While there is increased evidence that we are being bogged down today as specialization extends, the investigator is staggered by the finds and conclusions of thousands of other workers—conclusions which he cannot find time to grasp, much less to remember, as they appear. Yet specialization becomes increasingly necessary for progress, and the effort to bridge between disciplines is correspondingly superficial.

The essay goes on to describe a device he called the Memex (Memory Extender), a mechanized hypertext system for managing copious amounts of information for rapid retrieval. This fascinating juxtaposition of discovery as an endless frontier with a technological vision of information retrieval is one that we are only now realizing—with deep-text search, semantic analysis and social tagging tools on the web—after sixty years of research and development. Vision really matters.

Computing research is among the best embodiments of the discovery-drivers, endless frontier. As we look ahead, it is clear our discipline faces both challenges and opportunities: challenges to adjust our culture and raise our aspirations, and opportunities to engage and empower 21st century discovery and innovation both within our field and across diverse disciplines.

Discussing the Future
On November 10, NSF CISE, the CRA and a Computing Community Consortium convened a one-day summit in Washington, DC, to discuss the future of computing research. Attendees included selected heads of major computing departments and information science schools, as well as industrial research leaders. We all came together to discuss some key questions:

• Are there signs and guideposts for how to move the field forward most effectively—especially without losing the essence of our identity and the strength of our contributions?
• What is the appropriate balance between curiosity-driven research and technological engagement, the essence of what Donald Stokes called “Pasteur’s Quadrant?”
• As stewards of the field, how do we ensure that the right decision processes are in place—for faculty hiring and promotion, graduate student admissions and mentoring, and funding practices and processes—to create the most vibrant and exciting future?
• How do we enhance our community’s willingness to value professional service, which can increase advocacy for our field both within our own institutions and nationally, leading to the resources needed to fuel innovation?

Discussion Topics
Within the broad framework of these questions, we asked the participants to discuss four topical and timely themes in small groups, with plenary discussions of the small group discussions.

1. Go Outside Your Box.
   The number of opportunities for collaboration continues to grow explosively, both among computing researchers (multidisciplinary collaboration) and among computing and other disciplinary scientists (interdisciplinary collaboration). It is widely recognized that much of the excitement occurs “at the interfaces.” However, we still struggle to hire, promote and support faculty engaged in such collaborations. How do we advise junior faculty on best practices for collaboration? How do we encourage our colleagues in other fields to see us as more than programmers—as experts in transformative, “computational thinking”? What kinds of institutional or organizational barriers do collaborative projects and participants face? As a community, are we ready to build the consensus necessary for “Big Science” collaborations? Even within a narrow field of endeavor, there are opportunities.

Exploring the Frontier
Continued on Page 6
Expanding the Pipeline

The Hard Work of Building Bridges

By Chris Stephenson

The current enrollment crises in computer science and informatics at the post-secondary level have led to a much broader recognition of K-12 education as a critical partner in addressing pipeline and equity issues. The good news is that the current crisis has increased the willingness of many departments and faculty to reach across the educational barriers that have traditionally separated us. The bad news is that many are still not sure how to do so in a way that can lead to sustained improvements at both levels.

By early 2000, ACM was beginning to hear rumors of dropping enrollments in K-12 computer science classes, so it launched the ACM K-12 Task Force to get a better sense of the nature of the problem and its possible ramifications for the pipeline. What was discovered is that a force uncovered can best be described as a multi-layered mess that included real research on what teachers were teaching or how many students were taking computing courses, isolated and discouraged teachers, no curriculum standards, and almost no professional development to help teachers maintain and improve their technical and pedagogical skills.

The Task Force also noted that computer science was the only K-12 discipline with no subject-based professional association operating at the K-12 level. This meant there was nobody to represent and advocate for computer science in an environment: • Subject to significant social and political pressures, • Subject to multiple stakeholders with competing agendas and ideologies, • Subject to the politics of scarcity, • Where the practitioner base is overworked and underpaid, • Where project sustainability is a constant struggle, • Where, real, systemic change is rarely achieved, and • Where incremental change requires commitment, patience, perseverance, and a really good sense of humor.

In 2005, ACM launched the Computer Science Teachers Association (CSTA) with the goal of systematically addressing all of these issues and beginning to rebuild the K-12 system. This meant there was an immediate need to start from scratch. Most programs are problematic. While a small handful of CS and IT departments had launched very successful outreach programs, many had no idea what the issues were in K-12, how to reach or communicate with the teachers, and how to build relationships that would be perceived as mutually beneficial and bring about sustained improvements.

With the support of ACM, as well as a Board of Directors and Advisory Council drawing from all levels of academic computing as well as from industry, CSTA began to transform itself into something of a bridging organization, translating the realities of K-12 to the post-secondary world and vice versa. While CSTA’s mission remained clearly focused on K-12, we began to see the importance of helping post-secondary educators develop more effective outreach programs.

CSTA also began to focus more attention on addressing the broad scope of equity issues affecting K-12 computer science education. As part of its research work, CSTA began collecting data on the percentage of women and minority students in high school computing classes. It also began developing resources (on its own and in partnership with other organizations) specifically targeted at these student populations (http://csta.acm.org/Careers/sub/ ClassroomCareersResources.html).

As a result of this work, we now have a very good idea of what does and does not work when it comes to K-12 outreach, and we have found that successful outreach programs have the following things in common:

• The outreach team has taken the time to identify what local teachers need (often by actually talking to them) and focused their program on meeting those needs.
• The goal of the outreach is building longterm relationships. As you can imagine, teachers are less receptive when they know that you are only calling them because you need to do something.
• Every communication from the outreach team clearly identifies the return on investment for the K-12 teachers. Recruiting more students for your program is not enough.
• Engagement with minority populations is significantly enhanced by a solid relationship with the target community. This is especially true for projects focusing on Hispanic students where whole-family involvement can significantly enhance the project’s reach and impact.
• The outreach tradition includes K-12 teachers who provide valuable contextual information on the realities of teaching in today’s schools.

The final issue that may actually be the most problematic is that institutions that want to do successful outreach to K-12 must dedicate resources (both fiscal and human) to the effort. Too often, the task of doing the K-12 outreach is handled off to junior (untenured) faculty with no time and does not really mean something to faculty (such as tenure or release time).

The bottom line is that, as organizations and educators, we need to work together to build and strengthen this bridge between K-12 and post-secondary education if we are to have any hope of addressing the critical pipeline issues that affect us. This is important work. It needs to be done. And it should count.

Chris Stephenson is the Executive Director of the Computer Science Teachers Association.

CRA-W
Anita Borg Early Career Award
Nomination Deadline
February 15, 2009
Details: http://www.cra.org/Activities/craw/borg/index.php

Page 2
Outstanding Undergraduate Award Winners Announced

The Computing Research Association honors the recipients of its 2009 Outstanding Undergraduate Awards, sponsored this year by Microsoft Research, Mitsubishi Electric Research Labs (MERL) and Microsoft Research sponsor the awards in alternate years.

Winner, Female Award

Rallica Ada Popa is a senior at the Massachusetts Institute of Technology, majoring in Computer Science and Mathematics.

At MIT, Rallica has been involved in three research projects that have resulted in three publications and two in submissions at top conferences. Her research includes: the auditing of computerized elections, cooperative caching techniques for huge databases spread across large numbers of servers, and computing useful statistics or functions about the movement of cars (e.g., automatic toll collection) without violating the privacy of drivers by revealing the position of any particular car.

After spending her freshman year at Cal Tech, Ralica transferred to MIT, maintaining a perfect GPA at both institutions. In the summer between, Ralica worked on a research project at the University of Illinois that resulted in a paper at SOSP. It is rare indeed for anyone to be on track to be an author on papers based on research in each undergraduate year. She also has served as an undergraduate tutor for the Office of Minority Education at MIT, and currently participates in the Women’s Outreach Program for Undergraduates.

Winner, Male Award

Tal Ruzak is a senior at Cornell University, majoring in Computer Science. Tal has been involved in research since freshman year, resulting in seven first-authored publications and presentations.

Current research involves discovering the structure of low-power wireless networks by applying analytical methods to novel computing systems. Results show effective ways to simulate such networks and have suggested novel statistical properties of wireless links. Tal’s work won the Best Paper Award at the international ACM MSWiM’08 conference and First Place in the ACM Student Research Competitions at MobisCom’08 and SIGCSE’08. His paper has been invited for journal publication and several additional papers are currently in preparation. Concurrently, Tal is working on a research and development project to design and implement a user-friendly web-based course planning and audit system, with a paper submitted for publication. Previously, Tal studied the efficient simulation of electronic sensor devices, including the CoMoS sensor and a nanotube-enabled chemosensitive sensor, results were published at the IEEE EDS’07 conference.

Tal maintains a perfect GPA, has served as a teaching assistant and peer tutor for undergraduate students, and serves on the Student Library Advisory Council. He volunteers at an afterschool program for elementary school students. Tal has a deep interest in history, and has published a sole-authored paper in an international journal in this field.

Runners Up, Female Award

Erin Cameron is a senior at the University of Virginia, majoring in Computer Science with minors in Applied Mathematics and in Materials Science and Engineering.

At UVA, Erin has been involved in several research projects. Most notable are two involving modeling and simulation. The first concerns simulating the dissolution of alloys, which resulted in a conference paper. The second considers the uncertainties in epidemiological models and their effects on the results. Her work has brought into serious question whether any disease spread model can ever be deemed reliable.

In addition to being a fine student with a near-perfect GPA in her major and minors, Erin has worked as a TA for four semesters, gives her time freely to multiple charitable activities in the Charlottesville community, and holds an executive position in her professional engineering sorority.

Runners Up, Male Award

Arthur Mahoney is a senior at Utah State University, with a double major in Computer Science and Computational Mathematics.

Arthur Mahoney has pursued research in five areas that have resulted in three publications, two of which haveArthur listed as first author. His research includes: parallel path planning in large graphs, altruistic negotiation systems, developing novel parallel algorithms for extremely fast robotic motion planning, massively parallel search strategies for discovering novel cancer therapies, and parallel tools for hydrologic prediction and flood forecasting that scale to massive data sets. In addition to maintaining a perfect GPA, Arthur mentors other students in the Undergraduate Research Program, tutors for the Mathematics and Statistics department, and is the administrator of the Computer Science department’s computer cluster, having designed and put it together himself.

Finalists, Female Award

Dorna Haghparast, McGill University; Sarah Loos, Indiana University; Rachel Miller, University of Virginia; Julia Schwarz, University of Washington; and Melanie Tupper, Dalhousie University.

Finalists, Male Award

Taylor Berp-Kirkpatrick, University of California, Berkeley; Michael DeLais, University of Utah; Peiran Guo, University of California, Berkeley; Kevin Karsch, University of Missouri; Michael Nowlan, Georgetown University; Nathaniel Roman, University of Washington in St. Louis; and Lawson Wong, Stanford University.

Honorable Mention, Female Award

Jessie Berlin, Tufts University; Jenna Cameron, University of Western Ontario; Melanie Clements, New York University; Natalie Reed, Arizona State University; Sahar Hasan, Columbia University; Heather Justice, Harvey Mudd College; Jessica Leung, University of Washington; Samantha Leung, University of British Columbia; Gabriela Marcu, University of California, Irvine; Olena Melnychenko, Pennsylvania State University; Anna Ostberg, University of California, Berkeley; Ian Waters, University of British Columbia; Teodor Moldovan, Brown University; Kurt Murunga, Princeton University; Ian Obermiller, Marquette University; Denis Pankratov, University of Toronto; Mark Pappas, University of Calgary; Adam Raczkowski, Tufts University; Mark Reitblatt, University of Texas at Austin; Michael Ryan, University of California, Los Angeles; Cory Simon, Iowa State University; Devin Smith, Harvey Mudd College; Ian Ye, Columbia University; Ziyu Wang, University of Waterloo; Brian Wongchawart, University of Pittsburgh; and Luke Zarko, University of Pennsylvania.

This year’s selection committee included: Richard Waters (Mitsubishi Electric Research Labs), Chair; Geoff Kuenning (Harvey Mudd College) and Clement Lam (Cambridge University); David Nowick (University of Texas, El Paso); and Lynn Stein (Olin College).

DREU: Distributed Research Experiences for Undergraduates

(known as the DMP, Distributed Mentor Project, from 1994-2008)

Application Deadline for Summer 2009

February 15, 2009

Details: http://www.cra.org/Activities/craw/dmp/
Message from the CISE AD
Cyber-Physical Systems

By Jeannette M. Wing, Assistant Director of NSF for CISE

Autonomous cars. Robots at work, at play, at home. Intelligent, energy-efficient, earthquake-proof buildings. Physical infrastructure monitored and controlled by sensor nets. Embedded medical devices. Unobtrusive assistive technologies. What is common to these systems? They have a computational core that interacts with the physical world. These cyberphysical systems are engineered systems that require tight conjoining of and coordination between the computational (discrete) and the physical (continuous). Cyberphysical systems are rapidly penetrating every aspect of our lives, with potential impact on security and privacy, including aerospace, automotive, chemical production, civil infrastructure, energy, finance, health-care, manufacturing, materials, and transportation.

The trend in cyberphysical systems is to rely less and less on human intervention and decision-making and more and more on the intelligence as embodied in the computational core. In some cases, such as an automated brake system in a smart car, this computational core may be able to detect and respond faster than a human; in some cases, such as robotic surgery, this computational core can be more precise than a human and not prone to fatigue; and in some cases, such as a mini-icefield, an icefield, or a volcano, we would rather risk the expense of a machine over the life of a human. In all cases, it will likely be the software that provides much of the intelligence of the computational core.

Our world will depend more and more on these systems. Our lives, our money, our welfare. A challenge for our community, then, is: “How can we design cyberphysical systems people can bet their lives on?”

One technical challenge is how to deal with both the discrete and continuous worlds at the same time. Cyber-physical systems inherently operate under the presence of uncertainty, including disruptive events, in the physical world, where uncertainty may be due to Mother Nature or the Human (angels or demons). Intelligent cyberphysical systems ideally will not only be aware of and adaptable to a dynamic, unpredictable environment but also do no harm. Perception, control, and coordination are essential to cyberphysical systems. In computing, we rely on rich abstractions to compose hierarchically designed systems where some abstractions can lend themselves to advanced verification techniques, especially as used to find subtle design bugs; however, we use these abstractions primarily to capture functional behavior and treat multiple competing influences in cyberphysical systems as “non-functional” requirements. Typically, we make overly simplifying assumptions about the environment and avoid explicit representation of time, space, energy, temperature, and other aspects of the physical world. Compositional reasoning, the ability to infer system behavior from component behavior, may be impossible for some of these requirements, especially when taken all together.

In engineering, we cautiously overdesign our systems with wide margins to achieve physical fault separation and isolation; however, we tend to ignore intrinsic aspects of computing and communication, such as scheduling, data integrity and management, network delays, and computational failures, since they are often regarded as secondary implementation issues. This “separation of concerns” principle, while crucial for tractability, often imposes an early architectural separation between the cyber and physical features of the system, thereby severely limiting our ability to assess the impact and tradeoffs among a full range of design alternatives. Bridging the two worlds of the cyber and physical will be smart sensors, transponders, and actuators, likely in new and diverse form factors. Some applications will require new camera technologies to perceive and track moving objects, especially people.

The Cyber Physical Systems (CPS) Program (http://www.nsf.gov/ funding/pgm_summ.jsp?pgm_id=503286&org=CISE), spearheaded by NSF’s Directorate for Computer and Information Science and Engineering (CISE) and Engineering (ENG), is providing an opportunity for the community to realize the vision of tomorrow’s cyberphysical systems. The CPS Program seeks new scientific foundations and technologies to address the challenges of cyberphysical systems and to enable rapid deployment of applications across different sectors. We encourage different research communities to work together, bringing their different perspectives and expertise to the table.

By Dan Reed, CRA Board Chair

Musings from the Chair
Where Is No Vision, the People Perish

By Dan Reed, CRA Board Chair

The hearing room for the U.S. House of Representatives Committee on Science and Technology is formally and imposing as the name suggests. Each time I have testified there on aspects of the Networking and Information Technology Research and Development (NITRD) program, I have paused to reflect on the two quotations command attention on the paneled wall behind the seats of the committee members—and all witnesses face the committee and that wall.

The first inscription—inscribed by the poet Alfred Tennyson, captures the rapturous joy that is birthed by scientific discovery:

For I dipped into the future, far as human eye could see
 Saw the vision of the world, and all the wonder that would be
 After all, this is why we were first attracted to research in general and computing in particular. It satisfies some of our oldest and deepest yearnings: to understand what and how and why.

The second inscription, from Proverbs, is a sobering warning to those who do not feel the siren call of intellectual curiosity, marshaled by strategy and tactics:

Where there is no vision, the people perish.

In simple yet haunting lines, these two Janus-faced invocations capture the rewards that accrue to those who both articulate and—equally critically—act on visions that carry the weight of the dire consequences for those who do not. I pause and ponder both each time I enter the House hearing room.

Enabling Innovation

I have often reflected on the critical ingredient to discovery and innovation. Is it knowledge? Without doubt, for each discovery builds on the vast and interconnected web of previous discoveries. Is it talent? Certainly, as anyone who has ever taught a class knows and understands. Is it persistence? Absolutely, for no one who desires it will stand on the sidelines or perhaps because of it, we find ourselves at an intellectual and emotional crossroads, facing a metaphorical midlife crisis. We are at an intellectual and emotional crossroads, facing a metaphorical midlife crisis. We are

Computing at the Crossroads

Over the last sixty years, computing has profoundly affected commerce, science and society. Despite this, or perhaps because of it, we find ourselves at an intellectual and emotional crossroads, facing a metaphorical midlife crisis. We are at an intellectual and emotional crossroads, facing a metaphorical midlife crisis. We are

The goal is to usher in a new generation of cyberphysical systems whose functional performance far exceeds those of today in terms of adaptability, autonomy, efficiency, functionality, perception, reliability, safety, and usability.

To expedite progress, we hope to cultivate the “flower model” (see graphic). Advances in fundamental research (center of flower) are inspired by problems from one or more domain sectors (petals of flower). Given a problem specific to one domain, a researcher might generalize the problem or generalize the solution (where both kinds of generalizations contribute to fundamental knowledge, the center), and then instantiate the solution to solve a similar problem in a different domain. Progress in one domain immediately benefits all other domains, avoiding duplication of effort or building point solutions that are not reusable. We hope that the vision of the world, and all the wonder that would be

I believe we must dream big and wide and across the various sectors. We are

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Continued on Page 6

Musings from the Chair
Continued on Page 6
Sexism—Toxic to Women’s Persistence in CSE Doctoral Programs

By J. McGrath Cohoon and Jie Chao

Presenting sexism in CSE doctoral programs can increase the retention of women. With funding from the National Center for Women & IT (NCWIT), CRA has been studying how many women in the CRAW Graduate Cohort program. This program welcomes graduate students in the computing community and provides them with role models and a broad range of strategies for success. Analyses have produced some interesting findings about women’s retention in CSE doctoral programs.

The data indicate that observing or experiencing sexism plays a key role in doctoral women’s departure. When asked to describe any sexism (according to their own definitions) that they observed or experienced in their doctoral programs, the cohort women identified incidents ranging from mild microaggressions and crude and offensive behaviors by some faculty and other students. A few women faced “male graduate students who would express their opinions that the women in the program are more likely to be incompetent than the men.” Other women were subjected to a range that would qualify as harassment. For example, one woman “switched labs because male students frequently and explicitly discussed women and their sex lives in very unsavory ways.” Even faculty members occasionally contributed to creating the environment inhospitable for women. For example, “I had a male faculty member state that attendance is so important that missing class to tend to a sick child is unacceptable.” In fact, he stated that women with children should “choose” between a family and an education. His male students apparently were not expected to make a similar choice.

Among cohort women working toward a doctoral degree in 2009, 12% witnessed or had been subjected to sexism during their first year. Close to one-quarter of the more advanced graduate women observed or had experienced sexism. Sexism that required action was more prevalent than if the women had reported it to a faculty member or another adult. For example, “one third of the cohort women were subjected to sexism during their first year.” These responses suggest that women in CSE doctoral programs appear to encounter less sexism than reported by women in many other settings. Nevertheless, our analyses showed that even this level of sexism contributed to women’s decisions to persist or leave.

Women who thought of leaving cited observed sexism as their reason. Nevertheless, sexism has a strong impact on actual departure, unlike other motivations for thinking of leaving. Many of those who consider leaving persist nonetheless. Comparing women who TOL and persisted with those who TOL and actually leave, left shows that these two groups had very different motivations regarding only one factor—sexism observed or experienced. Thirty-six percent of cohort women who TOL and left selected sexism observed or experienced as their reason, whereas 5% of those who TOL. Only 7% of the women who thought of leaving cited sexism observed or experienced as their reason. Nevertheless, sexism has a strong impact on actual departure, unlike other motivations for thinking of leaving.

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standard professional challenges (e.g., identifying the important problems, evaluating the work and mentoring new comers, securing resources). How can we reduce these barriers for collaborations?

2. The World Needs Us. We face a huge range of societal problems, and our expertise as computer and information scientists and engineers can help solve many of these. Traditionally, though, applied research has not been as highly valued as basic research; “it’s just an application” is a common dismissal of certain types of research. How do we properly assess used-research, and distinguish between “mere” applications and serious (but applied) contributions? How do we work with stakeholders who may not be researchers themselves? Are there ways to help people feel comfortable when they move outside familiar styles of research to address problems that may not have the same level of esteem within the academic research community?

3. Breaking the Cycle. Anyone who has served on a program committee in any field has bemoaned “creeping incrementality.” How do we break the cycle of deadline-driven research that leads to least publishable units, resulting in quantitative rather than qualitative advances? How can we encourage a holder approach to research projects, one that may involve more risk-taking, but may also produce more visionary work with greater impact? How can we encourage and support basic, long-term research, often necessary to pursue “deep” science questions of our field? What kinds of specific changes must we make to the academic reward structure and to the government funding review process to enable people to fail locally and periodically, without failing globally and permanently? To ensure scholarship in our field, what is the right mix, culture and approach to journal and conference publications and other venues?

4. Serving the Community. If our field is to stay vibrant, we need people to step up and serve the community, in roles ranging from mentors for junior faculty members to program managers at funding agencies and national leaders in the research community. Community leaders represent all of us—to people in other fields, to the public, to the media and to Congress. How can we develop a culture in which professional service is valued, so that the community has a strong voice and is able to obtain the resources needed for the health and growth of our field? How can we best mentor the next generation of computer science leaders?

Outcomes

The workshop did not produce definitive answers to all of these questions, but it did generate a host of good ideas. In every case, the debate was lively, thoughtful and thought provoking. We agreed to produce a set of “good practice” white papers on selected topics and to summarize the discussion for the community. Look for these on the CRA website (www.cra.org) in the coming months.

More generally, we invite all of you—the computing research community—to offer your perspectives and ideas on how we maximize the spirit of innovation and vision, both intellectually and practically, that has made our field a magnet for talented individuals and that has transformed commerce, science and society over the past sixty years. Please post your comments to either the CCC blog (www.cccblog.org) or by emailing any of us.

The Future is Bright

Computing faces an embarrassment of riches in the form of research opportunities and possibilities. The “endless Frontier” of research within our own discipline is expanding exponentially. Moreover, computing is the quintessential intellectual amplifier for other disciplines, allowing us to manage and extract insights from prodigious amounts of data, build and bring to life sophisticated models of natural and human-synthesized processes, and enable communication and collaboration across time and space.

The future is bright! Let’s seize the opportunities and invent the future—for ourselves as computing researchers and for our colleagues and collaborators in other disciplines.

Ed Lazowska holds the Bill & Melinda Gates Chair in the Department of Computer Science & Engineering at the University of Washington, and is a Chair of CCC. Martha Pollack is Dean and Professor, School of Information, University of Michigan, and a CRA board member. Dan Reed, CRA’s Board Chair, is Microsoft’s Scalable and Multicore Computing Strategist. Jeannette Wing is Assistant Director of NSF for CISE.

CISE Bytes

This is the second in a series of columns by Jeannette Wing, Assistant Director of NSF for CISE, covering items of interest from the directorate.

Personnel Updates

I am pleased to announce the following newcomers to CISE’s scientific staff. Alhussein Abozaid, RPI, joins CNS as a program director; Sujal Das, University of Texas at Arlington; CNS; Qi Jiang, RPI, IIS; Dmitriy Musolov, University of Waterloo, CCF; Jie Yang, Carnegie Mellon, IIS; Rajinder Khola, at NSF since 1996 in the Engineering Directorate, joins CISE as the CNS Deputy Division Director. Mary Lou Maher, who joined IIS in 2006 from the University of Sydney, is now the IIS Deputy Division Director.

Huge thanks go to two rotators who left CISE in December: Timothy Pinkston, who served as the Expeditions PD last year while continuing to help with CCF programs, returns to USC; and Jie Wu, CNS, returns to Florida Atlantic University.

CISE Advisory Committee

On Friday, October 17, CISE held an unusual Advisory Committee meeting in that we primarily focused on one theme: sustainability and energy. First, Dr. Tim Killeen, the new AD for the Geosciences Directorate, gave a presentation on the challenges and opportunities for the CISE community in climate modeling and prediction. Then, Dr. Carla Gomes from Cornell, as lead PI, gave a presentation of the goals for the newly CISE-awarded Expedition on “Computational Sustainability.” Finally, Dr. Doug Fisher, IIS PD, gave a presentation on GreenIT: Computing, Communications, and the Environment. He led a discussion on the role of CISE and the CISE community in meeting the broader societal grand challenge on energy/environment/ climate change/ sustainability.

To round out the agenda, Melissa O’Neil, CISE AC member, gave a presentation and led a discussion on broadening participation in computing. I also gave updates on CISE since the May 2008 AC meeting.

Changes in Washington

Starting Wednesday, November 5, NSF was in “transition team” mode, with our preparing and gathering documents at all levels for the incoming Obama Administration. We provided workshop reports and academic studies—to which many of you directly contributed—to support NSF’s four goals: Discovery, Learning, Research Infrastructure, and Stewardship. We hope to make clear that the CISE research community is making essential contributions to the Nation’s health, security and prosperity. CISE program directors will be asking you for grant “highlights” in the next few months, so please provide us with information on your greatest accomplishments—we’ll be sharing the most compelling examples with the new Administration and Congress in early 2009. We want to make a great and lasting impression.

The transition team moved swiftly, as the review of NSF started Monday, November 17. Jim Kohlenberger, executive director of the Voice on the Net Coalition, and Henry Rivera, a lawyer with telecommunications expertise at the firm Wiley Rein, led the review. Rounding out the team were Henry Kelly and Michelle McMurry. I have been on call for any questions about any CISE program and any NSF program in which this participates, such as CyberEnabled Discovery and Innovation. Their report on NSF feeds into a bigger review of all federal agencies, departments, and executive offices.
who, while not specifically a science appointee, has the authority for naming the key science and technology appointments who will serve beneath him. President-Elect Obama has already announced that current Secretary of Defense Robert Gates will continue in that role through at least the first year of Obama’s term. Gates has proven to be a great supporter of recommitting the Department of Defense to supporting fundamental research efforts at U.S. universities and in the service labs, so his retention bodes well for the continuation of ambitious budget requests already set in motion for defense basic science. In addition, the Obama Administration will consider new nominees for the Director of Defense Research and Engineering (DDR&E) and the Director of Defense Research and Engineering (DDR&E). The DDR&E has responsibility for all of defense science and technology, including each of the service labs and defensewide research in the Office of Secretary of Defense and DARPA. The Director of DARPA obviously oversees the $3 billion a year that agency spends on “bridging the gap” between truly fundamental research and deployable technologies designed to aid the warfighter and preserve America’s technological advantage.

The Obama Administration will also have to consider new leadership for a number of other key agencies for the computing community: Director of NSF, Director of the Department of Energy’s Office of Science (DOE Sci), Director of the National Institutes of Health (NIH), and Director of the National Institute of Standards and Technology (NIST). While the Director of NSF is technically a political appointment, traditionally there has been reluctance in both the executive branch and the Senate (who would have to confirm the nominee) to treat it that way. Instead, the position has a six-year term, which is designed to overlap Presidential terms. It is therefore not mandatory that the Obama Administration seek a replacement for current NSF Director Arden Bement right away, but it is likely that members of the transition team are thinking about who might succeed Bement when the time comes. However, it is not unusual for the other science agency positions (and their deputies) to change with the Administration.

Finally, a new position President-Elect Obama has committed to creating in his Administration is that of Chief Technology Officer (CTO). The goal of this position, Obama has said, is “to ensure that our government and all its agencies have the right infrastructure, policies and services for the 21st century.” In addition, the CTO will “ensure the safety of our networks and will lead an interagency effort, working with chief technology and chief information officers of each of the federal agencies, to ensure that they use best-in-class technologies and share best practices.” The question of whether that description suggests a CTO that is more engaged in policy development or one more engaged as a liaison across federal agencies has animated the technology policy community since the election. There are certainly a number of technology policy issues that a CTO could conceivably tackle, including questions about the openness of the Internet, broadband policies, e-government initiatives, overseeing the health of the IT research ecosystem, modernizing health care IT, federal IT privacy policies, and many more. But it is also not clear how this position would coexist with the existing jurisdictions of both the OSTP technology policy apparatus and the CTO and CIO positions at federal agencies. If the role of the CTO is to become an “IT Czar,” in much the same way there have been “Drug Czars” and “Cybersecurity Czars,” then many in the community fear that the outcome will be just as unseful as those previous efforts. We at CRA will continue to track the evolution of this position as well as the speculation surrounding (and nominations for) all the other positions as well.

For all the latest on the nominees, and all other policy issues relevant to computing research, make sure you check the Computing Research Policy Blog at http://cra.org/blog.
The Australian National University
College of Engineering and Computer Science
Research Fellow, Academic Level B
The Computer Sciences Laboratory seeks to admit a Research Fellow (Academic Level B) in Machine Learning or (Algorithmic) Information Theory or (Bayesian) Statistics or Artificial Intelligence or related area. The position will work on an ARC-project focusing on the mathematical, computational, and philosophical foundations of universal induction and intelligent agents, under the direction of Associate Professor Marcus Hutter. Enquiries: marcus.hutter@anu.edu.au / http://hutter1.net/rsise/postdoc09.htm
Closing Date for Applications: 16 January 2009
Applicants should have an excellent mathematical background and research expertise in machine learning or (algorithmic) information theory or Bayesian statistics or related area. The appointment will be for a period of two to three years. The position is available immediately. If you plan to attend NIPS Conference in December, please contact Marcus Hutter to arrange a meeting.

Brown University
Department of Computer Science
Faculty Position
The Department of Computer Science at Brown University invites applications for a tenure-track or tenured faculty position starting July 1, 2009. Positions are open to candidates with prior records of excellent research and teaching, and are open across all levels and priority given to junior applicants. Preference will be given to those candidates who best meet the teaching and research needs of the department and who are especially interested in candidates in computer graphics and related areas. Examples of such areas are computational photography, human-computer interaction, and the interface between graphics and vision. All applicants should have a demonstrated potential for excellence in research and teaching. Applicants holding senior faculty positions should have a strong record of externally funded research.

The department has 25 regular faculty, as well as several adjunct, research, and visiting faculty. Department members frequently take advantage of Brown’s unusually interdisciplinary culture via collaborations with other departments and centers. The department offers Applied Mathematics, Art, Biology, Brain Science, Cognitive and Linguistic Studies, Computational Molecular Biology, Computer Science, Economics, Engineering, Mathematics, Medicine, the Physical Sciences, and Psychology.

Junior applicants must have completed all requirements for the doctoral degree before the start date of their appointment. Initial appointments as assistant professor are for three years and are renewable. Applications and letters of reference (at least three letters for junior applicants and names of five references for senior applicants) should be submitted online through the Computer Science Department’s web site: http://www.cs.brown.edu/

Full consideration will be given to applications received in January 2009. Brown University is located in Providence, RI, close to Narragansett Bay and an hour from Boston. Providence is among the Northeast’s most livable cities and is home to diverse intellectual, artistic, and business communities. Inquiries are encouraged to: faculty_search_2009@brown.edu

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

Bucknell University
Department of Computer Science
Assistant Professor
Applications are invited for a tenure track entry-level (Ph.D. or fewer years of full-time teaching experience) assistant professor position in computer science beginning mid-August 2009. Candidate must have completed their Ph.D. requirements in computer science or a closely related field by August 15th, 2009. A strong commitment to excellence in teaching and scholarship is required. The successful candidate must be able to participate in the teaching of required core courses and be able to develop electives in courses the candidate’s area of expertise that enhance the department’s course offerings.

Bucknell is a highly selective private university emphasizing quality undergraduate education in engineering and in liberal arts and sciences. The B.S. programs in computer science are ABET and CAC accredited. The computing environment is Linux-based. More information about the department can be found at: http://www.bucknell.edu/ComputerScience

Applications will be considered as received and recruiting will continue until the position is filled. Candidates are asked to submit a cover letter, CV, graduate transcript, a statement of teaching philosophy and research interests, and the contact information for three references. Please submit your application to: jobs.bucknell.edu/ by searching for the “Computer Science Faculty Position”.

Please direct any questions to Professor Xiaoming Meng of the Computer Science Department at xmeng@bucknell.edu.

Bucknell University values a diverse and inclusive college community and is committed to excellence through diversity in its faculty, staff and students. An Equal Opportunity/Affirmative Action Employer, Bucknell University especially encourages applications from women and minority candidates.

California Institute of Technology
Computational Biology
Tenure-Track Faculty Positions
Our Department of Computational Biology in the Computational Biology Division of the Departments of Biology and the Division of Humanities and Social Sciences is now seeking tenure-track faculty. The faculty of the Division of Engineering and Applied Science and the Division of the Humanities and Social Sciences of the California Institute of Technology invites applications for a tenure track position in computer science and economics. Examples of research areas of interest include: multiagent systems, game theory, mechanism design, and distributed systems, although the quality of the work is more important than the area. We are seeking highly qualified candidates who are committed to a career in research and teaching.

The term of initial appointment is normally four years, if untenured, and is contingent upon completion of the Ph.D. Internatinal candidates should apply electronically at http://jobs.caltech.edu. Interested applicants are required to submit a letter describing their current research, a vita, three letters of recommendation, and a sample of work to:
Chair, CS/Eng Recruiting Committee
Division of the Humanities & Social Sciences
1200 E California Blvd
Pasadena, CA 91125

Applications will be accepted until the positions are filled.

Caltech is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

Carnegie Mellon University
University of California, Los Angeles
Department of Mathematics
Tenure-Track Faculty Positions
We are recruiting tenure-track faculty in computational biology. These will include those who
• use experimental and computational methods to automate the characterization and modeling of complex biological systems at multiple levels, including automated experiment design and data acquisition
• and applying cutting-edge machine learning methods, especially active learning, to biological problems.

We especially seek candidates who are interested in integrating experimental and computational approaches to address complex questions related to improving clinical therapies. Appointments will be made in the Lane Center and in one or more academic departments, as appropriate to the background and interests of the candidate. To guarantee consideration, complete applications must be received by January 5, 2009.

Please direct any questions to Professor Xiannong Meng of the Computer Science Department at xmeng@cs.ucsb.edu.

The quality of the work is more important than the area. Distributed systems, although the quality of the work is more important than the area. We are seeking highly qualified candidates who are committed to a career in research and teaching.

The term of initial appointment is normally four years, if untenured, and is contingent upon completion of the Ph.D. Internatinal candidates should apply electronically at http://jobs.caltech.edu. Interested applicants are required to submit a letter describing their current research, a vita, three letters of recommendation, and a sample of work to:
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Pasadena, CA 91125

Applications will be accepted until the positions are filled.

Caltech is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

Columbia University
 tenured-track positions as Assistant Professor at Columbia University, and encourage applications from women and minorities. Interested candidates should apply electronically at http://www.caltech.edu/jobs/, search for mit-00004577, Software Engineer, Caltech Workstation Team. Applications are accepted on a rolling basis and will continue until the positions are filled. Women, minority, disabled persons, and veterans are encouraged to apply.

Columbia University
Department of Biomedical Informatics
Postdoctoral Scientist
A Postdoctoral position in biomedical informatics is available at Dr. Chunhua Wu’s group. Interested candidates should apply electronically at http://www.caltech.edu/jobs/, search for mit-00004577, Software Engineer, Caltech Workstation Team. Applications are accepted on a rolling basis and will continue until the positions are filled. Women, minority, disabled persons, and veterans are encouraged to apply.

Columbia University
Department of Computer Science
Tenure-Track Position
The Department of Computer Science is seeking candidates for a tenure-track position at the junior or senior level in computer graphics. Applicants should have a Ph.D. in a relevant field, and have demonstrated excellence in research and teaching potential for leadership in the field. Senior candidates should also have demonstrated excellence in teaching and contribute strong leadership in the field. Our department has active ties with major industry partners including Adobe, Autodesk, Disney, Dreamworks, Nvidia,
Smy, Weta and also to the nearby research laboratories of AT&T, Google, IBM/TJ. (Watson), NEC, Siemens, Telcordia Technologies and Verizon. Columbia University is one of the leading research universities in the United States, and New York City is one of the cultural, financial, and communications capitals of the world. Columbia’s midtown campus is located in Morningside Heights on the Upper West Side.

The search will remain open until filled, but will close no sooner than February 28, 2009.

D. E. Shaw Research

Early Career Scientists and Engineers: Computational Biochemistry

Exceptionally gifted early career scientists and engineers sought to join a rapidly growing New York-based research group pursuing an ambitious, long-term project aimed at achieving major scientific advances in the field of biochemistry and fundamentally transforming the process of drug discovery. Successful candidates will have outstanding low-level programming ability and excellent verbal and written communication skills. Relevant areas of expertise might include parallel programming, multicore systems, compilers, assembly language programming, or architectural simulations, but specific knowledge of any of these areas is less critical than exceptional intellectual ability and a demonstrated track record of achievement. We will consider candidates at all levels of experience and are prepared to reward exceptionally well-qualified individuals with above-market compensation. Candidates will primarily be considered for opportunities in New York and Silicon Valley.

Please send your resume to: cra-asd@career.DEShawResearch.com

DePaul University

College of Computing and Digital Media

Tenure-Track Position in Information Assurance

The College of Computing and Digital Media at DePaul University invites applicants for a tenure-track position in Information Assurance.

The Department of Computer Science is seeking a candidate with expertise in information assurance. The successful candidate will be expected to contribute to the curriculum and to the many other universities in the country.

Applications for the position will have a strong interest and experience in information assurance. While we encourage candidates with specializations in all areas of information assurance to apply, particularly in those with specializations in audit, compliance, IT governance, risk management, and information security management.

DePaul University is an affirmative action, equal opportunity employer.

Oregon State University

School of Electrical Engineering and Computer Science

The School of Electrical Engineering and Computer Science at Oregon State University invites applications for tenure-track positions in Computer Science. The School of EECS strongly encourages teamwork and collaboration within the School, and with other departments and universities. We are particularly interested in candidates who can collaborate with our Graphics/Visualization, End-User Software Engineering and Machine Learning groups. The following areas are strong possibilities for collaboration with these groups: Human Computer Interaction; Theoretical Computer Science.

Applicants should have an earned doctorate in Computer Science/Computer Engineering by the appointment start date and demonstrate a strong commitment to high-quality undergraduate and graduate teaching and the development of a vibrant research program.

OSU is one of only two American universities to hold the Land Grant, Sea Grant, Space Grant, and Honors designations, and is the only Oregon institution recognized for its "very high research activity" (RUVH) by the Carnegie Foundation for the Advancement of Teaching. With a faculty of 45, the School of EECS enrolls 1300 undergraduate and 300 MS/PhD students. For more information, including instructions for application, visit http://www.eecs.oregonstate.edu. OSU is an AA/EOE.
Professional Opportunities

Computing Research News January 2009

Quantitative backgrounds (for example, in computer science, mathematics or statistics) and with experience in addressing challenging questions in the life sciences, including genome biology, computational genomics, functional genomics, or modeling across biological scales. Appointees will enjoy and contribute to existing strengths in the broad areas of computational and systems biology at Duke and will be affiliated with the IJGCP Center for Systems Biology, a computational and interdisciplinary center at Harvard University.

A successful candidate will have a computer science appointment in a suitable department in Arts & Sciences, as well as an appointment in an Investigator in the IJGCP, with the possibility for a joint appointment in other departments or schools as appropriate. While the current search is directed to faculty at the rank of Assistant Professor, exceptional candidates may be considered at more senior ranks.

Applications should include a curriculum vitae, a statement of teaching interests and experience, and up to three publications via the web at www.academicjobsonline.org.

Candiates should arrange for at least three letters of recommendation to be uploaded to the site. Applications received before 5 January 2009 will receive full consideration; applications after this date may be considered, but positions will be filled. Questions about the search may be addressed to mbbooher@duke.edu; additional information may be found at: www.cs.gmu.edu/careers/ohr/facsearch.

FPL Palo Alto Laboratory, Inc., Research Scientist

FPL Palo Alto Laboratory, Inc. (FPLX) provides multimedia and collaboration technology research for Fujitsu Ten Co., Ltd., a joint venture between Xerox Corporation of America and Fujifilm of Japan. We have an immediate opening for a Research Scientist with expertise in distributed systems and applications. We are developing distributed virtual collaboration and multimedia applications that run on everything from cell phones to laptop and desktop computers to very large clusters of multicore computers.

Preferred applicants will have extensive experience with network protocols, scalable systems, distributed programming tools or multimedia systems.

Candidates should be interested in working on practical applications in a collaborative setting and able to perform leading edge original research. A Research Scientist position requires a Ph.D. in Computer Science or related field, strong programming skills, and an excellent publication record.

For more information about FPLX, please visit our website at www.fplx.com. To apply send resume to fplpaloalo@fpl.com. Please reference job code CRN/4.

George Mason University Department of Computer Science Assistant Professor Position, Computer Graphics & Game Design

Applications are invited for a tenure-track faculty position in Computer Game Design at the rank of Assistant Professor, beginning Fall 2009. Applicants must have a research focus on computer game technologies, for example, in the areas of artificial intelligence, computer graphics, real-time animation, simulation and modeling, distributed systems, computer security, and software engineering as applied to computer games.

Minimum qualifications for the position include a Ph.D. in Computer Science or a related field, demonstrated potential for excellence and productivity in research, and a commitment to high quality teaching.

For more information on the department, visit our web site: http://cg.msu.edu/.

For full consideration please submit application and application materials online at http://jobs.gmu.edu (position number 09053). To apply, you will need to use the online application system to submit a statement of professional goals including your perspective on teaching and research, a current CV, publications, and the names of three references. The review of applications will begin immediately and will continue until the positions are filled.

GMU is an equal opportunity/ affirmative action employer.

Tenure Track Faculty Position

The Computational Science and Engineering Division within the College of Computing at the Georgia Institute of Technology invites applications for tenure-track faculty positions. Applications at all levels of experience will be considered.

Applicants must have an outstanding record of research, a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research with collaborators in other disciplines.

We encourage applications from any areas of computational science and engineering. Applicants with expertise in high-performance computing, simulation, numerical methods, computational biology, and large-scale data analysis and visualization are especially encouraged to apply.

Applicants will be considered until open positions are filled, however, to receive full consideration, applications should be submitted online through https://recruiting.ccs.gatech.edu/cse by January 5, 2009.

The application material should include a full academic CV, teaching and research statements, a list of at least three references and up to three publications.

Applicants are encouraged to clearly identify in their cover letter the area(s) that best describe their research interests. Georgia Tech is an Affirmative Action/ Equal Opportunity Employer.

Applications from women and underrepresented minorities are strongly encouraged.

Georgia Institute of Technology College of Computing, Computing Science & Engineering Division Tenure Track Faculty Position

The School of Interactive Computing (IC) within the College of Computing at the Georgia Institute of Technology invites applications for tenure-track faculty positions. Applications at all levels of seniority will be considered. Applicants must have an outstanding record of research (or clear potential thereof), a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research. All areas of research within IC are of interest for potential applicants.

IC consists of 35 faculty members and 120 graduate students working in a wide range of research areas including artificial intelligence, bioinformatics, computer graphics, computer vision, cognitive science, human-computer interaction, learning sciences and technology, machine learning, robotics, ubiquitous and wearable computing, visualization, health systems, entertainment and digital media, CS education, social networks, and music technology. The School is affiliated with the GVU Center and the newly-formed Robotics and Interactive Systems Laboratory (RISL) at the GT Center. Our degree programs include the College of Computing Computer Science Ph.D., a Ph.D. in Human-Centered Computing, and a Ph.D. program in Robotics, joint with other schools on campus. Masters programs include Computer Science and Human-Computer Interaction.

Computing with over 40 faculty members, research at Georgia Tech covers a broad range of areas, including: computer architecture, databases, distributed and embedded systems, enterprise computing, high-performance computing, information security, networking, operating systems, programming languages and compilers, theory, and software engineering. All applications in all areas of computer science represented by the School are invited.

The School incorporates a number of research centers including the Center for Experimental Research in Computer Systems, the Georgia Tech Information Security Center, and the Algorithms and Randomness Center. These centers support a wide variety of focused and collaborative research projects spanning multiple academic units on campus. Applications from candidates with an interdisciplinary research focus and interest in potential joint appointments are welcome.

Reviews of submitted applications will begin December 15, 2008. Full consideration will be given to those who apply by January 15, 2009.

We strongly encourage applications. Cover letters and materials should be submitted online by going to: https://recruiting.cc.gatech.edu or by email to recruiting.coffe@gatech.edu. If done by email, the cover letter must include a URL pointing to application materials in PDF. The application material should include a full CV, teaching and research statements, a list of at least three references and up to three publications. Applications from women and underrepresented minorities are strongly encouraged to clearly identify in their cover letter the area(s) that best describe their research interests.

Applications from women and underrepresented minorities are strongly encouraged.

Georgia Institute of Technology College of Computing Tenure-Track Faculty Positions

The School of Interactive Computing (IC) within the College of Computing at the Georgia Institute of Technology invites applications for tenure-track faculty positions. Applications at all levels of seniority will be considered. Applicants must have an outstanding record of research (or clear potential thereof), a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research. All areas of research within IC are of interest for potential applicants.

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We strongly encourage application online. Cover letters and materials should be submitted online by going to: https://recruiting.cc.gatech.edu or by email to recruiting.coffe@gatech.edu. If done by email, the cover letter must include a URL pointing to application materials in PDF. The application material should include a full CV, teaching and research statements, a list of at least three references with contact information and up to three publications. Applications are encouraged to clearly identify in their cover letter the area(s) that best describe their research interests. Please indicate consideration by the School of Interactive Computing in your application.

Reviews of submitted applications begin December 15, 2008. Full consideration will be given to those who apply by January 15, 2009. We expect most hiring decisions will be made by May 1, 2009.

Georgia Tech is an Affirmative Action/ Equal Opportunity Employer.

Applications from women and underrepresented minorities are strongly encouraged.

Harvard University Postdoctoral Fellowship in Time Series Analysis

A postdoctoral position is available for an outstanding individual capable of leading edge research in the analysis of scientific time series. The position is co-funded by the ITC Time Series Center at Harvard and a recent NSF grant supporting Interdisciplinary Machine Learning and Education (http://www.nsf.gov/awardsearch/showAward. do?AwardNumber=083409).

The Fellow will work directly with Dr. Peter Rosenthal and the Time Series Center group at the Initiative in Innovative Computing (IIC) at Harvard (http://timemachine.ioe.harvard.edu/) and the Tufts machine learning group (http://www.cs.tufts.edu/research/ml/). headed by Prof. Carla Brodley and Roni Khardon.

A more detailed description of the position can be found at: http://timemachine.ioe.harvard.edu/newpostdoc/.

A Ph.D. in Computer Science, Electrical Engineering, Astronomy or related field is required. The position is available immediately and we are looking for a candidate with a strong background and ability to perform original research in machine learning and strong understanding and/or interest in Astronomy. The start date is negotiable. Applications should be sent by email to helene.ingen@fas.harvard.edu and should include a curriculum vitae, a brief summary of research, and three letters of recommendation.

Hofstra University

Assistant Professor of Computer Science Assistant Professor in Computer Engineering

The Department of Computer Science at Hofstra University invites applications for a tenure-track position in computer engineering to begin September 2009 in the area of hardware design and implementation of computer systems. We are seeking a candidate with experience in hardware design and implementation, with an emphasis on digital system design and system simulation. Necessary qualifications include a degree in Computer Engineering or a related field with experience in effective teaching, including new curricula and laboratory development, student research achievement, and potential to attract external funding.
Endowed Professorships and Faculty Positions in Computational Discovery and Innovation

Michigan Technological University announces a Strategic Faculty Hiring Initiative (SFHI) that will add ten tenure-track positions, including at least two endowed professorships, during 2009. SFHI is an ongoing commitment to substantially expand Michigan Tech’s faculty resources in targeted strategic areas of multidisciplinary research and inquiry. This initiative follows on last year’s first SFHI which resulted in ten hires in the area of Sustainability.

Michigan Tech seeks to attract exceptional candidates whose interests and capabilities match the following objectives and activities: develop computationally-based tools, processes, and environments; extend the boundaries of high-performance computing (HPC); investigate and model complex systems; foster synergies in research methodologies, computational techniques, and innovation.

Michigan Tech seeks a diverse applicant pool from a wide range of disciplines in this strategic initiative. For full consideration, applications should be received by January 30, 2009; review will continue until all positions are filled. Attractive salary, benefit and start-up packages will be provided for successful applicants.

Details about the Michigan Tech Strategic Faculty Hiring Initiative in Computational Discovery and Innovation are available at www.mtu.edu/sfhi. Applications should prepare their materials as a single PDF document, and send it as an e-mail attachment to provost@mtu.edu. More general information on Michigan Technological University is available at www.mtu.edu.

Michigan Tech is an internationally renowned doctoral research university located in Michigan’s scenic Upper Peninsula, on the south shore of Lake Superior. Houghton provides a unique setting where natural beauty, culture, education, and a diversity of residents from around the world come together to share a superb living and learning experience.

Michigan Technological University is an equal opportunity, affirmative action employer/educational institution. Applications from women and minorities are encouraged.

(continued)
Computing Research News
January 2009

Professional Opportunities

Iowa State University of Science and Technology
Department of Computer Science
Lanh and Oanh Nguyen Endowed Chair in Software Engineering

The Department of Computer Science at Iowa State University invites applications from distinguished scholars for the Lanh and Oanh Nguyen Endowed Chair in Software Engineering beginning August, 2009. We are especially interested in candidates whose research integrates software engineering with other areas of computer science or interdisciplinary applications. The department is well equipped for conducting research in advanced and emerging technologies, and engages with top research institutions, stimulat transfer of innovative technologies to government and private sectors, and enhance student learning in the recently established software engineering B.S. program.

A Ph.D. or equivalent in computer science, software engineering, or a closely related field is required. The successful candidate must have a nationally and internationally recognized record of outstanding research and publication in software engineering as well as demonstrated leadership in instruction and in expanding funded research programs. It is expected that the Chair holder will have the credentials to join the department as a full professor.

Our department consists of 27 full-time tenured faculty members. We offer B.S., M.S., and Ph.D. degrees in Computer Science and in Software Engineering (this list is not exhaustive). KAUST is located on the Red Sea coast of Saudi Arabia, about 80 kilometers north of Jeddah.

KAUST is an independent and merit-based institution that is one of the best endowed universities in the world, KAUST intends to become a major new contributor to the global network of collaborative research. It will enable researchers from around the globe to work and collaborate on solving challenging scientific and technological problems. The admission of students, the appointment, promotion, and retention of faculty and staff, and all the educational, administrative and other activities of the University shall be conducted on the basis of equality, without regard to race, color, religion or gender.

KAUST is located on the Red Sea at Thuwal (50km of Jeddah). Opening in September 2009, KAUST welcomes exceptional researchers, faculty and students from around the world. To be competitive, KAUST will offer very attractive base salaries and a wide range of benefits. Further information about KAUST can be found at http://www.kaust.edu.sa/.

KAUST invites applications for faculty positions at all ranks (Assistant, Associate, Full) in Applied Mathematics (with domain applications in the modeling of biological, physical, engineering, and financial systems) and Computer Science, including areas such as Computational Mathematics, High Performance Scientific Computing, Optimization, Computer Systems, Software Engineering, Algorithms and Computing Theory, Artificial Intelligence, Graphics, Databases, Human-Computer Interaction, Computer Vision and Perception, Robotics, and Bio-Informatics (this list is not exhaustive). KAUST is also interested in applicants doing research at the interface of Computer Science and Applied Mathematics with other science and engineering disciplines. High priority will be given to the overall originality and promise of the candidate's work rather than the candidate's sub-area of specialization within Applied Mathematics and Computer Science.

An earned Ph.D. in Applied Mathematics, Computer Science, Computational Mathematics, or Computer Science and Engineering, is required. Faculty will be employed by KAUST, not by Stanford. Faculty members in Applied Mathematics and Computer Science positions recruited by KAUST before September 2009 will be hosted at Stanford University as Visiting Fellows until KAUST openings in September 2009. At Stanford, these Visiting Fellows will conduct research with Stanford faculty and will occasionally teach courses at Stanford.

Applications are invited for tenure-track and tenured faculty positions in all areas related to the design, analysis and engineering of software systems, including programming languages, formal methods, security, distributed, networked and embedded systems, databases and information systems and human computer interaction.

A doctoral degree in computer science or related areas and an outstanding research record is required. Applicants are expected to build a team and pursue a highly visible research agenda, both independently and in collaboration with other KAUST faculty. Senior candidates who have demonstrated leadership abilities and recognized international stature, are strongly encouraged to apply.

Applications will continue to be accepted as soon as possible; however, applications as soon as possible; however, applications will begin immediately, and applicants are encouraged to submit their applications as soon as possible.

The review of applications will begin on January 15, 2009 and will continue until the position is filled.

Max Planck Institute for Software Systems (MPI-SWS)
Tenure-Track Faculty Openings

Applications are invited for tenure-track and tenured faculty positions in all areas of computer science, including algorithms, programming languages, programming theory, dependability, and software engineering.

An earned Ph.D. in Computer Science and Software Engineering is required.

Applications should include a curriculum vitae, brief statements of research and teaching interests, and the names of at least 3 references for an Assistant Professor position, and 9 references for a Full Professor position. Candidates are requested to ask references to send their letters directly to the search committee. Applications and letters should be sent via e-mail to kausresearch@mpi-sws.org.

The committee will conduct a searching process immediately and applications are strongly encouraged to submit applications as soon as possible; however, applications will be reviewed after December 2009, and all available positions will be filled.

In 2009 and 2010, as part of an Academic Excellence Alliance agreement between KAUST and Stanford University, the KAUST Faculty search will be conducted by a committee consisting of professors from the Computer Science Department and the Institute of Mathematical and Computational Engineering at Stanford University. This committee will select the top applicants and nominate them for faculty positions at KAUST. However, KAUST will be responsible for actual recruiting decisions, appointment offers, and explorations of employment details. An interview for the selected candidate will be employed by KAUST, not by Stanford. Faculty members in Applied Mathematics and Computer Science positions recruited by KAUST before September 2009 will be hosted at Stanford University as Visiting Fellows until KAUST positions in September 2009. At Stanford, these Visiting Fellows will conduct research with Stanford faculty and will occasionally teach courses at Stanford.

Applications are invited for faculty positions in all areas related to the design, analysis and engineering of software systems, including programming languages, formal methods, security, distributed, networked and embedded systems, databases and information systems and human computer interaction.

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Applications will continue to be accepted as soon as possible; however, applications will begin immediately, and applicants are encouraged to submit their applications as soon as possible.
Professional Opportunities

National University of Singapore
The School of Computing
Tenure-Track Positions

Applications are invited for tenure-track positions at the Associate/Full Professor level. We are seeking outstanding candidates in the area of Computer Graphics who are looking for new academic opportunities to advance their careers. Recent PhD graduates with exceptional qualifications may be considered for appointment as Assistant Professor.

NUS is a highly ranked research university with low teaching loads, excellent facilities, and a vibrant international collaboration. The Singapore government has recently earmarked over S$500 million for research and industrial projects focused on digital media and related areas. Significant funding opportunities abound for strong candidates. The School of Computing consists of active and talented faculty members working in a variety of areas, and attracts the best students (both undergraduate and graduate) in the region.

NUS offers highly competitive salaries, as well as generous benefits for housing and education. Singapore offers a vibrant international environment free of the usual constraints.

Review of applications will be immediate and will continue until March 31, 2009. Interested candidates are requested to send the following materials to careers@comp.nus.edu.sg:

• Curriculum Vitae
• Research Statement
• Names of at least five references

NCTA Laboratories America
Research Staff Members - Grid Storage

The National ICT Australia (NICTA) is a research organisation with more than 700 people located in 5 research laboratories. We focus on use-inspired basic research, commercialisation of research outcomes (through licensing and our successful spin-out program) and research training particularly at the PhD level.

NICTA's laboratories are located adjacent to our partner universities and our research staff have honorary appointments in IT, Engineering or Computer Science Departments. Our PhD scholarship program allows us to attract top students who will improve the quality of life to be supervised by our staff.

We have several vacancies for outstanding research engineers and research leaders in a number of fields in our laboratories in Sydney, Canberra, Brisbane and Melbourne. In particular we are looking for:

• Research Laboratory Directors to take management responsibility for the research direction and operations of a laboratory.
• Senior Principal or Principal Research Engineers (or equivalent) in:
  1. Machine Learning
  2. Computer Vision
  3. Embedded Systems and Operating Systems
  4. Software Engineering

Conditions: Candidates should have a PhD in Computer Science (or equivalent) and have an outstanding research record in commercial or academic research laboratories, with an appropriate level of managerial experience. An outstanding track record in supervising PhD students, commercialisation of research, patenting or publications is required.

An attractive remuneration and relocation expenses can be negotiated. Applications: Please visit NICTA Careers to view the criteria essential to this position at http://nicta.com.au/director/careers.cfm

Closing date: 1 February 2009

New Jersey Institute of Technology
Computer Science Department
Assistant/Associate Professor, Software Engineering

The Computer Science Department at New Jersey Institute of Technology (NJIT) is seeking to hire faculty for a tenure-track position beginning Fall 2009. Applications are invited from candidates with research and teaching interests in multiple aspects of software, such as Software Engineering and Web Technologies and Services.

Experience in software development and/or Open Source projects will be a plus.

An applicant should have a PhD (or expect to receive by one summer 2009) in computer science. Applicant should have demonstrated potential for original research, a commitment to excellence in teaching, and familiarity with practical aspects of software. Salary is competitive and commensurate with appointment rank and qualifications.

NJIT is a public research university. The Department offers programs at the undergraduate, masters and PhD levels in Computer Science. The Department also offers undergraduate and graduate degree programs in other areas.

NJIT is located in Newark's University Heights, a multi-institutional campus shared with Rutgers University at Newark, the University of Medicine and Dentistry of New Jersey and, Science Park. NJIT's location in the NY metro area is ideal for research collaborations. The area is home to other universities and research laboratories as well as major financial, telecommunications, and pharmaceutical companies, offering excellent opportunities for collaboration, consulting, and industry-sponsored research.

New Jersey enjoys a high standard of living and quality of life. Newark is minutes from New York City and close to the Jersey Shore, providing a wide range of cultural and leisure activities.

To apply, please visit njitjobs and use position number 1409.

Please include the following items:
• CV
• Research statement
• Teaching statement
• Cover letter

Please also ask at least three references to send letters of recommendation to facultysearch@njit.edu.

For more information about the Computer Science Department, please see our website at cs.njit.edu.

NJIT is an equal opportunity, affirmative action, equal access employer and especially encourages applications from minorities, women and persons with disabilities.

North Carolina State University
Department of Computer Science
Faculty Positions

The Department of Computer Science at NC State University (NCSU) seeks to fill multiple tenure-track faculty positions starting August 16, 2009. Successful candidates must have a strong commitment to academic and research excellence, and an outstanding research record commensurate with the expectations of a major research university. Required credentials include a doctorate in Computer Science or a related field.

While the department expects to hire faculty with knowledge and background in any area, candidates with exceptional research records are encouraged to apply for senior positions.

(continued)
Computational Biology/Bioinformatics
Postdoctoral Positions

Taylor Lab: Biology and Mathematics & Computer Science
EMORY UNIVERSITY
Atlanta, Georgia

The Taylor Lab in the Biology and Mathematics & Computer Science departments at Emory University is currently recruiting postdoctoral scholars with expertise in Bioinformatics and Computational Biology. The lab currently has research interests in two major areas:

- Identifying and understanding functional regions in vertebrate genomes, particularly through the development of novel machine learning, data mining, and data integration methods incorporating genomic sequence and experimental data.

- Building software and infrastructure to make computational biology more accessible to experimentalists, including both the development of analysis and data management tools, and the development of novel user interfaces and interactive tools for analyzing large-scale data. We are seeking post-docs with complementary research interests. Well developed research plans that complement but extend the lab’s current interests will be looked upon favorably. Specific area of academic background is flexible. However, because the lab is entirely computational, programming / software development experience should be important.

Applicants should submit a CV, a statement of research interests or research plan, and a few references to james.taylor@emory.edu. For more information see http://bx.mathcs.emory.edu/joining/postdocs/.

Emory University is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and members of minority groups.
We particularly welcome candidates with a demonstrated record or potential to excel in collaborative research spanning multiple research areas. The College has particular strengths in programming languages and software, artificial intelligence, network security, and distributed computing, database management and information retrieval, artificial intelligence, and human-computer interaction.

Information Science
Applicants with strong research programs and records in information science or information systems will be considered. We particularly welcome candidates with research related to human-computer interaction, information retrieval, natural language dialog, information security, and health informatics. Areas of current faculty research in information science include human-computer interaction, software and language engineering, information retrieval, machine learning and ontologies. Current application areas include clinical data management and privacy. The College has a diverse full-time faculty of 26, with approximately 50 Ph.D. students. In addition to degrees in computer science, the College offers an undergraduate bachelor's program in Information Science, and dual bachelor degree programs between computer and information science and the sciences. The College also offers interdisciplinary master's programs in information assurance and health informatics.

Additional information and instructions for submitting application materials may be found at the following website: http://www.eecs.northwestern.edu/hiring/. Screening of applications begins immediately and will continue until the search is complete. Northwestern University is an Equal Opportunity/Affirmative Action Employer. We strongly encourage candidates from underrepresented racial and ethnic minorities to apply.

Northwestern University
Department of Electrical Engineering and Computer Science
Faculty Opening in Computer Engineering and Systems
The Department of Electrical Engineering and Computer Science at Northwestern University invites applications for a tenure-track position in computer engineering and systems. Candidates at all levels will be considered. An earned Ph.D. in Computer Science, Computer Engineering, or a related field is required, as is demonstrated success within computer engineering research and/or experimental computer system development. Specific areas of interest include embedded systems, parallel systems, high performance computing, distributed systems, operating systems, computer architecture, computer networking, and software systems. Successful candidates will be expected to carry out world class research, collaborate with other faculty and teach effectively at the undergraduate and graduate levels. Compensation and startup packages are negotiable and will be competitive.

Northwestern EECS consists of over 100 faculty members of national prominence who interact over a wide range. The Computer Engineering and Systems division, with 17 faculty members, is likely to provide a particularly stimulating collaborative environment for successful candidates. Northwestern University is located in the Chicago area.

Applicants should send a curriculum vitae, statements of research and teaching interests, three representatives, and the names of at least three references for junior applicants and five for senior applicants, by email to csesearch@northwestern.edu or by regular mail to CES Faculty Search Committee Department of Electrical Engineering and Computer Science Northwestern University 2455 Sheridan Road Evanston, IL 60208. To ensure full consideration, applications should be received by January 15, 2009. Preference will be given to early applications and interviews will start early, but no offer will be made prior to March 2009. The selected applicant will begin in the position either in September, 2009 or January, 2010.

Further information about the hiring department and the University is available at http://www.eecs.northwestern.edu and http://www.northwestern.edu. Northwestern University is an Affirmative Action, Equal Opportunity Employer. Women and minorities are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.

Oakland University
Computer Science and Engineering Department
Faculty Positions
The Department of Computer Science and Engineering invites applications for one visiting and two tenure-track positions at the assistant professor level. The visiting position is contingent upon funding. Applicants must have completed a Ph.D. in Computer Science, Information Technology, Computer Engineering or a closely related field by the appointment date. Candidates must show exceptional promise in both research and teaching. Interested areas of research include animation and computer gaming, database systems, enterprise computing, human computer interaction, parallel and multicore programming, and web technologies. Only applicants whose research interests fall under those or very closely related areas will be considered.

Applications should be submitted by January 19, 2009, but will be accepted until the positions are filled. Applicants should send a letter of intent, a statement of research and teaching interests, resume, and the names of three references to:

CES Faculty Search Committee
Department of Computer Science and Engineering
Oakland University
Rochester, MI 48309-4478
Email: csesearch@ecs.oakland.edu

The teaching statement should include a list of undergraduate and graduate courses that the applicant is willing to teach as well as outlines of two courses that the applicant would like to introduce. Information about the current computer offerings is available at departmental web pages. Oakland University, a public institute with over 5,700 students located in Michigan’s Automation Alley. The CSE Department currently has an enrollment of approximately 400 doctoral, 150 graduate and 315 undergraduate students. Our undergraduate program in Computer Science is accredited by CAC/ABET. For more information on the CSE Department, please visit www.csce.oakland.edu. Oakland University is an equal opportunity employer.

Ohio State University
Department of Computer Science and Engineering
Assistant/Associate Professor
The Department of Computer Science and Engineering (CSE), The Ohio State University, invites applications for two tenure-track positions at the Assistant Professor level. The positions are open to all CSE areas (artificial intelligence, graphics, databases, computer programming languages, software engineering and programming languages, systems, and theory) with priority consideration given to candidates with cross-cutting interests in database systems and machine learning (e.g., data mining) and those in theory (broadly defined).

The department is committed to enhancing faculty diversity; women, minorities, or individuals with disabilities are especially encouraged to apply. Applicants should hold or be completing a Ph.D. in CSE or a closely related field, and have a commitment to and demonstrated record of excellence in research as well as a commitment to excellence in teaching and advising.

The department maintains and encourages multidisciplinary research and education activities both within and outside The Ohio State University. To apply, please submit your application via the online database. The link can be found here:

http://www.cse.ohio-state.edu/department/positions-ab.html

Review of applications will begin in January and will continue until the positions are filled.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

Ohio State University
Department of Biomedical Informatics
Faculty and Postdoctoral Opportunities
The Department of Biomedical Informatics (BMI) of The Ohio State University has opportunities for tenure and research track faculty and postdoctoral researchers. BMI seeks faculty candidates with research interests in biocomputing, database systems, distributed databases, information integration systems, and high-performance software systems with emphasis on application of big biological research data. The faculty position applies novel algorithmic, computational and data management techniques in the areas of biomedical data retrieval and integration, imaging, simulation, clinical and translational informatics, computational biology, and comparative genomics. These techniques are applied in medicine and supported by software tools and systems developed through application of advanced computer science methodologies.

Applications
Applicants should have a strong background in computer science with interest in medical applications, or a biomedical research background with substantial experience developing software tools and applications for basic, translational, and clinical research in biomedicine. All applicants should hold a Ph.D., have a strong publication record, including peer-reviewed journals and conferences, and demonstrated potential to obtain extramural funding. Senior faculty should have established research programs with extramural funding.

To apply: Email your cover letter (including information on why you are applying forlicht, CV, research and teaching (continued)
All applicants should hold a Ph.D in Computer Science, or a closely related discipline, be committed to excellence in teaching, and have demonstrated potential for excellence in research. Salary and benefits are highly competitive, and applicants should apply online at: https://hiring.cs.rutgers.edu. Review of applications will begin on December 1, 2008, and will continue until the position is filled. For all positions in Statistics, please visit: http://www.stat.purdue.edu/hiring/to apply. Applications should include a cover letter, CV, research statement, and arrange for four letters of reference, and URLs for three to five papers. Applications should be submitted online at: https://engineering.purdue.edu/Eng/AboutUs/Employment/Applications Inquiries can be sent to compengr@ecn.purdue.edu. Review of applications will begin December 1, 2008. Applications will be considered as they are received, but for full consideration should arrive by February 1, 2009. Purdue University is an equal opportunity, equal access, affirmative action employer, and encourages collaborations between Computer Science and other disciplines.

Purdue University Department of Computer Science
Faculty Position in Statistics

Applications are invited for a faculty position in the Department of Statistics, beginning August 2009, with a joint appointment in the Regenstrief Center for Healthcare Engineering. Appointment could be made as the Assistant, Associate, or Full Professor rank depending upon the successful candidate’s skills and experience. The Department of Statistics offers a stimulating and nurturing academic environment, and tenured and tenure-track faculty members direct research programs in a broad range of areas. Further information about the department is available at: http://www.stat.purdue.edu. This position is available at the Assistant Professor level; the Associate Professor level will be considered for highly qualified applicants. Applicants in core areas of statistics and probability, as well as interdisciplinary areas are encouraged to apply. The Department of Statistics offers a stimulating and nurturing academic environment. More than thirty-five tenured and tenure-track faculty members direct research programs in a broad range of areas. Further information about the center is available at: http://www.purdue.edu/discoverypark/nshc/

Purdue University
Computer Engineering in the School of Electrical and Computer Engineering Faculty Position

The School of Electrical and Computer Engineering at Purdue University invites applications for a faculty position at the rank of Assistant, Associate or Full Professor, with appointments starting in September 2009, subject to the availability of funds. Applications are invited for tenure-track positions in computer science and engineering for excellence in research. Salary and benefits are highly competitive, and applicants should apply online at: http://www.stat.purdue.edu/hiring/to apply. Applications should include a cover letter, CV, research statement, and arrange for four letters of reference, and URLs for three to five papers. Applications should be submitted online at: https://engineering.purdue.edu/Eng/AboutUs/Employment/Applications Inquiries can be sent to compengr@ecn.purdue.edu. Review of applications will begin December 1, 2008. Applications will be considered as they are received, but for full consideration should arrive by February 1, 2009. Purdue University is an equal opportunity, equal access, affirmative action employer, and encourages collaborations between Computer Science and other disciplines.

Purdue University Department of Computer Science
Tenure-Track Faculty Positions

The Department of Computer Science at Purdue University invites applications for tenure-track positions at the assistant professor level beginning August 2009. Outstanding candidates in all areas of Computer Science will be considered. The Department of Computer Science offers a stimulating and nurturing academic environment. Forty-four faculty members direct research programs in a broad range of areas including computer science, computer engineering, and electrical engineering. The department has implemented a strategic plan for future growth supported by the higher administration and recently moved into a new building. Further information about the department is available at: http://www.cs.purdue.edu/
with enthusiasm and energy within a will attract and support creative faculty and innovation and promote originality to meet the demands of a changing world. Academic & Provost to shape your Faculty Applied Sciences and in Communication, faculty, SFU is a stimulating and vibrant university of choice for students who seek academic excellence and a memorable experience. Females, minorities, and people with disabilities. All qualified candidates may submit softcopy or hardcopy of their samples of published work. Candidates must submit a cover letter, curriculum vitae, research and teaching statements and related information online at: teaching@tid.es with your CV, reference letters. All letters will be acknowledged. SMU will not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. The Guildhall at SMU is committed to nondiscrimination on the basis of sexual orientation.

Applications for research focused on the following areas:

• IT-enabled transformation of global business processes and ecosystems
• Information security management & IT risk management
• Impact of IT on organizations, firms and industries

In addition to Information Systems & Management research, other positions in SIS are working in the following areas: Data Management & Analytics, Information Security & Trust, Software Systems and Intelligent Systems & Interaction. SIS faculty members in all areas are strongly encouraged to collaborate on innovative research projects and also engage with interdisciplinary projects. SMU’s Office of Research, the SIS’s Research Centre and the Singapore government provide generous support for high quality research proposals.

SIS undergraduate and postgraduate programmes provide the flexibility and operating environment to keep it current. The Guildhall at SMU is a research-driven environment designed from the ground up to provide the flexibility and operating environment for innovation in teaching and research. The Guildhall is an incubator and test-bed and laboratory for experimentation, as well as a fertile ground for ideas. Our faculty and students apply their research results to industry and your appreciation for industry settings, and to create innovative research and teaching statements and relevant information online at: applications from all qualified individuals, in the workplace and encourages diversity in the workplace and encourages applications from individuals, including women, members of visible minorities, Aboriginal persons and persons with disabilities. All qualified candidates are encouraged to apply, although Canadians and Permanent Residents will be given priority.

School of Information Systems (SIS) Openings in Information Systems & Management Applications for research focused on the following areas are invited to interview at Carnegie Mellon University. In 2003, SMU and Carnegie Mellon University (CMU) entered into a close partnership to jointly establish the SMU School of Information Systems (SIS). Carnegie Mellon faculty are actively participating in SIS faculty selection, mentoring and development, and in the design of the SIS undergraduate curriculum, research centre, and post-graduate and professional programmes.

The Guildhall at SMU invites applications for the position of eCenter faculty to teach in the graduate-level digital game development program in the Software Development specialization. Teaching positions are non-tenure track and may submit softcopy or hardcopy of their applications to:

Mary Hoffman
Computer Science Department
Rutgers University
110 Frelinghuysen Road
Piscataway, NJ 08854

Applications should be received by January 20, 2009 for full consideration. Rutgers subscribes to the value of diversity and encourages applications from individuals with varied experiences, perspectives, and backgrounds. Females, minorities, disabled couples, and persons with disabilities are encouraged to apply. Rutgers is an affirmative action/ equal opportunity employer.

Simon Fraser University Faculty of Applied Science Dean Position

A CHALLENGE IN CAREER OPPORTUNITY TO LEAD A BRAND NEW FACULTY SFU, FACULTY OF APPLIED SCIENCE

After 44 years of innovative teaching, research, and community outreach, Simon Fraser University’s (SFU) has launched a university of choice for students who seek academic excellence and a memorable experience. As one of Canada’s Top 10 Employers®, SFU is also a preferred employer on the basis of sexual orientation.

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Temple University
Department of Computer and Information Sciences
Senior Faculty Position
Applications are invited for the position of a senior faculty at Associate Professor level in the Department of Computer and Information Sciences in the College of Science and Technology at Temple University. Applicants are expected to have a record of outstanding research accomplishments, a record of funded research in computer science/engineering, and a commitment to quality undergraduate and graduate programs and instruction. Applications from candidates with significant systems research are encouraged and interdisciplinary research in areas of interest include, but are not limited to:
• Large Scale Distributed Computing Systems
• Wired and Wireless Networks
• Trustworthy and Reliable Computing

Applications consisting of curriculum vitae, a statement of research achievements and vision for research and teaching, up to three representative publications, and names and addresses of at least three references should be submitted online at: http://academicjobsonline.org.

Review of candidates will start on February 15, 2009 and continue until the position is filled. For further information check http://www.temple.edu/cis/email to facultyearch@cis.temple.edu.

Temple University is an equal opportunity, equal access, affirmative action employer committed to achieving a diverse community. Women and minorities are especially encouraged to apply.

Tufts University
Computer Science Department
Cognitive Science - Associate or Full Professor

The Department of Computer Science at Tufts University invites applications for a faculty appointment at the Professor or Associate Professor level in Cognitive Science or related area to begin in September 2009. We seek outstanding candidates who both build the Computer Science presence in the new Tufts Programs in Cognitive and Brain Science and a complement Department expertise in Machine Learning, Human-Computer Interaction, Graphics, and/or Computational Biology.

The Department is a small university that has been nationally ranked as a “Research Class 1” University. Located in Boston, it has a dynamically growing computer science Department. Located just three miles from Cambridge, MA, home to Harvard and MIT, Tufts faculty have opportunities for collaboration and participation in the rich intellectual life of the Boston area. For more information about that department, this position and instructions on how to apply, please visit: http://www.cs.tufts.edu/ (Faculty Search).

Screening of applications will begin December 1, 2008 and continue until the position is filled. Tufts University is an Affirmative Action/Equal Employment Opportunity Employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

Tufts University
Computer Science Department
Graphics & Visualization - Associate or Full Professor

The Department of Computer Science at Tufts University invites applications for a faculty appointment at the Professor or Associate Professor level in Graphics and/or Visualization to begin in September 2009. We seek outstanding candidates who can both build the Computer Science presence in the new Tufts Center for Scientific Visualization and complement the Department’s current research strengths.

Tufts is among the smallest universities to have been nationally ranked as a “Research Class 1” University. Located in Boston, it has a dynamically growing computer science Department. Located just three miles from Cambridge, MA, home to Harvard and MIT, Tufts faculty have opportunities for collaboration and participation in the rich intellectual life of the Boston area. For more information about that department, this position and instructions on how to apply, please visit: http://www.cs.tufts.edu/ (Facultysearch09).

Screening of applications will begin December 1, 2008 and continue until the position is filled. Tufts University is an Affirmative Action/Equal Employment Opportunity Employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

Tufts University
Computer Science Department
Scientific Visualization - Associate or Full Professor

The Department of Computer Science at Tufts University invites applications for a faculty appointment at the Professor or Associate Professor level in Scientific Visualization to begin in September 2009. We seek outstanding candidates who can both build the Computer Science presence in the new Tufts Programs in Cognitive and Brain Science and a complement Department expertise in Machine Learning, Human-Computer Interaction, Graphics, and/or Computational Biology.

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Tufts University
Computer Science Department
Par Lab Postdoctoral Scholar – Employee

The Par Lab, led by John Hennessy and David Patterson, is hiring a postdoctoral scholar to work on a project related to parallel computing.

Applications include a vitae, a personal statement, a select subset of publications, and the names of references. Review of completed applications will begin January 15, 2009. The position is open until filled.

UC Davis is responsive to the concerns of dual-career couples and offers a Partner Opportunity Program. UC Davis is an equal opportunity/affirmative action employer and is dedicated to recruiting a diverse faculty community. We will consider qualified applicants to apply, including women, minorities, individuals with disabilities and veterans.

University of California, Los Angeles
Computer Science Department
Tenure-Track Positions

The Computer Science Department of the Henry Samueli School of Engineering and Applied Science at the University of California, Los Angeles, invites applications for tenure-track positions in all areas of computer science and computer engineering, especially in machine learning, software systems, and emerging technologies related to computer science such as bio-computing, nanotechnology, and nanosystems. Applications are also encouraged from distinguished candidates at senior levels. Quality is our key criterion for applicant selection. Applicants should have demonstrated commitment both to research and teaching and an outstanding record of research for their level of seniority.

The University of California is an Equal Opportunity/Affirmative Action Employer. The department is committed to building a more diverse faculty, staff and student body as it responds to the changing population and educational needs of California and the nation. To apply, please visit: http://www.cs.ucla.edu/recruit

Faculty applications received by January 15 will be given full consideration.

University of California, Merced
School of Engineering
Associate or Full Professor of Electrical Engineering

The School of Engineering at the University of California, Merced invites applications for an endowed professor in Electrical Engineering Computer Science with the possibility of a joint appointment in Computer Science. The primary fields of interest include systems, communication, signal processing, wireless technology and computer systems, RF hardware, circuits and sensors. Other areas in Electrical Engineering will be given consideration as well. We have multiple positions in Electrical Engineering and Computer Science and related areas, and especially encourage cohort applications. Candidates should demonstrate outstanding leadership potential, pertinent to developing a future Electrical Engineering and Computer Science program and to promoting the success of the University of California’s newest campus. The successful candidate will be expected to teach both undergraduate and graduate courses in Electrical Engineering, as well as contribute to courses that further our goals in interdisciplinary education. A Ph.D. in Electrical Engineering or a related field and demonstrated excellence in research are required.

For more information: http://ecs.ucmerced.edu

AA/EOE

University of California, Merced
Computer Science Department
Tenured and Tenure-Track Professors in Computer Science

Applications are invited for tenure-track and associate professor positions in Computer Science.

Texas A&M University
Department of Computer Science
Tenure-Track Faculty Positions

Applications are invited for tenure-track positions, starting Fall 2009, in the Department of Computer Science of the Dwight Look College of Engineering at Texas A&M University. As part of a long-term plan to increase the size and quality of the department, the university is expanding its Computer Science presence in the area of robotics. Top candidates in other areas at all professor levels will also be considered. Candidates must have a Ph.D. degree and be expected to teach, perform research, and supervise graduate students.

The Department of Computer Science has 40 tenured, tenure-track faculty and 4 senior lecturers. Texas A&M University CS faculty members are well recognized for contributions to their fields. The department currently has one National Academy of Engineering member, five IEEE Fellows, one ACM Fellow and over ten P TuCN CAREER awardees. Additional information about the department can be found at www.cs.tamu.edu.

Texas A&M University CS faculty applicants should apply online at: apply.tamu.edu/tenuretrack

For questions or other positions, contact: search@cs.tamu.edu

Applications are welcome from dual career couples.

Texas A&M University is an equal opportunity/affirmative action employer and actively seeks candidates of women and minorities.
West Virginia University/CTeR

Tenure-Track Positions in Biometrics, Identities Management and Computer Security

The Lane Department of Computer Science and Electrical Engineering invites applications for two tenure track faculty positions at the assistant or associate professor level. Applicants should be interested in contributing to and shaping WVU’s rapidly growing programs in identification technology integral to the NSF Center for Identification Technology Research (CTeR). Applicants should demonstrate technical expertise in computer vision, cryptography, intelligent systems and storage, or another relevant area. Successful candidates are expected to develop a vigorous extramurally funded research program in biometrics, identity management or related computer security topics, build effective collaborations, and demonstrate commitment to teaching excellence. An earned Ph.D. in computer science, computer engineering, electrical engineering, or a closely related discipline is required.

West Virginia University (www.wvu.edu) is a comprehensive land grant research institution enrolling over 28,000 students in 113 degrees programs, including engineering and health sciences. CTeR (www.citer.wvu.edu) is a multi-university National Science Foundation Industry/University Cooperative Research Center (I/UCRC) led by WVU. The Center serves as the campus’ focal point for discovery and innovation in identification research. With its 20 federal government and industry affiliates and interdisciplinary set of participating faculty, CTeR provides unparalleled opportunities for collaborative research. CTeR serves as the academic lead for the FBI’s Biometric Center of Excellence, partners with the University of Arizona in the DHS Center of Excellence in Border Security and Immigration, and is the foundation for WVU’s designation as a Center of Excellence in Information Assurance Education. The Lane Department (www.cse.wvu.edu) has 31 tenure-track faculty members, 400 undergraduate students, and 280 graduate students. It offers BS degrees in Computer Science, Computer Engineering, Electrical Engineering, and Biometric Systems; MS degrees in Computer Science, Software Engineering, and Electrical Engineering; and Ph.D. degrees in Computer Science, Computer Engineering and Electrical Engineering. The Department conducts approximately $5 million annually in externally sponsored research, with major research activities in the areas of biometric identification, nanotechnology, power systems, software engineering, and wireless networks. Strong opportunities exist for building collaborative partnerships with nearby federal research facilities, including the Department of Defense, Department of Energy, FBI, and NASA.

Interested candidates must send a letter of application, a CV, contact information for at least three technical references, a research statement, and a statement of teaching philosophy to biometrics-search@mail.wvu.edu. Review of completed applications will begin January 1, 2009, and the positions will remain open until filled. For further information, contact Associate Professor Arun Ross, Search Chair, at Arun.Ross@mail.wvu.edu (queries only).

West Virginia University is an affirmative action, equal opportunity employer dedicated to building a culturally diverse and pluralistic faculty and staff committed to teaching and working in a multicultural environment. Applications are strongly encouraged from women, minorities, individuals with disabilities and covered veterans. Dual career couples are also encouraged to apply.

For more information: http://cse.ucmerced.edu/jobs. AA/EOE

University of California, Merced
School of Engineering
Tenured and Tenure-Track Professors in Computer Science

Applications are invited for tenure and tenure-track faculty positions in Computer Science to begin July 1, 2009. We seek exceptionally qualified candidates in all areas of Computer Science. A Ph.D. in Computer Science or a related field and demonstrated excellence in research are required. For more information: http://cse.ucmerced.edu AA/EOE

University of California, Merced
School of Engineering
Tenured and Tenure-Track Professors in Computer Science

Applications are invited for tenure and tenure-track faculty positions in Computer Science to begin July 1, 2009. We seek exceptionally qualified candidates in all areas of Computer Science. A Ph.D. in Computer Science or a related field and demonstrated excellence in research are required. For more information: http://cse.ucmerced.edu AA/EOE

University of California, San Diego
Department of Computer Science
Multiple Faculty Positions

The UCSD Department of Computer Science and Engineering (CSE) seeks to fill multiple faculty positions at tenured or tenured-track positions. We invite applications at all levels in all areas of computer science and computer engineering, with particular interest in the areas of algorithms and theory, bioinformatics, and graphics. Faculty positions in other than the tenured/tenured-track series are also available. Exceptional candidates in all areas will be given serious consideration.

The department is looking for applicants with outstanding research credentials. Successful applicants are expected to lead a vigorous research program and to have a strong commitment to teaching. A Ph.D. in computer science or a related area is desired. Salary and rank will be commensurate with qualifications and achievements. Applications and nominations for the UCSD Partner Opportunities Program, UC Santa Barbara is now accepting applications and nominations for the inaugural holder of the Veeco Endowed Chair in Engineering and the Sciences. Candidates for the endowed chair must hold a Ph.D. in a field that has benefited from nanoscale characterization, including but not limited to Materials Science, Engineering, Physics, Chemistry, Biology, Energy, Medical, Multidisciplinary Nanoscale or related discipline. Candidates with a research emphasis on scanning probe technologies, and who have demonstrated new scanning probe methodologies to advance the state of the art in their field, are strongly encouraged to apply. The holder of the Veeco Chair may be appointed at a senior, tenure level, with an anticipated start date of July 1, 2009, either in the College of Engineering or in the Division of Mathematical, Life, and Physical Sciences. For more details, please see: http://www.engineering.ucsd.edu/positions All applicants and nominees will be held in confidence by the Search Committee. Please send CV, a statement of research and teaching interests, and a representative published paper to: Dean Matthew Tirrell Attn: Veeco Endowed Chair Search Coll of Engineering University of California Santa Barbara, CA 93106 or to Veeco-Chair@engineering.ucsd.edu. Applications will be shared with appropriate campus departments in the sciences and engineering fields. Apply by March 31, 2009 for primary consideration.
Faculty Positions

UCF School of Electrical Engineering and Computer Science

Applications are invited for exceptional tenure-track faculty at the assistant professor level. EECS is specifically interested in hiring up to six candidates with research in the following two areas:

- Software Engineering: Software processes and workflows, secure and reliable software architectures, software tools and development environments, program comprehension and visualization, software repository systems, and embedded and real-time software, ubiquitous and pervasive computing, emerging software, and computer science education.
- Space Systems: Small satellites, space weather, sensors, embedded systems, imaging systems, communications, command and control, data management, power, and propulsion.

Energy: Renewable energy research and technology, photovoltaics and thermal to electrical energy conversion, distributed energy systems, renewable energy systems and storage, renewable energy control, computational methods for energy systems, and applications of power electronics that includes integrated energy systems. EECS offers a competitive salary and startup package, and UCF provides generous benefits. New faculty members have graduate student support and significantly reduced teaching loads.

Applicants should have a Ph.D. in a related area to EECS disciplines by the start of the appointment and a strong commitment to the academic mission, including teaching, scholarly publications, and sponsored research. Successful candidates will have a record of high-quality publications and be recognized for their potential.

Applicants should have a Ph.D. in electrical engineering or a related discipline. Experience in research and teaching is essential. UCF has established a strong international reputation and is among the nation’s top-10 largest institutions. UCF is committed to diversity and inclusion. The NSM Isenberg Professor will benefit from an environment at the University of Massachusetts at Amherst where research is encouraged through interdisciplinary collaboration. These efforts are bolstered by the Commonwealth of Massachusetts $1 billion Life Sciences Initiative, which has increased faculty recruitment and capital expansion on the Amherst campus. The NSM Isenberg Professor will hold an academic appointment in the appropriate participating department(s) of NSM. These include Chemistry, Biology, Computer Science, Polymer Science and Engineering, Physics, Mathematics, and Statistics. The NSM Isenberg Professor will benefit from an environment at the University of Massachusetts at Amherst that promotes life sciences research through interdisciplinary collaboration. These efforts are bolstered by the Commonwealth of Massachusetts $1 billion Life Sciences Initiative, which has increased faculty recruitment and capital expansion on the Amherst campus.

Applications should include a curriculum vitae, a list of recent research interests and accomplishments (5 pages), and copies of 1-3 key publications. Candidates should send their applications to the search committee to arrange for at least three letters of recommendation after the initial evaluation of applications is completed. Applications should be mailed to: Ms. Cheryl Daggett, Personnel Manager, Department of Natural Sciences and Mathematics, University of Massachusetts at Amherst, MA 01003 or sent by email to daggett@nms.umass.edu.

Applications are encouraged from women, members of minority groups, and individuals with a Ph.D. in a discipline that would be considered an area of strength in EECS, including a move in late 2008 to facilitate hiring. The University of Colorado at Boulder invites applications for two tenure-track faculty positions in the areas of computational biology and bioinformatics, under the auspices of the Colorado Initiative in Molecular Biotechnology (cimb.colorado.edu). Individuals with interests in developing and applying computational or mathematical methods to biological systems are encouraged to apply. See www.colorado.edu for more details.

University of Colorado at Boulder

Other Positions in Cyber-Physical Systems

The University of Colorado at Boulder invites applications for two tenure-track faculty positions in the areas of applied discrete algorithms and machine learning as applied to cyber-physical systems. Applications of interest include, but are not limited to, robotics, smart vehicles, and vehicle systems.

Applications are encouraged from women, members of minority groups, and individuals with a Ph.D. in a discipline that would be considered an area of strength in EECS disciplines by the start of the appointment and a strong commitment to the academic mission, including teaching, scholarly publications, and sponsored research. Successful candidates will have a record of high-quality publications and be recognized for their potential.

Applicants should have a Ph.D. in a related area to EECS disciplines by the start of the appointment and a strong commitment to the academic mission, including teaching, scholarly publications, and sponsored research. Successful candidates will have a record of high-quality publications and be recognized for their potential.

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A new faculty position at the assistant professor level in Electrical and Computer Engineering is available at The University of Illinois at Urbana-Champaign. The Department of Computer Science invites applications for this position. Information about the Thomas Siebel Endowed Chair in Computer Science is available at http://cs.uiuc.edu/.

The Department of Computer Science offers undergraduate and graduate degrees in computer science and engineering, as well as minors and certificates in high-performance computing, computer systems, and computer science education. The department is a major research unit with over 500 graduate students and 2,000 undergraduates. UCF is strongly committed to the academic mission, including teaching, scholarly publications, and sponsored research. Successful candidates will have a record of high-quality publications and be recognized for their potential.

Applications should include a curriculum vitae, a list of recent research interests and accomplishments (5 pages), and copies of 1-3 key publications. Candidates should send their applications to the search committee to arrange for at least three letters of recommendation after the initial evaluation of applications is completed. Applications should be mailed to: Ms. Cheryl Daggett, Personnel Manager, Department of Natural Sciences and Mathematics, University of Massachusetts at Amherst, MA 01003 or sent by email to daggett@nms.umass.edu.

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University of Colorado at Boulder

Assistant Professor Position, Fall 2009

The Computer Science Department seeks applications for one tenure-track assistant professor position commencing August 2009. Applications from all areas of computer science and informatics are invited. We welcome applicants doing research at the frontiers of computing in connection with other disciplines.

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of Human Computer Interfaces and/or Software Engineering. Candidates must hold an earned doctorate in Computer Science or a closely related discipline by the date of appointment.

To apply, visit: employment.unl.edu and complete a Faculty/ Administrative application for requisition number 080713. Attach a letter, CV, and statements describing your proposed research and teaching to your application. The cover letter must include names and contact information for at least three references. Review of applications will begin on December 1, 2008, and will continue until the position has been filled. A more detailed advertisement can be viewed at: http://vace.unl.edu/search

The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, worklife balance, and dual careers.

University of Nebraska-Lincoln
Department of Computer Science and Engineering
Tenure-Track or Tenured Faculty Positions

We invite outstanding individuals with expertise in any area of Computer Systems and Computer Engineering for tenure-track or tenured faculty positions in the Department of Computer Science and Engineering. We are particularly seeking applications in the general area of embedded systems that complement existing strengths in embedded control systems, embedded software, and real-time systems. Exceptional candidates with research interest in Data Visualization and Computational Science and Engineering are also invited to apply.

Candidates are encouraged to collaborate with faculty in appropriate related areas such as robotics, biomedical engineering, computer science, electrical engineering, materials science, or mechanical engineering. The University seeks individuals with exceptional potential, proven record of research achievement who will excel in teaching undergraduate and graduate courses and take a position of international leadership in defining their field of study.

Candidates will hold a PhD in Computer Engineering, Computer Science, Electrical Engineering, or a closely related discipline. Applicants will find many opportunities for research collaborations both within and outside the Computer Science and Engineering Department. To apply, go to: http://employment.unl.edu and complete the Faculty/Administrative application. (080943). The cover letter should include names of at least three references and a statement of teaching and research. Review of applications will begin January 2, 2009, and will continue until the position has been filled. The official advertise can be viewed at: http://vace.unl.edu/search

The University of Nebraska has an active National Science Foundation ADVANCE Institutional Transformation grant, and is committed to pluralistic campus community through affirmative action, equal opportunity, worklife balance, and dual careers.

University of North Carolina at Charlotte
Department of Software and Information Systems
Tenure-Track Faculty Positions

The Department of Software and Information Systems at UNC Charlotte invites applications for multiple tenure-track faculty positions in Software Engineering and Information Technology, with an emphasis in the areas of Information Integration & Environments and Information Security & Assurance; it offers degrees 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.

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. Applicants should provide a Curriculum Vitae; names of at least three references; copies of three representative scholarly publications; and a list of four references. For qualifications or additional information, email search@uncc.edu.

Women, minorities and individuals with disabilities are encouraged to apply. UNC Charlotte is an Equal Opportunity/ Affirmative Action employer.

University of North Carolina at Charlotte
Department of Information Systems
Tenure-Track Faculty Positions

The Department of Information Systems at UNC Charlotte invites applications for multiple tenure-track faculty positions in Information Systems and Information Technology, with an emphasis in the areas of Information Integration & Environments and Information Security & Assurance; it offers degrees 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.

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. Applicants should provide a Curriculum Vitae; names of at least three references; copies of three representative scholarly publications; and a list of four references. For qualifications or additional information, email search@uncc.edu.

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University of North Carolina at Charlotte
Department of Information Systems
Tenure-Track Faculty Positions

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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. Applicants should provide a Curriculum Vitae; names of at least three references; copies of three representative scholarly publications; and a list of four references. For qualifications or additional information, email search@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
Department of Computer Science and Engineering
Tenure-Track Faculty Positions

The University of North Texas is an Equal Opportunity/ Affirmative Action Employer committed to establishing diversity in its educational programs.

University of Northern Iowa
Department of Computer Science
Tenure-Track Assistant Professor Position

The Department of Computer Science at the University of Northern Iowa invites applications for a tenure-track assistant professor position to begin August 2009. Applicants must hold a PhD. in Computer Science or a closely-related discipline. The department seeks candidates who can participate in the Computer Science curriculum, with preference given to candidates able to teach courses in Software Engineering or Computer Systems. Detailed information about the position and the department are available at: http://www.cs.uiowa.edu/

Applicants should submit a letter of application, a curriculum vitae, statements of research and teaching philosophies, and the names and contact information of at least three references to:

Eugene Wallingford, Search Chair
Department of Computer Science
University of Northern Iowa
Cedar Falls, Iowa 50614-5007
wallingf@uni.edu

Applications received by January 15, 2009, will receive full consideration.

EOE/AA: Employment background checks are required. UNI is a smokefree campus.

University of Notre Dame
Department of Computer Science and Engineering
Research Assistant Professor (Faculty Position)

The Department of Computer Science and Engineering at the University of Notre Dame invites applications for a research assistant professor position.

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Professional Opportunities

Assistant Professor Positions, Department of Computer Science

The Department of Computer Science at the University of Calgary seeks outstanding candidates for several tenure-track positions at the Assistant Professor level. Applicants must have a Ph.D. in Computer Science or a related discipline at the time of appointment, and have strong potential to develop an excellent research record.

The Department is one of Canada’s leaders as evidenced by our commitment to excellence in research and teaching. It has an expansive graduate program and extensive state-of-the-art, computing facilities. Calgary is a multicultural city that is fast-growing city in Canada. Calgary enjoys a moderate climate located beside the natural beauty of the Rocky Mountains.

Familiarity with basic bioinformatics studies and microarray data analysis will be in high-dimensional gene expression research agenda with a positive synergistic impact on current faculty, track record of publications, industry experience, teaching experience, and training or experience in one of the following areas: game programming, robotics, embedded systems, networking, or parallel processing.

Salary and rank are competitive, including access to university scientific computing facilities. Calgary is a multicultural city that is a fast-growing city in Canada. Calgary enjoys a moderate climate located beside the natural beauty of the Rocky Mountains.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

To apply: please forward a cover letter, CV/resume, statement of research interests (1-2 pages) and names of 3 references in pdf files to:

Scott Emrich (bioinformatics@usc.
nd.edu)
Department of Computer Science
University of Notre Dame
Notre Dame, IN 46556-0369

University of Puget Sound
Department of Mathematics & Computer Science
Assistant or Associate Professor of Computer Science

Full-time, tenure-line position; begins Fall Term 2009. Teach upper level courses, along with introductory computer science courses. Preference will be given to candidates who have teaching experience, with an emphasis on developing students' problem-solving skills. Preference will be given to candidates whose research interests can incorporate or extend computer science principles.

Applications in the form of a curriculum vitae, a teaching statement, and three letters of reference, at least one of which speaks to the candidate’s promise as a teacher, may be sent by 1/15/09 to:

Computer Science
505 North Waverly
 Tacoma, WA 98416-1007

For further information about the Department, see:

http://www.cs.usask.ca/content/ employment.aspx. Applications will be accepted until February 28, 2009.

University of Texas at Austin
Department of Computer Sciences
Tenure-Track Faculty Positions

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

University of Wisconsin-Madison
Assistant Professor – Computer Graphics/ Multimedia/Visualization

Applications are invited for a tenure-track position at the Assistant Professor level. Applicants should have a Ph.D. in Computer Science or equivalent. The appointment will commence July 1, 2009. We are seeking an outstanding entry-level faculty member in the areas of Computer Graphics/Multimedia/ Visualization, with cognitive subdisciplines such as imaging and human–computer interaction. This individual will have an opportunity to contribute to our multi-disciplinary initiatives in health, syndromic science, high performance computing, and digital media.

The friendly, supportive and collegial environment, combined with our excellent research reputation, makes the Department an ideal place to launch and sustain a successful research career. The University of Wisconsin-Madison is committed to building a diverse community and encourages applications from people of all backgrounds.

Inquiries about your application may be directed to Scott Emrich (bioinformatics@usc. nd.edu). For full consideration of your application, please apply by January 15, 2009.

University of Wisconsin-Madison
Assistant Professor – Computer Graphics/ Multimedia/Visualization

Applications are invited for a tenure-track position at the Assistant Professor level. Applicants should have a Ph.D. in Computer Science or equivalent. The appointment will commence July 1, 2009. We are seeking an outstanding entry-level faculty member in the areas of Computer Graphics/Multimedia/ Visualization, with cognitive subdisciplines such as imaging and human–computer interaction. This individual will have an opportunity to contribute to our multi-disciplinary initiatives in health, syndromic science, high performance computing, and digital media.

The friendly, supportive and collegial environment, combined with our excellent research reputation, makes the Department an ideal place to launch and sustain a successful research career. The University of Wisconsin-Madison is committed to building a diverse community and encourages applications from people of all backgrounds.

Inquiries about your application may be directed to Scott Emrich (bioinformatics@usc. nd.edu). For full consideration of your application, please apply by January 15, 2009.

Women and minority candidates are especially encouraged to apply. The University of Texas at Austin is an Equal Opportunity Employer.

University of Texas at Brownsville
Computer and Information Sciences
Assistant/Research-Assistant Professor Scopes: The Assistant/Research-Assistant Professor will teach courses and advise students in the degrees of Computer Science and Computer Information Systems. The successful candidate will collaborate with colleagues to develop multidisci- plinary research initiatives. Positions are contingent upon funding.

Qualified Requirements: A Ph.D. in Computer Science or a closely related discipline is required. The successful candidate is expected to have a strong commitment to excellence in teaching a broad range of courses in the area, and a demonstrable research capability that will enable external funding, independent research and publishing in leading scholarly journals. Expertise in all areas of computer science is welcome.

Preferred Qualifications: A well defined research agenda with a positive synergistic impact on current faculty, track record of publications, industry experience, teaching experience, and training or experience in one of the following areas: game programming, robotics, embedded systems, networking, or parallel processing.

Closing Date: Applications will be reviewed upon receipt and continue until position is filled.

University of Texas at Dallas
Computer and Information Sciences
Department Head Position

The University of Texas at Dallas invites applications and nominations for the position of the Head of the Department of Computer Science. Candidates for this position must have a Ph.D. degree in Computer Science or a related field.

Qualified candidates must have a demonstrated dedication to undergraduate and graduate education, a strong record of scholarly and professional achievements, leadership and organizational skills and overall qualifications commensurate with the rank of full professor in the Department. The selected candidate will be responsible for recruiting new faculty in the Department, curriculum development and strengthening the educational and research programs in both traditional and interdisciplinary areas, as well as areas capitalizing on existing strengths and excellence of the Johnson School of Engineering.

One of the largest departments of its kind in the country, UTD’s Department of Computer Science features an internation- ally recognized faculty, nearly 1,500 stu- dents in 100+ Student-led building with modern classrooms and state-of-the- art laboratories. Areas of research include cyberinfrastructure, networking, embedded soft- ware, programming languages and systems, human language technology, software engineering, intelligent systems and theory. CS faculty and students publish more than 150 research papers annually. The CS...
**University of Utah**

**School of Computing**

**Tenure-Track Faculty Position in Computer Graphics**

The University of Utah's School of Computing is seeking to hire a tenure-track faculty member in computer graphics at all levels. The School of Computing has a new emphasis on Digital Media and we concurrently have two additional open positions at the senior level: one in the School of Computing in animation, computer games, computational photography, or other related area and a second in Fine Arts with an emphasis on Digital Media. Currently, computer graphics research has strong programs in modeling/meshing, animation, simulation, perception, and scientific visualization. We wish to build upon these successes in areas with a dynamic researcher seeking to develop a strong entrepreneurship program in the computer graphics area, especially areas related to Digital Media. The School of Computing offers a specialized M.S. and Ph.D. Computing Degree graduate track in Computer Graphics and Visualization and a B.S/MS program in Entertainment Arts and Engineering.

Applications should have earned a Ph.D. in Computer Science or a closely related field. The University of Utah is located in Salt Lake City, the hub of a large metropolitan area with excellent cultural facilities and unsurpassed opportunities for outdoor recreation only a few minutes’ drive away. Additional information about the school can be found at www.cs.utah.edu. Please send curriculum vitae, a research goals statement, a teaching goals statement, and names and addresses of at least four references to: Faculty Recruiting Committee c/o Mr. Chris Coleman colemanc@cs.utah.edu

Deadline for applications will be December 15, 2008. Applications will not be reviewed until after that date. Applications received by January 15, 2009, will be fully considered.

Please send applications to: Assistant Professor Position in Computer Graphics

Department of Computer Science

University of Utah

Salt Lake City, Utah 84105-1103

**University of Utah**

**Department of Computer Science & Engineering**

**Open Positions in Robotics**

The University of Utah’s School of Computing is seeking to hire a tenure-track faculty member in the application of machine learning to robotics. The School of Computing has a new emphasis on the Department of Mechanical Engineering the Robotics Track, which is the second graduate program in robotics in the US offering M.S. and Ph.D. degrees. Utah is worldwide known for the robot systems produced by its small company Sarcos, including the Utah/MIT Dextrous Hand, the Sarcos Dextrous Arm, and various humanoid robots. Recently the University of Utah was awarded an NSF IGERT grant on the theme Bioinspired Robotics. This robotics faculty position builds upon the IGERT and complements Robotics Track faculty in the Department of Mechanical Engineering.

Applications should have earned a Ph.D. in Computer Science or a closely related field. We seek dynamic researchers with exceptional research backgrounds who wish to build a strong research program while complementing our current efforts, and are committed to teaching excellence in robotics and related areas of computer science. Please send curriculum vitae, a research goals statement, a teaching goals statement, and names and addresses of at least four references to: Faculty Recruiting Committee c/o Mr. Chris Coleman colemanc@cs.utah.edu

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

**University of Utah**

**School of Computing**

**Faculty Position in Intelligent Systems**

The University of Utah’s School of Computing is seeking to hire a tenure-track faculty member in the area of intelligent systems. The School of Computing has a new emphasis in Intelligent Systems and encourages nominations and applications from women and members of underrepresented groups. The University of Utah’s School of Computing is the second graduate program of study in robotics in the US offering M.S. and Ph.D. degrees. Utah is worldwide known for the robot systems produced by its small company Sarcos, including the Utah/MIT Dextrous Hand, the Sarcos Dextrous Arm, and various humanoid robots. Recently the University of Utah was awarded an NSF IGERT grant on the theme Bioinspired Robotics. This robotics faculty position builds upon the IGERT and complements Robotics Track faculty in the Department of Mechanical Engineering.

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The University of Washington was awarded an Alfred P. Sloan Award for Faculty Career Flexibility in 2006. In addition, the University of Washington is a recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. We are building a culturally diverse faculty and encourage applications from women and minority candidates. The University of Washington is an affirmative action, equal opportunity employer.

University of Washington
Computing Science & Engineering
Senior Faculty Position in eScience

With dedicated financial support from the state, the University of Washington has recently established an "eScience Institute". The overall objective of the Institute is to help position the University at the forefront of research both in modern computational science techniques and technologies (sensor networks, data management, data analysis, etc.) and in the fields that depend upon these techniques and technologies. We are searching for a faculty member who has made outstanding contributions to eScience methodology and has advanced the forefront in one of the application domains either through his/her own work or through collaboration with domain scientists. An ideal candidate would be qualified for a joint appointment in a "methodology department" (Applied Mathematics, Computer Science & Engineering, Mathematics, or Statistics) and in an "application department" (Astronomy, Biology, Genome Sciences, Oceanography ...). We anticipate a hire at the tenured level rapidly providing leadership, although assuming the "Directorship" of the eScience Institute is not a necessity.

Please submit your application through the Web site: http://escience.washington.edu/apply/

Priority will be given to applications received by January 2009, although the search will continue until the position is filled.

Applications must have earned a doctorate by the date of appointment. Appointments at the Assistant Professor, Associate Professor and Professor ranks will be considered. All University of Washington faculty engage in teaching, research, and service.

UW is an affirmative action, equal opportunity employer. We have a culturally diverse faculty and staff and strongly encourage applications from women, minorities, individuals with disabilities and covered veterans. Position contingent on budgetary approval.

University of Washington
Computing Science & Engineering
Tenure-Track Faculty Positions

The Electrical Engineering and Computer Science (EECS) department at the University of Washington is a recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. We are building a culturally diverse faculty and encourage applications from women and minority candidates. The University of Washington is an affirmative action, equal opportunity employer.

Vanderbilt University
Department of ECECS
Tenure-Track Faculty Positions

The Electrical Engineering and Computer Science (EECS) department at Vanderbilt University is seeking candidates for potential faculty appointments in CS, EE and joint appointments at all ranks will be considered, with preference for appointments at the assistant professor level.

Search areas of emphasis in CS

Software engineering, graphics/human-computer interaction, artificial intelligence, and web technologies. Search areas of emphasis in electrical engineering are nanoelectronics/photonics, signal/image processing. In CS and EE, seek opportunities to add to department capabilities in high performance computing/computational science.

In CS and EE, seek opportunities to add to department capabilities in high performance computing/computational science. A Ph.D. in Computer Science, Computer Engineering, Electrical Engineering, or a closely related field is required, as is experience commensurate with the level of appointment sought.

The EECS Department has 32 full-time faculty, 225 undergraduate students, and 170 graduate students. Research awards average $ 600k per tenure track faculty position. For more information, please visit our web site: http://eecs.vanderbilt.edu

Applications consisting of a cover letter specifying the areas of particular interest in EE or CS, a statement of planned research activity and teaching interests, a complete curriculum vitae, and the addresses of four references should be sent as attachments to Professor Daniel M. Fleetwood, Chair, EECS Department, at dan.fleetwood@vanderbilt.edu.

The Institute for Information Infrastructure Protection (I3P)was recently held its fourth Advanced Career Mentoring (CAPP) Workshop for Associate Professors in research, Associate Professors in primarily teaching institutions, and mid-career industry/government lab researchers. Among the speakers were: (l to r) Ellen Walker (Hiram College), CRA board member Laura Haas (IBM Almaden Research Center), and former CRA board member Janie Irwin (Penn State).