2005 and may continue until the positions are filled, subject to budgetary approvals.
To apply, send cover letter, vitae, statements of teaching and research philosophy, and direct three references to:
chayes1@memphis.edu
The University of Memphis is a Tennessee Board of Regents Institution and an Equal Opportunity/Affirmative Action Employer.

The University of Michigan, Ann Arbor
Department of Electrical Engineering and Computer Science
Computer Science and Engineering Division Faculty Positions

Applications and nominations are solicited for multiple junior and senior faculty positions in the Computer Science and Engineering (CSE) Division. Qualifications include an outstanding academic record, a doctorate or equivalent in computer engineering or computer science, and a strong commitment to teaching and research. Candidates from all areas of computer science and engineering are

(continued)



Dean, College of Engineering and Information Technology
University of Maryland, Baltimore County

UMBC, a Carnegie Doctoral/Research Extensive University, seeks an accomplished, energetic and inspirational leader as its Dean of the College of Engineering and Information Technology. This is an outstanding opportunity for an individual interested in strengthening a dynamic, fast-growing College strategically located in the Baltimore-Washington Corridor at a nexus of federal laboratories and leading technology companies.
Reporting to the Provost, the Dean is the senior academic and administrative officer of the College and is responsible for setting strategic, operational and financial directions. The College has approximately 100 faculty teaching 2,500 undergraduate and 700 graduate students in the areas of Chemical & Biochemical Engineering, Civil & Environmental Engineering, Computer Science & Electrical Engineering, Information Systems and Mechanical Engineering. UMBC hosts the Meyerhoff Program, one of the nation's premier programs for attracting superbly prepared underrepresented minorities and women to careers in science and engineering, and is a recipient of an NSF ADVANCE award to increase the participation of women in academic science and engineering careers.
The Dean is responsible for sharpening the College's focus, cultivating areas of excellence, providing leadership in fundraising and strengthening ties with other distinguished research centers, government laboratories and industry. The Dean will ensure the ongoing support of high quality instruction and research and participate in campus-wide shared governance processes as part of the University's administrative team.
Essential qualifications include successful experience in a university, industry, or government environment with a distinguished record of leadership and intellectual achievement; a Ph.D. or equivalent terminal degree is required. Candidates must possess a teaching and research record commensurate with the rank of Full Professor as well as strong credentials in managing academic affairs. Applicants must demonstrate an ability to secure substantial philanthropic gifts. Additional desirable qualities include a visionary and collaborative leadership style, commitment to undergraduate and graduate education, capacity to work with faculty and administrators across disciplines and a personal and professional commitment to advancing diversity.
UMBC produces approximately 70 Ph.D.s per year and has doubled its externally funded sponsored research portfolio over the last five years to approximately \$80 million per year. UMBC has a remarkable collection of progressive research laboratories, interdisciplinary research centers and institutes, and excellent teaching and research facilities, and is well positioned to continue its growth as a leading research university.
Apply by submitting a cover letter, curriculum vitae and contact information for five references to: Ms. Elaine Wilmore, Senior Associate, Isaacson, Miller, Boston MA 02116. Electronic submission of credentials to 3101@imsearch.com is strongly encouraged. For more information, see <http://umbc.edu/engineering/deansearch/>.

UMBC is an Affirmative Action/Equal Opportunity Employer

Professional Opportunities

encouraged to apply, especially those in theory and software systems. Applications must be received by January 15, 2006.

To apply please complete the form at: <http://www.eecs.umich.edu/eecs/etc/jobs/csejobs.html>

Electronic applications are strongly preferred, but you may alternatively send resume, teaching statement, research statement and names of three references to:

Professor Kareem Sakallah, Chair
CSE Faculty Search
Department of Electrical Engineering and Computer Science
University of Michigan
1301 Beal Avenue, Room 3402
Ann Arbor, MI 48109-2122

The University of Michigan is a Non-Discriminatory/Affirmative Action Employer with an Active Dual-Career Assistance Program.

University of Minnesota - Twin Cities
Department of Computer Science and Engineering
Tenure-Track Position in Bioinformatics

The Department of Computer Science and Engineering at the University of Minnesota-Twin Cities invites applications for an open tenure-track faculty position. This position is at the Assistant Professor level, but highly qualified applicants at higher ranks will also be considered. The primary focus of the position is in bioinformatics and the application of computational methods to life sciences. The University, the State, and the Mayo Clinic are engaging in exciting new initiatives which will involve strong interactions between life sciences and computer science researchers. The ideal candidate will be a catalyst to strengthen these collaborations. Outstanding candidates in all other areas of computer science will also be considered. Requirements include a Ph.D. in computer science, bioinformatics, computational biology, computer engineering, or a closely related discipline, a commitment to quality teaching, and the ability to carry out outstanding, high-impact research which will involve collaboration with various other groups across the University. Senior candidates must possess a distinguished record of research, teaching, and service/leadership. A generous financial and infrastructure package will be provided.

The Department of Computer Science and Engineering has an outstanding group of faculty members (numbering thirty-eight) who have access to excellent computing and research facilities, both within the Department and at various research centers on campus, including the Army High Performance Computing Research Center (<http://www.ahpcrc.org/>), the Minnesota Supercomputing Institute (<http://www.msi.umn.edu/>), and the Institute for Mathematics and its Applications (<http://www.ima.umn.edu>). The Department also plays a prominent role in the Digital Technology Center (<http://www.dtc.umn.edu>) established recently at the University. More information about bioinformatics efforts at the University of Minnesota can be found at <http://www.binf.umn.edu/links.html>. External research funding in the department has grown significantly over the past several years and annual research expenditures are around \$5.5 Million. Additional information about the Department is available at its World Wide Web home page (<http://www.cs.umn.edu>).

The Twin Cities metropolitan area is a major center for the computer and medical technology industry, among others, and offers numerous opportunities for collaborative research. The Department enjoys an excellent rapport with local industry. The Twin Cities area is also renowned for its high quality of life, excellent public schools, and opportunities for year-round recreational activities, and consistently ranks highly in national surveys.

Applicants should submit a curriculum vitae, a research summary, and the names of at least three references to: applications@cs.umn.edu or follow the directions at www.cs.umn.edu. Submissions should be in the form of a single PDF document.

For full consideration, applications should be received by January 9, 2006. However, the search will remain open until the position is filled.

The University of Minnesota is an equal opportunity educator and employer.

University of Missouri-Rolla
Department of Computer Science
Department Chair

The Department of Computer Science at the University of Missouri-Rolla is seeking qualified applicants for the position of Department Chair. Candidates must have a Ph.D. or equivalent with preference given to those in Computer Science and have the qualifications and standing to be appointed as a tenured full professor.

The candidate should have a strong record of research and teaching at a university, but candidates from industry with a strong research record coupled with academic experience are encouraged to apply.

The successful candidate must have strong interpersonal skills and have demonstrated, or have the potential for, strong academic leadership and be committed to promoting the department. The department has three areas of excellence: (1) software engineering with a newly created chaired professorship, (2) all aspects of critical infrastructure protection with emphasis on distributed and embedded systems, networking, and computer security, and (3) bioinformatics. Departmental activities and research are detailed further on our web site, www.cs.umr.edu. The department has 16 full-time faculty and some joint appointments, and grants the BS, MS and Ph.D. degrees. Many of our faculty participate in interdisciplinary research with several campus research centers and departments. The University of Missouri-Rolla is the primary science and engineering campus of the University of Missouri system.

It is situated in the beautiful Ozark woodlands with abundant opportunities for outdoor activities. The urban environment of St. Louis is 90 minutes away via interstate highway. The committee will begin reviewing applications on February 1, 2006. Applications will be accepted until the position is filled. Applicants must send 1) a vitae, 2) statements of leadership philosophy and research and teaching interests, 3) evidence of teaching, research, and communications skills and 4) the names of five references who will be contacted if the candidate is selected for interview to:

Human Resources (hrsinfo@umr.edu)
Reference Number: 00030918
University of Missouri-Rolla
1202 North Bishop
1870 Miner Circle
Rolla, MO 65409-1050
Visit UMR's Human Resources (hrsinfo@umr.edu) website for an application. You can also find information regarding policies, procedures, details about the application process, and specific employment information at this website. Email questions to Human Resources at hrsinfo@umr.edu.

UMR is an AA/EEO employer. Females, minorities, dual career couples, and persons with disabilities are encouraged to apply.

University of Nebraska - Lincoln
Department of Computer Science and Engineering
Tenure-Track Position

The Department of Computer Science and Engineering at the University of Nebraska-Lincoln invites applications for a tenure track faculty position at the rank of Assistant Professor, to begin in August, 2006.

We are seeking a faculty member who can establish a strong research and teaching program, and who complements our existing strengths in the target area of Software Engineering.

To apply, go to: <http://employment.unl.edu> and complete the Faculty/Administrative application. Applicants should then email a curriculum vitae and statements of research and teaching interests, and arrange for at least three reference letters to be emailed directly, to the CSE Faculty Search Committee at search@cse.unl.edu. Review of applications will begin on December 1st 2005, and will continue until the position has been filled. The position is contingent on the availability of funds.

The official advertisement can be viewed at: <http://cse.unl.edu/search>.

The University of Nebraska is committed to a pluralistic campus community through affirmative action and equal opportunity and is responsive to the needs of dual-career couples. We assure reasonable accommodation under the Americans with Disabilities Act; contact Sebastian Elbaum at (402) 472-2401 for assistance.

University of North Carolina at Charlotte
Department of Software and Information Systems

Tenure-Track Faculty Position

The Department of Software and Information Systems at UNC Charlotte has a tenure-track faculty position available at the assistant professor level. The Department is dedicated to research and education in Software Engineering and Information Technology applications, with emphasis in the areas of Information Integration & Environments and Information Security & Assurance; it offers degrees in at the Bachelors, Masters, and Ph.D. levels. Current faculty members have strong research programs with substantial funding from both federal agencies and industrial partners.

SIS is particularly interested in faculty with research expertise in: Human-Computer Interaction, Software Engineering, Trusted Information Infrastructures, and Trusted Software Development. Research area emphasis and support are reflected in recently established Centers for Visualization and Information Security & Assurance. Highly qualified candidates in other areas will also be considered. Salary will be highly competitive. Applicants must have a Ph.D. in Computer Science, Information Technology, Software Engineering, or a related field, as well as a strong commitment to research and education. For further details please visit www.sis.uncc.edu. Application review will start in January 2006.

Please send a detailed CV together with four references, copies of scholarly publications, and other support material to:

Search Committee Chair
Department of Software and Information Systems
UNC Charlotte
9201 University City Blvd
Charlotte, NC 28223
Email: search-sis@uncc.edu
Women, minorities and individuals with disabilities are encouraged to apply.
UNC Charlotte is an Equal Opportunity/Affirmative Action employer.

University of North Texas
Computer Science and Engineering
Department

Faculty Positions

The Department of Computer Science and Engineering at the University of North Texas invites applications and nominations for one senior and two junior faculty positions in Computer Engineering, Computer Science or related areas to start in Fall 2006. VLSI, Embedded Systems, Secure Architectures, Machine Learning and Visualization are areas of particular interest. However, highly qualified applicants in other areas of Computer Science and Computer Engineering will be considered. The open positions may be filled individually or concurrently with the choice of the senior faculty position. All positions require an earned doctoral degree in Computer Science, Computer Engineering or a related field. Applicants for senior positions must demonstrate an established research record, funding history and national recognition.

The CSE department offers BA and BS, MS and PhD degrees in Computer Science; BS and MS degrees in Computer Engineering. It is anticipated that approval for a PhD in Computer Engineering will be sought in the near future. More information about the department can be found at <http://www.cse.unt.edu/>

Interested persons should send an application including a detailed curriculum vitae and have at least three letters of reference sent to:

Faculty Search Committee
Department of Computer Science
P.O. Box 311366
Denton, Texas, 76203
or electronically to:
faculty_search@cse.unt.edu.
The University of North Texas is an Equal Opportunity/Affirmative Action/ADA employer, committed to diversity in its faculty and educational programs.



Dean
School of Science & Mathematics

The Citadel invites nominations and applications for the position of Founding Dean of the School of Science and Mathematics and the Traubert Chair in Science and Mathematics. Candidates should possess an earned doctorate and have a strong commitment to promoting teaching and research at a predominantly undergraduate institution.

The Dean's primary responsibilities include general administration of the School and oversight of curricular, budgetary, academic program and faculty development matters. The School seeks a proven leader who will provide vision for both undergraduate and graduate programs. The successful candidate will be expected to facilitate and strengthen relations with alumni and the local community. The Dean is expected also to lead the School's fundraising and development efforts in close collaboration with the College's professional development staff.

The Citadel, The Military College of South Carolina, was founded in 1842 and is located in historic Charleston, South Carolina. It is a unique, coeducational state-assisted institution committed to educating principled leaders in a challenging intellectual environment. The School of Science and Mathematics offers both graduate and undergraduate degrees in Biology; Health, Exercise and Sport Science; and Mathematics and Computer Science and undergraduate degrees in Chemistry (ACS-accredited) and Physics. There are approximately 320 undergraduate and 75 graduate students in these programs. The School has 43 full-time faculty members actively engaged in teaching, research, and service.

- Minimum qualifications:
- Earned doctorate in a basic sciences field or from one of the disciplines included in the School and demonstrated evidence of distinguished teaching, research, and significant scholarly work to qualify for appointment as a tenured full professor.
 - A proven record of administrative experience in higher education that should include skills in planning, faculty development, budgeting and resource development.
 - Strong interpersonal, communication, and decision-making abilities to interact effectively with the public and a commitment to excellence and diversity in the recruitment and retention of students, faculty, and staff.
 - Commitment to shared governance and the values of educational excellence and service consistent with the mission and core values of The Citadel.
 - Proven ability to:
 - Develop and maintain relationships with external constituencies
 - Acquire external resources through grants, contracts and gifts
 - Work effectively and collaboratively with the faculty at departmental and college levels
 - Foster teaching, research and professional development in a student-centered environment

Compensation is highly competitive and commensurate with education and experience. Applications should include a statement of educational and leadership philosophy; curriculum vitae; a Citadel application (www.citadel.edu/hr); and the names, mailing, e-mail addresses, and telephone numbers of at least three references. Applications, inquiries and nominations should be directed to: Dr. Michael R. Ferrari, Senior Vice President and Managing Director, Higher Education Practice, EFL Associates, 2275 Half Day Road, Suite 350, Bannockburn, Illinois 60015. Phone: 847-821-2797. E-mail: mferrari@eflassociates.com. Please reference job #EA-02CRA. The review of nominations and applications will begin on November 15, 2005 and continue until an appointment is made (122649).

The Citadel is an affirmative action/ equal opportunity employer actively committed to ensuring diversity in all campus employment.



Professional Opportunities

University of Notre Dame
Department of Computer Science and Engineering
Faculty Positions

Department of Computer Science and Engineering at the University of Notre Dame (<http://www.cse.nd.edu>) invites faculty applications. Rank and area of specialty are open, but applicants are especially welcome in software engineering (broadly defined), machine learning / data mining / AI, bioinformatics, VLSI / architecture, and algorithms. Outstanding senior applicants are strongly encouraged.

Our faculty are actively engaged in high-quality, externally-funded research in a variety of areas. The blend of small class size, low teaching load, and a “PhD only” graduate program allows us to emphasize true excellence in both research and teaching. Faculty must be committed both to quality teaching at the undergraduate level and to an externally-funded research program of major prominence.

Notre Dame is ranked among the top 20 national universities in the most recent US News and World Report survey. Notre Dame’s heritage and values are unique among top-ranked national universities, resulting in a distinctive character of campus life.

Screening of applications will begin immediately and continue until the positions are filled. Applicants should send cover letter, cv, statement of research interests, statement of teaching interests, and names and addresses of at least three references to:

facultysearch@cse.nd.edu.
PDF submissions are preferable.

University of Oregon
Computer and Information Science
Faculty Position

The Department of Computer and Information Science invites applications for one tenure-track faculty position open for fall 2006. The department’s primary recruiting emphases are in the areas of networking, programming languages and distributed informatics. Programming languages is broadly construed to include compiler construction, domain-specific languages, program analysis, etc. Distributed informatics may include distributed database systems, web engineering, distributed document architecture, and other aspects of future distributed information systems. Networking areas of interest include but are not limited to network security, measurement, forensics, multimedia streaming, peer-to-peer systems, and group communication. Outstanding applicants in other areas may also be considered. Applicants must have a Ph.D. in computer science or a closely related field, a demonstrated record of excellence in research, a strong commitment to teaching as well as a commitment to diversity. We are recruiting primarily at the assistant professor level, but exceptional candidates may be considered for the rank of associate professor.

The CIS department has seventeen research faculty and two senior instructors and offers B.S., M.S., and Ph.D. degrees. We offer a stimulating and friendly environment for collaborative research both within the department and with other departments on campus. The CIS Department is associated with the Computational Intelligence Research Laboratory, the Cognitive and Decision Sciences Institute, the Computational Science Institute, and the Neuro-Informatics Center. More information about the department, its programs and faculty can be found at <http://www.cs.uoregon.edu>, or mail your request to:

University of Oregon
Dept. of Computer and Information Science
Eugene, OR 97403-1202

The University of Oregon is an AAU research university located in Eugene and within one hour drive of both the Pacific Ocean and the snow-capped Cascade Mountains.

Applicants should send their curriculum vitae, names of at least four references, a statement of research and teaching interests and selected publications to:

Faculty Search Committee
Dept. of Computer and Information Science
University of Oregon
Eugene, OR 97403-1202
Email: faculty.search@cs.uoregon.edu.
Review of applications will begin in December 2005 and continue until the position is filled.

The University of Oregon is an Equal Opportunity/Affirmative Action institution committed to cultural diversity and compliance with the Americans with Disabilities Act.

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, 2006. Tenured appointments will also be considered. Faculty duties include teaching undergraduate and graduate students and conducting high-quality research.

Successful applicants will find Penn to be a stimulating environment conducive to professional growth. The Department of Computer and Information Science is undergoing a major expansion, including new faculty positions and a new building, Levine Hall, which was opened in April 2003. Over the last few years, we have successfully recruited faculty in artificial intelligence, computer architecture, databases, machine vision, programming languages, and security. We are now especially interested in candidates in graphics and animation, systems and networking, bioinformatics and computational biology, and computational linguistics, although outstanding candidates in other areas might also be considered.

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, the Wharton School, the Annenberg School of Communication, Nursing, Law, and Fine Arts. The University campus and the Philadelphia area support a rich diversity of scientific, educational, and cultural opportunities, major technology-driven industries such as pharmaceuticals, finance, and aerospace, as well as attractive urban and suburban residential neighborhoods. Princeton and New York City are within commuting distance.

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 four 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, 2006 to be assured full consideration. Applications will be accepted until positions are filled. Questions can be addressed to: faculty-search@central.cis.upenn.edu.

The University of Pennsylvania values diversity and seeks talented students, faculty and staff from diverse backgrounds.

The University of Pennsylvania does not discriminate on the basis of race, sex, sexual orientation, gender identity, religion, color, national or ethnic origin, age, disability, or status as a Vietnam Era Veteran or disabled veteran in the administration of educational policies, programs or activities; admissions policies; scholarship and loan awards; athletic, or other University administered programs or employment. 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
Tenure-Track Position

The Department of Computer Science at the University of Pittsburgh is seeking applications for a full-time tenure-track position to begin in the Fall Term 2006, pending budgetary approval. The appointment is at the Assistant Professor level or above, depending on the credentials of the applicant. While we are seeking outstanding candidates in all areas of Computer Science, we specifically encourage applications from candidates whose research is in bioinformatics or cyber-security. Responsibilities include research, supervision of graduate student research (PhD and MS), and graduate and undergraduate teaching. Candidates should have a PhD in Computer Science or closely related area and should demonstrate exceptional research potential and teaching ability. Candidates for a senior position should have a strong record of research accomplishments and leadership. Applications should be complete on-line at:

<http://www.cs.pitt.edu/recruiting>.
Please direct your inquiries to faculty-search@cs.pitt.edu. Applications must be completed by January 10, 2006 to ensure full consideration.

The Department provides a stimulating environment for research and teaching that results in strong graduate and undergraduate programs. The Department has strong research programs in the core areas of Computer Science, and is a partner in many cross-disciplinary programs including Computer Engineering, Scientific Computing, Intelligent Systems, Telecommunications and Computational Biology. Departmental resources include extensive computing facilities of over 600 workstations, servers and personal computers with multimedia capabilities and specialized networks and devices. Faculty members also have access to additional high performance computing platforms provided by the University as well as by the Pittsburgh Supercomputing Center (of which the University of Pittsburgh is a founding member). For further information about the Department please see <http://www.cs.pitt.edu>.

The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer. Women and members of minority groups under-represented in academia are especially encouraged to apply.

University of Puerto Rico at Mayagüez
Department of Electrical and Computer Engineering
Tenure-Track positions

The Department of Electrical and Computer Engineering (ECE) of the University of Puerto Rico at Mayagüez (UPRM) invites applications for tenure-track positions in Computer Science. The Department is interested in attracting faculty in the areas of databases, and distributed systems and grid computing or software engineering (e.g. agile software development). Candidates are expected to make important contributions to research activities being conducted under the doctoral program in Computing and Information Sciences and Engineering (CISE), either by enhancing and strengthening current projects or starting new research tracks. Applicants must possess a PhD degree in Computer Science or closely related field, and demonstrate strong potential for excellence in research.

The ECE Department offers a Baccalaureate and Masters in Computer Engineering and the PhD in CISE jointly with the UPRM Department of Mathematics. For further information please visit www.ece.uprm.edu and www.phd.cise.uprm.edu or call 1-787-833-3338.

Applications with a curriculum vitae, three reference letters, and MS and PhD original transcripts, may be sent no later than January 15th 2006, to:

CISE Search Committee
University of Puerto Rico at Mayagüez
P.O. Box 5028
Mayagüez Puerto Rico 00681
Or in pdf format to: cisephd@ece.uprm.edu
Appointments will be made by July 1st 2006.

UPRM is an equal opportunity affirmative action employer.

University of Texas at Austin
Department of Computer Sciences
Tenure-Track Position

The Department of Computer Sciences of the University of Texas at Austin invites applications for tenure-track positions at all levels. Excellent candidates in all areas will be seriously considered.

If the successful candidate for an Assistant Professor position is a woman, the department can offer her support from the Clare Boothe Luce Professorship. For details, please see http://oea.cs.utexas.edu/articles/index2005/luce_boothe.html

All tenured and 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 expected to pursue an active research program, to teach both graduate and undergraduate courses, and to supervise graduate students.

The department is ranked among the top ten computer science departments in the country. It has 43 tenured and tenure-track faculty members across all areas of computer science. The department 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 also a center for high-technology industry, including companies such as IBM, Dell, Freescale Semiconductor, Advanced Micro Devices, National Instruments, AT&T, CSC, Intel, Samsung. For more information please see the department web page: <http://www.cs.utexas.edu/>.

The department prefers to receive applications online, beginning November 1, 2005. To submit yours, please visit: <http://recruiting.cs.utexas.edu/faculty/>. If you cannot apply online, please send a curriculum vita, home page URL, description of research interests, and selected publications, and ask three referees to send letters of reference directly to:

Faculty Search Committee
Department of Computer Sciences
The University of Texas at Austin
1 University Station, C0500
Austin, Texas 78712-0233

Inquiries about your application may be directed to faculty-search@cs.utexas.edu

For full consideration, please apply by January 15, 2006. Women and minority candidates are especially encouraged to apply. The University of Texas is an Equal Opportunity Employer.

The University of Texas at Dallas
Eric Jonsson School of Engineering and Computer Science
Department of Computer Science
Faculty Position – Computer Systems

The Department of Computer Science of the University of Texas at Dallas, invites applications for a tenure-track faculty position in Computer Systems and related areas at the assistant professor level, starting Spring, Summer or Fall 2006. Candidates must have a Ph.D. degree in Computer Science, Software Engineering, Computer Engineering or equivalent. Candidates should have a great potential for excellence in research, teaching and external funding. A significant start-up package has been budgeted for this position.

The Department offers Ph.D. degrees in Computer Science, Software Engineering; M.S. degrees in Computer Science with emphases (tracks) on Networks and Telecommunications, Traditional Computer Science, Intelligent Systems, and a Major in Software Engineering; Bachelor’s degrees in Computer Science and Software Engineering (the first in the State of Texas). In addition, the department is part of Ph.D. and master’s programs in two interdisciplinary fields, Computer Engineering and Telecommunications Engineering, whose faculty consists of members from Computer Science and Electrical Engineering. Currently the Department has a total of 43 tenure-track faculty and 11 senior lecturers. In addition to individual faculty workstations, the department has many computer/research laboratories, equipped with around 300 high performance workstations and high-end PCs. The Academic Computer Center supports both UNIX based workstations and PCs as well as high-speed dial-in access to campus computing facilities.

The University is located in the most attractive suburbs of the Dallas metropolitan area. There are over 900 high-tech companies within 5 miles of the campus, including Texas Instruments, Nortel Networks, Alcatel, Ericsson, Hewlett-Packard, Nokia, Fujitsu, MCI, EDS, and Perot Systems. Almost all the country’s leading telecommunication’s companies have major research and development facilities in our neighborhood. Opportunities for joint university-industry research projects are excellent. The Jonsson School has experienced very rapid growth in recent years and will become a top-ranked engineering school within the next five years. Based in large part on a 5-year, \$300 million initiative involving the State of Texas, the University of Texas System, and Texas Instruments, the School is strengthening and expanding its programs by recruiting outstanding faculty and Ph.D. students, increasing funded research, and establishing new programs (see www.ecs.utdallas.edu/welcome.html). For more information, contact Dr. D.T. Huynh, Department Head, at 972-883-2169, or send e-mail to cs-search@utdallas.edu, or view the Internet Web page at <http://www.utdallas.edu/dept/cs/>. The search committee will begin evaluating applications as soon as possible and will continue until the positions are filled.

Applicants should mail their resume with a list of at least five academic or professional references as soon as possible to:

Academic Search # 774
The University of Texas at Dallas
P.O. Box 830688, M/S AD 23
Richardson, TX 75083-0688

The University of Texas at Dallas is an Equal Opportunity Affirmative Action employer and strongly encourages applications from candidates who would enhance the diversity of the University’s faculty and administration.

Professional Opportunities

The University of Texas at Dallas
Eric Jonsson School of Engineering and Computer Science
Department of Computer Science
Faculty Positions

The Department of Computer Science of the University of Texas at Dallas invites applications from outstanding applicants for tenure-track faculty positions in all areas, at all levels, starting Spring, Summer or Fall 2006. Candidates must have a Ph.D. degree in Computer Science, Software Engineering, Computer Engineering or equivalent. The successful applicants must have a distinguished research and publication record. Applicants for senior positions must have an outstanding funding record and demonstrated leadership ability in developing and expanding funded research programs. Positions for Distinguished Chaired Professors are available.

The Department offers Ph.D. degrees in Computer Science, Software Engineering; M.S. degrees in Computer Science with emphases (tracks) on Networks and Telecommunications, Traditional Computer Science, Intelligent Systems, and a Major in Software Engineering; Bachelor's degrees in Computer Science and Software Engineering (the first in the State of Texas). In addition, the department is part of Ph.D. and master's programs in two interdisciplinary fields, Computer Engineering and Telecommunications Engineering, whose faculty consists of members from Computer Science and Electrical Engineering. Currently the Department has a total of 43 tenure-track faculty and 11 senior lecturers. In addition to individual faculty workstations, the department has many computer/research laboratories, equipped with around 300 high performance workstations and high-end PCs. The Academic Computer Center supports both UNIX based workstations and PCs as well as high-speed dial-in access to campus computing facilities.

The University is located in the most attractive suburbs of the Dallas metropolitan area. There are over 900 high-tech companies within 5 miles of the campus, including Texas Instruments, Nortel Networks, Alcatel, Ericsson, Hewlett-Packard, Nokia, Fujitsu, MCI, EDS, and Perot Systems. Almost all the country's leading telecommunication's companies have major research and development facilities in our neighborhood. Opportunities for joint university-industry research projects are excellent. The Jonsson School has experienced very rapid growth in recent years and will become a top-ranked engineering school within the next five years. Based in large part on a 5-year, \$300 million initiative involving the State of Texas, the University of Texas System, and Texas Instruments, the School is strengthening and expanding its programs by recruiting outstanding faculty and Ph.D. students, increasing funded research, and establishing new programs (see www.ecs.utdallas.edu/welcome.html). For more information, contact Dr. D.T. Huynh, Department Head, at 972-883-2169, or send e-mail to cs-search@utdallas.edu, or view the Internet Web page at <http://www.utdallas.edu/dept/cs/>. The search committee will begin evaluating applications as soon as possible and will continue until the positions are filled.

Applicants should mail their resume with a list of at least five academic or professional references as soon as possible to:
Academic Search #771
The University of Texas at Dallas
P.O. Box 830688, M/S AD 23
Richardson, TX 75083-0688
The University of Texas at Dallas is an Equal Opportunity Affirmative Action employer and strongly encourages applications from candidates who would enhance the diversity of the University's faculty and administration.

The University of Texas at Dallas
Eric Jonsson School of Engineering and Computer Science
Department of Computer Science
Faculty Position – Computer Graphics

The Department of Computer Science of the University of Texas at Dallas, invites applications for a tenure-track faculty position in Computer Graphics and related areas at the associate or full professor level, starting Spring, Summer or Fall 2006. Candidates must have a Ph.D. degree in Computer Science, Software Engineering, Computer Engineering or equivalent. Candidates should have an excellent record in research, teaching and external funding. A significant start-up package has been budgeted for this position.

The Department offers Ph.D. degrees in Computer Science, Software Engineering; M.S. degrees in Computer Science with emphases (tracks) on Networks and Telecommunications, Traditional Computer Science, Intelligent

Systems, and a Major in Software Engineering; Bachelor's degrees in Computer Science and Software Engineering (the first in the State of Texas). In addition, the department is part of Ph.D. and master's programs in two interdisciplinary fields, Computer Engineering and Telecommunications Engineering, whose faculty consists of members from Computer Science and Electrical Engineering. Currently the Department has a total of 43 tenure-track faculty and 11 senior lecturers. In addition to individual faculty workstations, the department has many computer/research laboratories, equipped with around 300 high performance workstations and high-end PCs. The Academic Computer Center supports both UNIX based workstations and PCs as well as high-speed dial-in access to campus computing facilities.

The University is located in the most attractive suburbs of the Dallas metropolitan area. There are over 900 high-tech companies within 5 miles of the campus, including Texas Instruments, Nortel Networks, Alcatel, Ericsson, Hewlett-Packard, Nokia, Fujitsu, MCI, EDS, and Perot Systems. Almost all the country's leading telecommunication's companies have major research and development facilities in our neighborhood. Opportunities for joint university-industry research projects are excellent. The Jonsson School has experienced very rapid growth in recent years and will become a top-ranked engineering school within the next five years. Based in large part on a 5-year, \$300 million initiative involving the State of Texas, the University of Texas System, and Texas Instruments, the School is strengthening and expanding its programs by recruiting outstanding faculty and Ph.D. students, increasing funded research, and establishing new programs (see www.ecs.utdallas.edu/welcome.html). For more information, contact Dr. D.T. Huynh, Department Head, at 972-883-2169, or send e-mail to cs-search@utdallas.edu, or view the Internet Web page at <http://www.utdallas.edu/dept/cs/>. The search committee will begin evaluating applications as soon as possible and will continue until the positions are filled.

Applicants should mail their resume with a list of at least five academic or professional references as soon as possible to:
Academic Search # 773
The University of Texas at Dallas
P.O. Box 830688, M/S AD 23
Richardson, TX 75083-0688
The University of Texas at Dallas is an Equal Opportunity Affirmative Action employer and strongly encourages applications from candidates who would enhance the diversity of the University's faculty and administration.

The University of Texas at Dallas
Eric Jonsson School of Engineering and Computer Science
Department of Computer Science
Endowed Chair in Software Engineering

The Department of Computer Science of the University of Texas at Dallas invites applications from outstanding applicants for a distinguished chaired position in Software Engineering and related areas, starting Spring, Summer or Fall 2006. Candidates must have a Ph.D. degree in Computer Science, Software Engineering, Computer Engineering or equivalent. The successful candidate must have a distinguished research and publication record, and demonstrated leadership ability in developing and expanding funded research programs. A significant start-up package has been budgeted for this position.

The Department offers Ph.D. degrees in Computer Science, Software Engineering; M.S. degrees in Computer Science with emphases (tracks) on Networks and Telecommunications, Traditional Computer Science, Intelligent Systems, and a Major in Software Engineering; Bachelor's degrees in Computer Science and Software Engineering (the first in the State of Texas). In addition, the department is part of Ph.D. and master's programs in two interdisciplinary fields, Computer Engineering and Telecommunications Engineering, whose faculty consists of members from Computer Science and Electrical Engineering. Currently the Department has a total of 43 tenure-track faculty and 11 senior lecturers. In addition to individual faculty workstations, the department has many computer/research laboratories, equipped with around 300 high performance workstations and high-end PCs. The Academic Computer Center supports both UNIX based workstations and PCs as well as high-speed dial-in access to campus computing facilities.

The University is located in the most attractive suburbs of the Dallas metropolitan area. There are over 900 high-tech companies within 5 miles of the campus, including Texas Instruments, Nortel Networks, Alcatel,

Ericsson, Hewlett-Packard, Nokia, Fujitsu, MCI, EDS, and Perot Systems. Almost all the country's leading telecommunication's companies have major research and development facilities in our neighborhood. Opportunities for joint university-industry research projects are excellent. The Jonsson School has experienced very rapid growth in recent years and will become a top-ranked engineering school within the next five years. Based in large part on a 5-year, \$300 million initiative involving the State of Texas, the University of Texas System, and Texas Instruments, the School is strengthening and expanding its programs by recruiting outstanding faculty and Ph.D. students, increasing funded research, and establishing new programs (see www.ecs.utdallas.edu/welcome.html). For more information, contact Dr. D.T. Huynh, Department Head, at 972-883-2169, or send e-mail to cs-search@utdallas.edu, or view the Internet Web page at <http://www.utdallas.edu/dept/cs/>. The search committee will begin evaluating applications as soon as possible and will continue until the positions are filled.

Applicants should mail their resume with a list of at least five academic or professional references as soon as possible to:
Academic Search # 772
The University of Texas at Dallas
P.O. Box 830688, M/S AD 23
Richardson, TX 75083-0688
The University of Texas at Dallas is an Equal Opportunity Affirmative Action employer and strongly encourages applications from candidates who would enhance the diversity of the University's faculty and administration.

University of Vermont
Computer Science Department
Faculty Position(s)

The Department of Computer Science in the College of Engineering and Mathematical Sciences at the University of Vermont invites applications for one (and possibly two) tenure-track faculty, commencing with the 2006-07 academic year, at the Assistant Professor level.

The Department of Computer Science offers Master's and PhD programs in the Graduate College, and undergraduate programs in the College of Engineering and Mathematical Sciences and the College of Arts and Sciences, as well as a joint program with the School of Business Administration. Our existing faculty in Computer Science are involved in the forefront of research in computational sciences (including computational biology), computer security, data mining, database systems, knowledge-based systems, pattern recognition, and programming languages, that complements University-wide initiatives in computational sciences, energy/environment, and life sciences. Priority consideration will be given to applicants with scholarly interests and experience that further strengthen our existing research and teaching activities in these areas. Candidates for the possible second position will need a demonstrated research interest in computational biocomplexity. We are especially soliciting applications from scholars who will develop innovative approaches to computer science education geared toward preparing the national leaders. We encourage and support faculty diversity, thus, the successful candidates will have an understanding and commitment to diversity.

Founded in 1791, the University of Vermont is considered a public ivy and is consistently ranked as one of the top public universities in the United States. The University is located in Burlington, Vermont which has been often rated as the best small city in America. The greater Burlington area comprises approximately 125,000 inhabitants, and enjoys a panoramic setting on the shores of Lake Champlain between the Green Mountains of Vermont and the Adirondack Mountains of New York. Burlington and the surrounding area provide an environment rich in cultural and recreational activities. There are ample opportunities for interactions with local industries. The College of Engineering and Mathematical Sciences is in a significant growth mode, poised to explode onto the national scene, and the new faculty members are expected to be instrumental in this process.

Candidates should have an earned doctorate in an appropriate discipline, a proven record of scholarly activities and the ability to teach multiple courses in a traditional computer science undergraduate curriculum. Successful candidates will be expected to make significant and balanced contributions to both teaching and research, including the development of a nationally-respected and externally funded research program. Current teaching responsibilities typically consist of

three computer science courses per year with average enrollments of 25 students.

Please upload your application at the University's recruiting website (via <<http://www.cs.uvm.edu/>>) with a curriculum vitae, a statement of teaching experience and interests, a statement of research interests and aspirations to; and arrange for at least three letters of reference to be sent to:

Faculty Search
Department of Computer Science
University of Vermont
33 Colchester Avenue
351 Votey Building
Burlington, VT 05405
Complete applications received by January 23, 2006 will be fully considered. For more information about the Department, the College, and the University please see <http://www.cs.uvm.edu> or email to cssearch@cem.uvm.edu.

The University of Vermont is an Affirmative Action/Equal Opportunity employer and encourages applications from women and members of minority groups.

University of Victoria
Department of Computer Science
Faculty Positions

Applications are invited for two regular tenure track positions at the Assistant Professor level. Applicants in all areas of computer science will be considered. However, one position is designated to be in the area of computer graphics and/or human computer interaction with a preference for research interests and a record in rendering and/or animation.

Duties will include teaching at the undergraduate and graduate levels, graduate student supervision, and research. Applicants should possess a Ph.D. in an appropriate field, a strong research record, and a strong commitment to teaching. Full details may be found at:

<http://www.csc.uvic.ca/career/index.html>
The University of Victoria is an equity employer and encourages applications from women, persons with disabilities, visible minorities, aboriginal peoples, people of all sexual orientations and genders, and others who may contribute to the further diversification of the University. The University has excellent policies which support faculty with family obligations, including paid maternity/parental leave and a generous pension plan.

The University of Virginia
Department of Computer Science
Tenure-Track faculty positions

The Department of Computer Science at the University of Virginia invites applications for tenure track faculty positions at all levels and in all areas of computer science. These positions are intended for outstanding individuals who are committed both to excellence in research, education, and service, and to diversity in the community.

The University of Virginia ranks consistently as one of the top public universities in the country. Its highly valued Department of Computer Science has a diverse population with more than 300 undergraduate students, 110 graduate students, and 28 faculty members. The department offers baccalaureate, masters, and doctoral degrees in Computer Science and Computer Engineering. The department is undergoing significant growth and programmatic evolution and aims to be one of the top departments in experimental systems research and the leading institution in undergraduate computer science education. Its existing strengths include algorithms, architecture, compilers, distributed systems, graphics, grid computing, mobile computing, networks, operating systems, programming environments, real-time and embedded systems, security, wireless sensor networks, and software engineering.

Candidates must have an earned doctorate in an appropriate discipline and a genuine desire to contribute to the Department's goal of becoming a world-class computer science institution.

Applicants should submit a letter of application, curriculum vitae, URLs of selected reprints, and statements of research plans and teaching interests and philosophy. Applicants should also ensure that at least three letters of recommendation are sent directly to the Department.

We prefer the electronic submission of application materials in PDF form by email to positions@cs.virginia.edu. If necessary, PS is also acceptable. Application materials can be alternatively mailed to

Professional Opportunities

John A. Stankovic, Search Committee Chair
Department of Computer Science
University of Virginia
151 Engineer's Way
P. O. Box 400740
Charlottesville, VA 22904-4740
Phone: 434-982-2200
Early applications will receive immediate attention. The positions will remain open until filled. Effective start times for these positions are flexible, but preferences are either January 2006 or August 2006. Applicants are encouraged to visit the departmental website for more information at: www.cs.virginia.edu.
The University of Virginia is an equal opportunity, affirmative action employer.

University of Waterloo
School of Computer Science
Tenure-Track Positions

The University of Waterloo invites applications for two tenure-track faculty positions in the School of Computer Science, in the areas of bioinformatics and software security, respectively. Candidates at all levels of experience are encouraged to apply. Successful applicants who join the University of Waterloo are expected to develop and maintain a productive program of research, attract and develop highly qualified graduate students, provide a stimulating learning environment for undergraduate and graduate students, and contribute to the administration of the School. A Ph.D. in Computer Science, or equivalent, is required, with evidence of excellence in teaching and research. Rank and salary will be commensurate with experience, and appointments are expected to commence during the 2006 calendar year.
With over 65 faculty members, the University of Waterloo's School of Computer Science is one of the largest in Canada. It enjoys an excellent reputation in pure and applied research and houses a diverse research program of international stature. Because of its recognized capabilities, the School attracts exceptionally well-qualified students at both undergraduate and graduate levels. In addition, the University has an enlightened intellectual property policy which vests rights in the inventor: this policy has encouraged the

creation of many spin-off companies such as iAnywhere Solutions Inc., Maplesoft Inc. and Open Text Corp. For more information on the School of Computer Science, please see our web page at <http://www.cs.uwaterloo.ca>.
Applications should be sent by electronic mail to:
cs-recruiting@cs.uwaterloo.ca or by post to:
Chair, Advisory Committee on Appointments
School of Computer Science
University of Waterloo
Waterloo, N2L 3G1 Canada
An application should include a curriculum vitae, statements on teaching and research, and the names and contact information for at least three referees. Applicants should ask their referees to forward letters of reference to the address above. Applications will be considered as soon as possible after they are complete, and as long as the positions are available.
The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

The University of Western Ontario
Department of Computer Science
Canada Research Chair in Computer Algebra

The University of Western Ontario seeks to fill a prestigious Canada Research Chair position in the area of Computer Algebra. Western, one of Canada's leading research-intensive universities, seeks to build on existing expertise in computer science and applied mathematics as a world leader in this area. It provides an exceptional multi-disciplinary research environment for mathematical computation and is home to ORCCA, www.orcca.on.ca the largest computing laboratory for symbolic and symbolic-numeric mathematics in North America. The successful candidate would normally be within 10 years of receiving a PhD in Computer Science, Mathematics or a related area to be eligible for the Tier 2 Canada Research Chair

nomination, and the appointment will be at the rank of Assistant or Associate Professor in the Department of Computer Science, depending on experience. See "Employment Opportunities" on the Department's web page www.csd.uwo.ca.
Nominations or direct applications are sought until the position is filled. Please send a detailed curriculum vitae and a statement of research interests to:
Dr. Michael Bauer, Chair
Computer Algebra CRC Nomination Committee
Department of Computer Science
Middlesex College Building
The University of Western Ontario
London Ontario, N6A 5B7 CANADA
The successful candidate will be expected to participate in teaching at the undergraduate and graduate level and to maintain an ongoing program of independently funded research. As appropriate, assistance will be provided in helping to locate suitable spousal employment.
Positions are subject to budget approval. Applicants should have fluent written and oral communication skills in English. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.
The University of Western Ontario is committed to employment equity and welcomes applications from all qualified women and men, including visible minorities, aboriginal people and persons with disabilities.

University of Wisconsin-Madison
Department of Biostatistics and Medical Informatics
Computational Systems Biology Cluster Hire (2 positions)

The Department of Biostatistics and Medical Informatics at the University of Wisconsin-Madison currently has 2 faculty positions for summer/fall of 2006. Candidates must have a Ph.D. in Computer Science or a related field. Post-doctoral training and expertise in computational systems biology desirable.
Applicants should submit a curriculum vitae, a statement of research objectives, sample publications, and arrange for at least three letters of reference to be sent directly to:
Jude Shavlik, Chair
Cluster Hiring Committee
c/o Dept. of Biostatistics & Medical Informatics
K6/444 CSC, Box 4675
600 Highland Ave.
Madison, WI 53792-4675
Additional information is available at: <http://www.biostat.wisc.edu> under employment. Application deadline February 18, 2006.
The University is an Equal Opportunity/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.

University of Wisconsin-Madison
Computer Sciences Department
Faculty Position/Assistant Professor

The Computer Sciences Department at the University of Wisconsin-Madison, consistently ranked among the top ten departments in the nation, has embarked on a multi-year effort to significantly enhance the strengths of the department. As part of this endeavor we have multiple faculty positions available beginning August 2006. We invite applications from outstanding candidates in **all** areas of Computer Science.
Applicants should have a Ph.D. in Computer Science or in a closely related field, and demonstrated strength in scholarly research. Appointment will be at Assistant Professor level. Successful candidates will be expected to teach at the undergraduate and graduate level, in addition to establishing a significant and highly-visible research program.
Applicants should submit a curriculum vitae, a statement of research objectives and sample publications, and arrange for at least three letters of reference to be sent directly to:
Chair, Faculty Recruiting Committee
Computer Sciences Department
University of Wisconsin-Madison
1210 W. Dayton Street
Madison, WI 53706-1685
Applicants are encouraged to submit their applications (along with supporting material) as soon as possible, but no later than January 23, 2006.
The University is an Equal Opportunity/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. For further information, send mail to recruiting@cs.wisc.edu.

University of Wyoming
Department of Computer Science
Open Faculty Position

The University of Wyoming is a research university located in the high plains of the Rocky Mountains. The Computer Science Department of the College of Engineering invites you to apply for a tenure-track faculty position to start at the end of August, 2006.
Candidates must have a Ph.D. in Computer Science or a closely related field. Responsibilities of the position include research, teaching, advising, and service to the University. We prefer candidates with research and teaching interest in a computer systems area – databases, operating systems, compilers, or software engineering. Outstanding applicants with other research and teaching interests will be considered. Applicants at all levels will be considered. Applicants for associate or full professor must have an exceptional research record.
The department offers B.S., M.S., and Ph.D. degrees in Computer Science, as well as a B.S. degree in Management Information Systems.

The university is located in Laramie, Wyoming (pop. 28,000), 130 miles northwest of Denver. Laramie is a friendly town offering a reasonable cost of living; we have clean air, 300 days of sunshine, no traffic jams, and easy access to wilderness activities in the Rocky Mountains with the 12,000 ft. Snowy Range just 35 miles west of town.
To apply, send a curriculum vitae, a statement of teaching interests, and arrange to have at least three letters of reference submitted directly to:
Faculty Search Committee
Computer Science
Department 3315
1000 East University
Laramie, WY 82071
Email: search@cs.uwyo.edu
WWW: <http://www.cs.uwyo.edu/>
Submission by email is acceptable for all application material.
All applications on file by January 9, 2006, will receive full consideration and the search will continue until the position is filled.
The University of Wyoming is an affirmative action/equal opportunity employer.

Vassar College
Department of Computer Science
Tenure-Track Assistant Professor
Fall 2006

Vassar College seeks applications for a tenure-track Assistant Professor starting in the 2006-2007 academic year. A commitment to excellence in undergraduate teaching and research is expected. The Ph.D. in computer science required. Applicants with background in any area of Computer Science will be considered, especially networks and parallel computing. All candidates must be able to cover courses in the core areas of Computer Science.
Vassar College is an equal opportunity/affirmative action employer and is actively committed to diversity within its community. Applications from members of historically under-represented groups are especially encouraged to apply.
Vassar College has been successfully building a strong undergraduate program in Computer Science. Introductory courses are taught using Java and C++. The department has a Macintosh laboratory for introductory instruction, and Sun, Macintosh, and PC laboratories for intermediate and upper-level courses. Faculty are provided with Unix workstations and personal computers. For more information see <http://www.cs.vassar.edu>.
Review of applications will begin January 1, 2006 and continue until the position is filled. Send vitae and three letters of reference to:
Nancy Ide, Chair
Department of Computer Science
Box 732
Vassar College
Poughkeepsie, New York 12604-0732
E-mail: csdept@cs.vassar.edu

Virginia State University
Mathematics & Computer Science
Department
Assistant/Associate Professor (Tenure-Track)
Virginia State University (VSU) is seeking applicants for the position of Assistant/Associate Professor of Computer Science (CS) in the Department of Mathematics and Computer Science.

(continued)

Department of Computer Science
Faculty Positions

Located in Ithaca, N.Y., Cornell University is a bold, innovative, inclusive and dynamic teaching and research university where staff, faculty, and students alike are challenged to make an enduring contribution to the betterment of humanity.

Tenure-Track Positions - All Levels, Ref: APW#1

The Department of Computer Science, in cooperation with the Office of Computing and Information Science (CIS) are part of a strong collaborative structure to promote interdisciplinary research and teaching in computing and information sciences at Cornell University. Encompassing a wide range of research areas including artificial intelligence, concurrency and distributed computing, databases, algorithms, information organization and retrieval, 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, we are especially interested in programming languages, cryptography, systems, databases, scientific computing/numerical methods, and computational biology. We invite outstanding candidates in all areas of computer science to apply.

Research and Research Associate Positions - Ref: RESW#3

Applicants must have a Ph.D. in Computer Science or a closely related field. Successful tenure-track candidates must have demonstrated excellence in research, commitment to teaching, outstanding leadership qualities and enthusiasm for the central role played by computer science in a large research university. Successful candidates at all ranks are expected to pursue an active research program and contribute significantly to the department's teaching programs.

Further information about the department and Faculty of Computing and Information Science is available on the World Wide Web at <http://www.cs.cornell.edu> and <http://www.cis.cornell.edu/>.

Applicants should submit a curriculum vita, brief statements of research and teaching interests and the names of at least three references to: **Faculty Recruiting Committee Chair, Department of Computer Science, 4130 Upson Hall, Cornell University, Ithaca, NY 14853-7501.** Please include reference number with application.



Cornell University
*Cornell University is an Affirmative Action/
Equal Opportunity Employer and Educator.*

<http://chronicle.com/jobs/profiles/2377.htm>

Professional Opportunities

Required Education – earned Doctorate
Position No.: FO036 (Computer Science)
Salary: Commensurate with education & experience

Duties/Responsibilities:

Teach undergraduate courses in CS; assist further development of CS program/ curriculum; provide academic advisement; participate in scholarly and research endeavors; solicit support for the CS program from local industries and governmental organizations; engage in grant/proposal writing; serve on departmental, school and university committees; and prepare for ABET accreditation. Applicants also must possess effective communication and interpersonal skills, an excellent command of written and spoken English, and a strong teaching record at the college level with evidence of research and scholarly achievement.

Qualified applicants should submit a Commonwealth of Virginia Application for Employment (DPT Form 10012) to:

VSU
Office of Human Resources
PO Box 9412
Room 109, Virginia Hall
Petersburg, VA 23806

All applications must be received by 5:00 p.m. November 15, 2005. Faxed and emailed copies will not be considered. Selected candidate must pass a Criminal Background Check. To obtain the state application, please click on this link <http://jobs.state.va.us/eo-appl.htm>.

VSU is an equal opportunity employer.

Virginia Tech, National Capital Region

Research Scientist (Faculty, non-tenure track)

Virginia Tech, National Capital Region, seeks an experienced information technology researcher to work in an applied research, testing, and evaluation center in Arlington, Virginia.

The successful applicant will be expected to develop a strong research program in the broad area of information technology related to national and homeland security, with an emphasis on data mining, entity extraction, visualization, and metrics-based evaluation of software. Successful applicants will also be expected to conduct a vigorous research program that will generate external support through additional grants and contracts.

This position will form part of a team working closely with Arlington County's Office of Emergency Management and with industry. The successful applicant will be expected to develop collaborative projects with Arlington County and with industry partners to enhance public and national security.

Applicants must apply (posting number 042275) online through Virginia Tech Jobs site: jobs.vt.edu

See the site for a detailed job description.

This is a restricted position, renewable upon availability of funding and satisfactory performance.

Virginia Tech is an equal opportunity, affirmative action employer.

Washington University in Saint Louis

Department of Computer Science and Engineering

Tenure-Track Faculty Positions

Building upon the impressive recruiting successes of recent years (sixteen new tenure-track faculty), the Department continues to seek outstanding candidates likely to develop synergistic relationships with existing areas of research excellence. Only candidates having an exceptionally strong record of research accomplishments and a deep commitment to teaching will be considered. Candidates whose research focuses on computer security and computer engineering will receive preferential consideration.

The Department enjoys a great research reputation and impressive levels of research activity, e.g., annual research expenditures in the range of \$250,000 to \$450,000 per faculty member. Our doctoral graduates have been heading for successful careers in academia and industrial research centers. Noteworthy entrepreneurial endeavors attest to a highly respected technology transfer tradition and culture. Strict limits on undergraduate enrollments and the increasing popularity of Washington University allow us to offer small classes and close personal attention to a diverse student body of exceptional quality. A faculty known for its friendly, accepting and supportive nature provides a welcoming and mentoring environment for new arrivals. A supportive administration reaches out to academic couples

seeking to co-locate. Finally, progressive fiscal policies reward research, teaching, and innovation and foster a readiness to invest in promising new initiatives.

Applicants should hold a doctorate in Computer Science, Computer Engineering, or a closely related field. Qualified applicants should submit a complete application (cover letter, curriculum vitae, research statement, teaching statement, and names of at least three references) electronically to recruiting@cse.wustl.edu. Other communications may be directed to:

Dr. Catalin Roman, Chairman
Department of Computer Science and Engineering
Campus Box 1045
Washington University
One Brookings Drive
St. Louis, MO 63130-4899

Applications will be considered as they are received. Those arriving after February 1, 2006, may not be given full consideration.

Washington University is an equal opportunity/affirmative action employer.

West Virginia University

College of Engineering and Mineral Resources

Lane Department of Computer Science and Electrical Engineering

Tenure-Track Faculty Positions

The Lane Department of Computer Science and Electrical Engineering at West Virginia University (WVU) anticipates filling one or more tenure-track faculty positions at the Assistant Professor level, subject to availability of funds. Four areas of particular interest have been identified: Artificial intelligence, with emphasis on data mining and machine learning. Computer networking, security, architectures and embedded systems Distributed optimization and control of electric power systems Nanostructured optoelectronic devices and biosensors Applicants must have a Ph.D. in Computer Science, Computer Engineering, Electrical Engineering or a closely related discipline at the time of appointment. Candidates must have demonstrated ability or potential to contribute to the research and teaching missions of the department.

The department has 31 tenure-track faculty members, 450 undergraduates, and 300 graduate students, and offers BS degrees in Computer Science, Computer Engineering, Electrical Engineering and Biometric Systems; offers MS degrees in computer science, software engineering, and electrical engineering; and offers Ph.D. degrees in Computer Science, Computer Engineering and Electrical Engineering. The department conducts approximately \$5.6 million annually in externally sponsored research, with major research activities in the areas of biometric systems, bioengineering, information assurance, nanotechnology, power systems, software engineering, virtual environments, and wireless networks. The department is home to the NSF Center for Identification Technology Research (www.citer.wvu.edu), and is aggressively upgrading its laboratory facilities, including a recently completed 4000 square foot clean room facility.

WVU is a comprehensive land grant institution of over 26,000 students with health sciences, law, and business schools. The University has Carnegie Doctoral/Research-Extensive standing. The department has a close working relationship with and receives funding from a growing list of government and industry sources, including DOE, DOD, NASA, NIOSH, and the FBI Fingerprint Identification Center.

Review of applications will begin December 15, 2005 and continue until positions are filled. Women and minorities are encouraged to apply. Applicants should send a letter describing their qualifications, a curriculum vitae, statements of teaching philosophy and research objectives, and the names of 3 references via e-mail to:

Professor Powsiri Klinkhachorn, Chair
Faculty Search Committee Chair
Lane Department of Computer Science and Electrical Engineering
P.O. Box 6109
West Virginia University
Morgantown, WV 26506-6109
Telephone: 304-293-5263 x2522
Web: <http://www.csee.wvu.edu>
klinkhachorn@mail.wvu.edu

West Virginia University is an equal opportunity/affirmative action employer.

Williams College

Department of Computer Science

Tenure-Track Position

The Department of Computer Science at Williams College invites applications for a tenure-track opening at the Assistant Professor level beginning in fall of 2006. A more senior appointment is possible in exceptional circumstances. New faculty will join six current members of the department in supporting a thriving undergraduate computer science major. Candidates should have a commitment to excellence in teaching, an active research program, and should, by September 2006, possess a Ph.D. in computer science or a closely related discipline.

Williams College is a highly selective, coeducational liberal arts college of 2100 students located in the scenic Berkshires of western Massachusetts. The Department of Computer Science offers a congenial working environment with small classes, excellent students, and state-of-the-art facilities. Many opportunities exist for collaboration across

disciplines, particularly with other faculty in the sciences. Faculty will normally teach three courses each year, along with associated labs.

Applications should include a curriculum vitae, teaching and research statements, and contact information for three references, at least one of whom can evaluate the candidate's promise as a teacher. Candidates should ask their references to send letters directly to the search committee.

Applications, letters, and questions about the position should be addressed to:

Prof. Andrea Danyluk, Chair
Department of Computer Science
47 Lab Campus Drive
Williams College
Williamstown, MA 01267

or andrea@cs.williams.edu.

Applications received by January 1, 2006 will receive full consideration.

As an equal opportunity, affirmative action employer, Williams College strongly encourages women and members of minority groups to apply.

New CRA Report

Cyberinfrastructure for Education and Learning for the Future: A Vision and Research Agenda

See: <http://www.cra.org>

For a hard copy:
e-mail: info@cra.org



The University of New Mexico

Great people doing great things.

Assistant Professor - Computer Science

The Department of Computer Science (<http://www.cs.unm.edu>) invites applications for a probationary appointment leading to a tenure decision position at the level of assistant professor. Preference will be given to applicants with strong interest in interdisciplinary research and with specific research interests in one or more of: computational/theoretical immunology; computational biology & bioinformatics; computational science including simulation, modeling, & numerical methods; knowledge discovery from scientific data; data mining; machine learning; complex & adaptive systems.

This position is supported in part by an NIH Center of Biomedical Research Excellence (COBRE) award which established the Center for Evolutionary and Theoretical Immunology (<http://biology.unm.edu/CETI/>). A generous start-up package is available through the COBRE program for eligible applicants. Eligibility for COBRE support requires that the successful applicant: (1) Must not have previously been a principal investigator on a major federal grant (see NIH RFA-RR-03-014 [<http://grants2.nih.gov/grants/guide/rfa-files/RFA-RR-03-014.html>] for more detailed information); (2) Must be working in, or interested in working in, an area related to the theme of the COBRE award; and (3) Be approved for COBRE program support by an External Advisory Committee and the NIH.

The Department of Computer Science is committed to excellence in both undergraduate and graduate education, with a CAC/ABET accredited BS degree program, as well as MS and Ph.D. programs. Undergraduate enrollment in the department is about 100 students, and graduate enrollment is about 200 students. Our 18 faculty members have active research programs in areas including: algorithmics, artificial intelligence, automated reasoning, biologically inspired computation, computational biology, data mining, graphics and visualization, medical algorithmics, neuroinformatics, programming languages, quantum computation, systems, theory, and vision.

The department enjoys strong research collaborations with the Santa Fe Institute and with Sandia and Los Alamos National Laboratories. UNM Computer Science also has strong interdisciplinary research activities with the School of Medicine and the departments of Biology, Computer Engineering, Linguistics, Neuroscience, Physics, and Psychology. The department is also associated with the UNM Center for High Performance Computing and the Arts Technology Center in the College of Fine Arts.

The University of New Mexico is a Carnegie Doctoral/Research University-Extensive, a Minority Institution and a Hispanic Serving Institution, with approximately 30,000 students on the main and branch campuses. The University of New Mexico is located in Albuquerque, New Mexico, an ethnically diverse city with rich culture and a location offering unparalleled opportunities for outdoor adventure. The University is located within minutes of the Sandia and Manzano mountain ranges, which offer great opportunities for hiking, biking, rock climbing and skiing.

Candidates must have completed, or be about to complete, a doctorate in Computer Science or a relevant area by August 15, 2006. Applicants must be eligible to become a mentee in the COBRE program, as detailed above. Applicants should demonstrate a strong commitment to undergraduate and graduate education and the ability to establish a nationally visible research program.

For best consideration, applications must be received by January 1, 2006, although we will continue to accept applications until the position is filled. Each application should include a curriculum vitae, a research statement, a teaching statement, and the names of four references. A cover letter should summarize your experience, and must include an original signature.

Printed applications should be sent to:

Stephanie Forrest, Chair, Faculty Search Committee
1 University of New Mexico
Department of Computer Science, MSC 01 1130
Albuquerque, NM 87131-1386

Email inquires should be sent to: faculty_search@cs.unm.edu

The University of New Mexico is an Equal Opportunity/Affirmative Action Employer and Educator.