



CRA

Computing Research
Association

Computing Research News

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COMPUTING RESEARCH ASSOCIATION, UNITING INDUSTRY, ACADEMIA AND GOVERNMENT
TO ADVANCE COMPUTING RESEARCH AND CHANGE THE WORLD.

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CCC Releases Request for Proposals for New Visioning Activities



The Computing Community Consortium (CCC) invites proposals for visioning workshops that will catalyze and enable innovative research at the frontiers of computing. Successful activities will articulate new research visions, galvanize community interest in those visions, mobilize support for those visions from

the computing research community, government leaders, and funding agencies, and encourage broader segments of society to participate in computing research and education. Past examples can be found [here](#).

Workshop organizers are expected to bring together a group of scientists and practitioners in the area of interest, and to formulate a program that encourages new ideas, innovative thinking, and broad discussion. Workshops can be of varying sizes, typically ranging from 20 to 100 participants. It is important that the participants cover a broad spectrum to ensure full coverage of the area, both in terms of content area representation and employment (academia, industry, research labs, and policy and funding organizations).

Workshops are expected to have a tangible output – for example, a whitepaper (or set thereof) or a workshop report. Workshop outcomes should be targeted to multiple audiences (the research community, science policy groups or funding agencies,

the general public), and the deliverables should be tailored for easy dissemination. CCC will help to support both workshop organization and the subsequent generation and communication of the output.

The CCC encourages creative ideas from all segments of the computing research community on topics ranging from the formulation of new basic research areas and technologies to the use of new or existing research ideas and technologies to address important scientific or societal challenges.

Proposals may be emailed to cccrfp@cra.org at any time. For CCC planning purposes, proposals with start dates prior to September 2015 should be submitted by December 1, 2014. The full RFP and a Visioning Best Practices Guide can be found [here](#). The CCC will host a webinar about Visioning on October 2, 2014 at 1:00pm ET to answer your questions. Please register [here](#) by September 30.



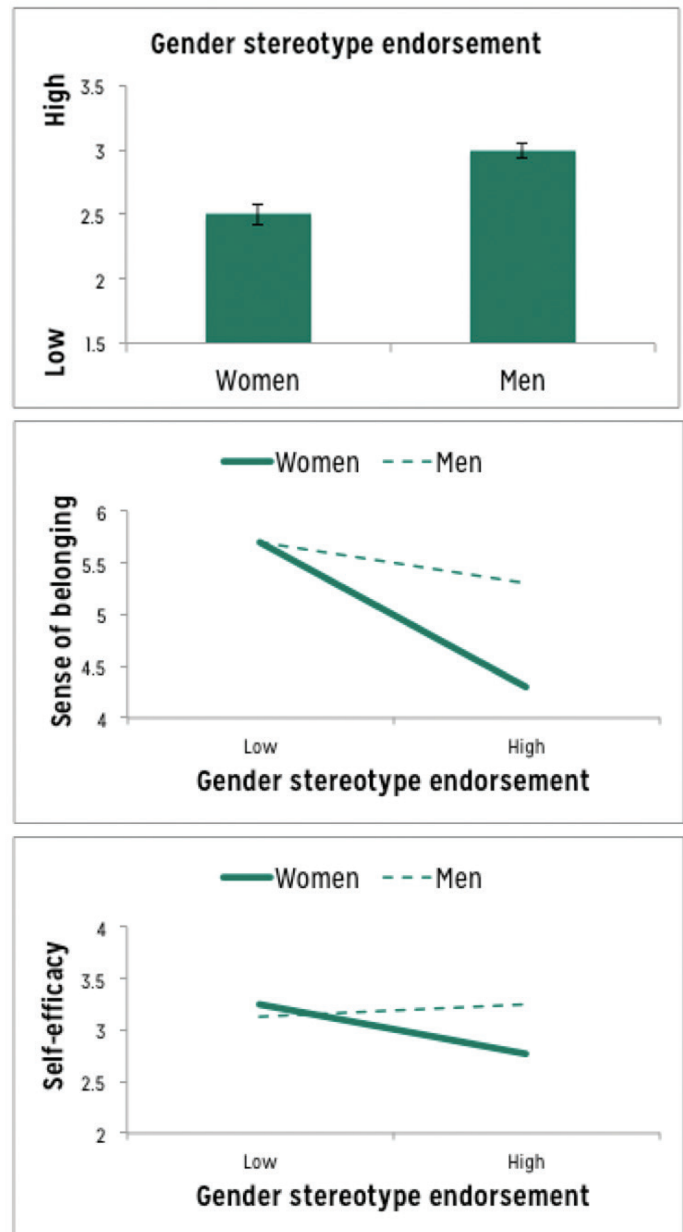
Center for Evaluating the Research Pipeline (CERP) Infographic

By Jane Stout

Women who endorse the negative stereotype that women are less capable in computing than men feel low belonging and self-efficacy in computing

One hundred eighteen graduate students ($n = 75$ women, $n = 143$ men) indicated (a) the degree to which they endorse the stereotype that women are less capable in computing than men; (b) how much they felt they “belong” in computing and (c) their self-efficacy in computing. Men endorsed the negative stereotype to a greater degree than women, $p < .01$. However, among women, stronger endorsement of the negatively stereotype was associated with a lower sense of belonging and lower sense efficacy in computing, $ps < .05$; men’s stereotype endorsement was unrelated to their belonging and self-efficacy. These results highlight the importance of fostering a stereotype-free training environment so that women’s self-concept in computing is unconstrained by negative cultural beliefs about their ability.

Note: Stereotype endorsement was assessed by asking students to indicate their agreement with and aggregating the following items: *Although some women might be good at computing, women in general tend to be better at other things; There is no doubt in my mind that women are just as talented at computing as men are (reverse scored); Computing fits men’s personalities better than women’s; Computing seems to come more naturally to men than women*, using a scale ranging from (1) Strongly disagree – (7) Strongly agree. **Belonging** was assessed by asking students to indicate their agreement with and aggregating the following items: *I feel like I belong in computing; I feel like an outsider in the computing community (reverse scored); I feel welcomed in the computing community; Computing is a big part of who I am; I do not have much in common with other people in computing (reverse scored); I see myself as a computing person*, using a scale ranging from (1) strongly disagree – (7) strongly agree. **Self-efficacy** was assessed by aggregating the following items regarding students’ confidence that they could do the following: *Become the go-to person for expertise in your content area; Publish papers as first author in the top journals of your field; Discuss theory with senior members of your field; Win awards for your work; Articulate thoughtful answers to theoretical questions about your work during a presentation; Successfully receive funding for a grant on which you are the Principle Investigator (PI); Become a respected member of the research community in your research area*, using a scale ranging from (1) Not at all confident – (5) Extremely confident.



CERP
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Evaluation

This analysis is brought to you by the CRA's Center for Evaluating the Research Pipeline (CERP). CERP provides social science research and comparative evaluation for the computing community. To learn more about CERP, visit our website at <http://cra.org/cerp/>.

CERP Receives Additional Grant Funding



Jane Stout, Director of CRA's Center for Evaluating the Research Pipeline (CERP), is the PI on a three-year grant recently awarded to CRA by NSF for the amount of \$783,975. The project, entitled *Promoting a Diverse Computing Workforce: Using National Survey Data to Understand Persistence Across*

Undergraduate Student Groups, will use data collected from CERP's **Data Buddies program**, to understand predictors of student retention in computing, with specific focus on the experiences of underrepresented groups. Data collection for the project will begin during the fall of 2014, and track students' successes and persistence through 2017.

CERP's Data Buddies methodology involves semiannual collection of large-scale, cross sectional survey data that measure the experiences of students pursuing computing career tracks from a variety of institution types (PhD granting; terminal Masters granting; liberal arts colleges; women's colleges; HBCUs; MSIs), and from a wide array of demographic groups (gender; race/ethnicity; first-generation college students; students with disabilities). A particularly striking characteristic of Data Buddies data is that the datasets are large enough to hone in on the experiences of many different student populations – an endeavor that is challenging if not impossible at single-site social science research centers due to underrepresented groups' inherently small size. This project will focus on broadening participation in computing by measuring theoretically validated predictors of achievement and persistence, then assessing whether those predictors are equally important across student groups and across time.

The project's research team is well suited to conduct this type of research. Stout has a PhD focusing on social psychological and education theory, extensive experience

leading large-scale survey research in education settings and expertise in a host of quantitative analytic methods. CERP's two research associates with advanced degrees in social science fields, Ama Nyame-Mensah and Heather Wright, will also work on the project. The project's advisory board is composed of leaders in the computing community who head diversity initiatives for a broad range of student demographics and will play a central role in project oversight: Jamika Burge, Coalition to Diversify Computing (CDC); Richard Ladner, The Alliance for Access to Computing Careers (AccessComputing); Marigold Linton, Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS); Rebecca Wright, Committee on the Status of Women in Computing Research (CRA-W). CERP's infrastructure, the basis for data collection, is well established, as evident by its 4-year history of successfully collecting large datasets from students in computing programs.



The project will generate a clear set of strategies and best practices to promote persistence among a broad range of students at the postsecondary level, which will be offered to computing departments across the country. Stout will present findings to computing departments in CRA's and CERP's professional networks, and at high-impact professional conferences concerned with education in the computing community, such as the CRA Conference at Snowbird and SIGSCE.

Expanding the Pipeline:

“Spotlight on Nancy Amato” by Jennifer L. Welch



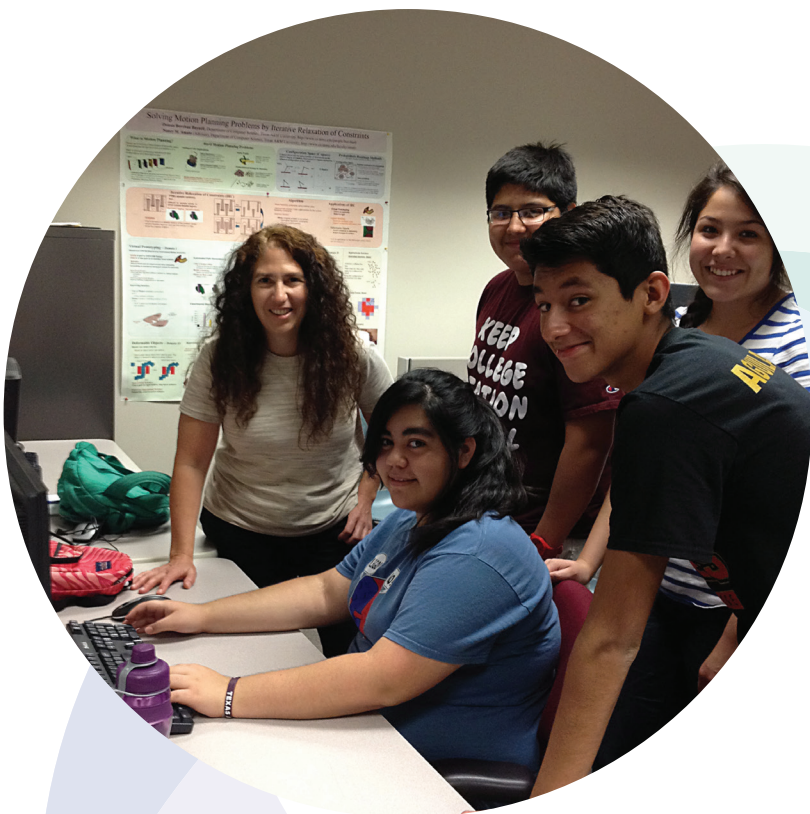
Nancy Amato, Unocal Professor of Computer Science and Engineering at Texas A&M University, has had a banner year. She is the recipient of two prestigious awards, the Habermann and the Harrold/Notkin awards, was elected to the CRA Board, and will shortly become co-chair of CRA-W. She exemplifies teaching,

research and service excellence in computing.

Habermann Award: CRA's A. Nico Habermann award is presented annually to someone who has made outstanding contributions aimed at increasing the numbers and/or successes of under-represented groups in the computing research community. Nancy received this award in 2014. Her passion is getting undergraduates, especially women and members of under-represented groups, involved in research. She has accomplished this goal particularly through her work with the CRA-W/CDC's Distributed Research Experience for Undergraduates (DREU) program and the National Center for Women & Information Technology (NCWIT) Academic Alliance.

Nancy has been a key contributor to CRA-W/CDC's DREU program (formerly known as DMP, Distributed Mentor Program). She joined the DMP as Director (2000-2003) and has been Co-Director since 2004. This highly selective program matches promising undergraduate women, and undergraduate men from groups that are under-represented in computing, with faculty mentors for a summer research experience at the faculty member's institution. Since 1994, roughly 800 undergraduates from 300 institutions and mentors from 100 host research universities have participated in DREU. Nancy's tenure with DREU oversaw a large scale-up in the program, with applications increasing ten-fold (from about 50 in 2000 to more than 450 in 2014) and participation increasing more than three-fold (from about 20 per year to 60-70 per year). In addition, the program expanded from just women to include men from under-represented groups. One of her early efforts

was a successful NSF proposal that funded the program for five years, starting in 2002, with \$1.6M. To handle the scale-up, she developed a web-based system for administering the program, which has been adopted by several other programs, including the Grace Hopper Conference. To increase participation further, she encouraged the mentors to provide matching funding. The DMP project, in part, led to the CRA-W being honored with the 2003 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring for “significant achievement in mentoring women across educational levels.” A study conducted in 2011 showed that 39% of the DREU participants attended graduate school in computing as compared to 22% of



“Nancy Amato working with high school students who are spending the summer in her lab.

Left-to-right: Nancy Amato, Leslie Escalante, Ricardo Gonzalez, Juan Aguilar, Ariana Ramirez.”

students who instead had a comparable, but some other, undergraduate research experience.

Nancy has also contributed greatly to the NCWIT Academic Alliance. NCWIT is a coalition of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women's participation in information technology. Its Academic Alliance (AA) consists of over 275 colleges and universities, which interact with NCWIT to implement changes in higher education regarding women in IT. Nancy was the co-chair of the AA from 2009 to 2011, and since then has served on the advisory committee. While she was co-chair, Nancy set up the current administrative structure for the AA and drafted the bylaws describing the structure. Drawing on her passion for involving undergraduates in research, Nancy conceived and oversaw the NCWIT AA's REU-in-a-box project, in which the AA worked with the NCWIT social scientists to develop a resource that guides faculty in developing research experiences for undergraduates. The material explains the benefits of such experiences and guides prospective faculty mentors through the process.

Harrold/Notkin Award: The NCWIT Harrold and Notkin Research and Graduate Mentoring Award is given in memory of Mary Jean Harrold and David Notkin, to recognize faculty members who combine outstanding research accomplishments with excellence in graduate mentoring. Nancy received this award in 2014 as the first ever recipient. Nancy is a leading researcher in robotic motion planning: she and her students have made important contributions to the algorithmic foundations of sampling-based motion planning and were the first to apply these techniques to protein and RNA folding in computational biology. She also works in computational geometry and in parallel computing, particularly on parallel algorithms and data structures. Her honors include selection as an IEEE Fellow and an AAAS Fellow.

Motion planning deals with finding paths to move an object from an initial position to a goal position in some space. Nancy's work has developed probabilistic roadmap methods (PRMs) for this problem. The original PRM (Kavraki, Svetska, Overmars, and Latombe, 1996) used uniform random sampling to construct a compact representation of feasible paths in the space. Nancy and her students have proposed several

novel PRM variants that use different sampling methods to advance the state of the art and allow PRMs to be applied in areas where previously it had not been feasible, especially in narrow passages.

Nancy has been the leader in using PRMs to study molecular motions, and in particular, to simulate protein and RNA folding. Understanding how these molecules fold is a challenging and important problem in biology. Nancy had the key insight to apply PRMs to this problem. Surprisingly, the only substantive change required was to substitute the collision detection check used for robotic applications with a check that favors protein conformations with low potential energy. This approach allows rapid simulation of detailed information in a way not possible before. As a result, Nancy's group has opened up a new research area in computational biology. Key graduate student participants in this project were Guang Song (Iowa State University), Shawna Thomas (Texas A&M), and Lydia Tapia (University of New Mexico).

Nancy has also made significant contributions in computational geometry. She and her graduate student Jyh-Ming Lien (George Mason University) introduced a novel technique, called approximate convex decomposition, for partitioning a polyhedron into approximately convex pieces. The result provides similar benefits to those obtained from perfectly convex pieces but can be computed much more efficiently. Essentially any problem that deals with large geometric models, including graphics animations, CAD/CAM, and solid modeling, may benefit from this technique.

Finally, Nancy has made important contributions to parallel computing, both systems and algorithms. She collaborates with Lawrence Rauchwerger (also at Texas A&M) on a large project developing a parallel C++ library called STAPL (Standard Templates Adaptive Parallel Library) designed to ease the task of parallel programming; application codes developed using STAPL have been used in three Department of Energy Predictive Science Academic Alliance Program centers. On the algorithmic side, together with student Roger Pearce (LLNL) and his LLNL mentor Maya Gokhale, she developed novel techniques for efficiently processing large graphs, such as social networks, that are "scale-free", a property that creates load balance challenges for parallel processing. Their method overcomes these challenges and

has resulted in experiments that achieved a seventh place rating in the 2011 Graph500 competition and additional experiments that were featured in the 2012 Graph 500 list.

Nancy is a remarkably active and gifted research advisor, both to graduate and undergraduate students. She has built a cohesive research group that not only has a lot of fun, but has been extremely productive in research. Since her arrival at Texas A&M University in 1995, she has graduated 13 PhD students (six from under-represented groups); seven of these students have gone to academic careers, three to research labs, two are postdocs, and one works at a startup company. She has 13 current PhD students (seven from under-represented groups). She has graduated 18 master's students (ten from under-represented groups) and has two current master's students. She has worked with more than 100 undergraduates and nine high school students, the vast majority of whom are women and under-represented minorities.

In 1996, Nancy established and has continuously served as the faculty advisor for Aggie Women in Computer Science (AWICS), an organization devoted to improving the environment, both socially and professionally, for women undergraduate and graduate students in Computer Science and Engineering at Texas A&M. AWICS has been a remarkable success: It has received funding from several companies,

sponsors distinguished lectures, organizes a professional development seminar series, administers a peer-mentoring program, and more. AWICS has brought a large number of women to the Grace Hopper Conferences over the years and was one of the first ACM-W chapters.

CRA Leadership Roles: Nancy was elected to the CRA Board of Directors in February 2014 for a three-year term starting in July 2014. She will begin a three-year term as co-Chair of CRA-W in fall 2014. She has been a member of CRA-E since 2011 and a member of CDC since 2008.

About the Author:

Jennifer L. Welch is Regents and Chevron II Professor of Computer Science and Engineering at Texas A&M University. She received her B.A. from the University of Texas at Austin and her S.M. and Ph.D. from the Massachusetts Institute of Technology. Her research interests are in distributed computing.

Origami-Inspired Robots Spring to Life

From the CCC Blog

Inspired by the traditional Japanese art form of origami, researchers from Harvard University and Massachusetts Institute of Technology (MIT) have figured out how to take flat sheets of specialized paper and plastic and make it self-fold into a complex machine that can “get-up and go”.

The robot starts as a flat sheet with embedded electronics, which can then transform autonomously into a functional machine. This is done using shape-memory composites that fold themselves along embedded hinges to recreate fundamental folded patterns. The origami-inspired robot can fold itself in 4 minutes and walk away without human intervention. This demonstrates the potential for both complex self-folding machines and autonomous, self-controlled assembly.

“This is a new approach of making self-folded machines that have computational and controllable function upon completion of the self-folding process,” said Daniela Rus, Director of the Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT and one of the authors on the Science report titled “A method for building self-folding machines”. Rus is also a member of the Computing Community Consortium (CCC).

In previous work done by Rus and her colleagues, the self assembly was a single step process and all the joints folded simultaneously under a uniform form. That proved to have some limitations, compared to their new multiple-step design.

“The process produces complex shapes that have the ability to self-assemble using multiple steps. The self-assembling process is partially encoded as computation and partially encoded in the mechanical structure. The resulting mechanisms are dynamic and have function—they can move in controlled ways,” said Rus.

There are many potential uses for these self-folding machines, including search-and-rescue scenarios where they could

navigate small tunnels, deploy into space for various forms of exploration, or for self-folding shelters that rapidly assemble in disaster zones. The additional benefit is that these robots can be shipped flat in large quantities and then assembled on-site, making them potentially extremely valuable for our future.

The work was funded by an NSF Expeditions in Computing grant as well as an NSF Emerging Frontiers in Research and Innovation (EFRI) Origami Design for Integration of Self-assembling Systems for Engineering Innovation (ODISSEI) grant. See the Science article for more information.

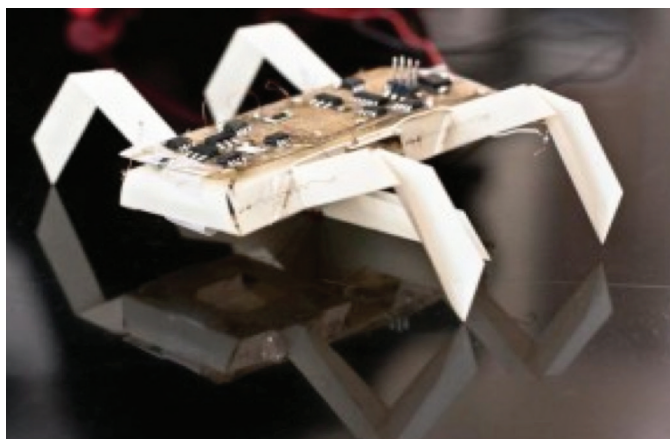


Photo: Jason Dorfman, CSAIL photographer. An insect-like robot printed and designed using the new process being developed to revolutionize the way robots are developed.



Taulbee 2014

New Taulbee

This fall, CRA is implementing a major upgrade to the Taulbee survey.

Why a new Taulbee? We began with the goal of developing the long-requested ability for each department to select an individual peer group and compare key results. As we looked into it, we realized that the entire Taulbee process needed improvement. There were too many user-unfriendly aspects to the online interface, too many ways for bad data to slip through, and too many manual steps in the analysis. We wanted to provide peer group reporting, but even more than that, we wanted to improve the timeliness and accuracy of information available to the computing community.

But I rely on Taulbee! Don't change it! We're changing the infrastructure, not the substance. This year's survey will ask for the same data as last year. The same reports will go back to participating departments and be published in CRN.

So what's new? The underlying survey software and data management are completely different. After reviewing responses to an RFP, we selected a vendor called Peerfocus (www.peerfocus.com) that specializes in helping associations conduct Taulbee-like functions of collecting data from individual members and reporting back aggregate results without letting members see each others' individual responses. Their existing clients include several higher education associations, and their software already had many of the features we required and some we hadn't thought to ask for. The new platform will also have enhanced security capabilities.

What's been done so far? Peerfocus has been working with CRA to configure and customize their system to Taulbee's requirements. Survey entry was beta tested by 12 departments at 11 institutions who re-entered their 2013 Taulbee data; we made a number of fixes and adjustments based on their feedback. (Thanks to the testers at Carnegie Mellon, Drexel, Duke, Georgia Tech, Ohio State, Purdue, Rochester Institute of Technology, University of Maryland Baltimore County, University of Massachusetts Amherst, University of Toronto, and University of Utah.) The new system was demoed at Snowbird in July.

What will the obvious differences be?

If you're responsible for Taulbee data entry, you'll see the following differences:

1. Each Taulbee user will have his/her own individual password, not a group password per academic unit.
2. The survey pages will look different (but collect the same data).
3. There will be additional data validation, including the ability to compare to previous year's data so that the system can question if, for example, you awarded 175 BS degrees last year but report awarding either 18 or 1800 this year.
4. There are administrative features built into the system that mean you should see fewer general messages to all Taulbee users, and more that are applicable to your particular status.
5. There is a section at the end of the survey for feedback on the survey process itself. We welcome your comments and will be very attentive to issues and concerns with the new system so that we can make further improvements.

There will be a user guide to the new system to help make the changeover.

Taulbee Schedule

September 15, 2014 – Pdf for data gathering and new user guide available

October 15 – Online survey open

November 19 – Preliminary deadline (salary data needed by this date)

End of December – Preliminary salary report to participants

January 20, 2015 – Final deadline

Early April – Full report to CRA members and participating departments

May – Full results published in CRN

Spring – Benchmarking/peer group comparison feature available

Updates from CISE

By Suzi Iacono, Acting Assistant Director of NSF for CISE

It was great to see so many of you during this summer's CRA Snowbird conference! The talks were great and the side conversations stimulating. To keep the dialogue going, I want to highlight some of our upcoming activities.

CISE Assistant Director Transition and Search Update

As you know, Farnam Jahanian, who served as the CISE Assistant Director (AD) from March 2011 to August 2014, has transitioned to [Carnegie Mellon University](#), where he is now serving as VP of Research. During his tenure, CISE led three Presidential initiatives: the [National Robotics Initiative](#), the [National Big Data Research and Development Initiative](#), and [US Ignite](#). He oversaw the formulation of more than 25 new solicitations, including several collaborative efforts that spanned multiple NSF directorates, federal agencies, and the private sector. Farnam was a strong advocate for how basic research can be uniquely central to an innovation ecosystem that drives global competitiveness and addresses national priorities. His contributions are sure to provide a lasting legacy for the future of our discipline. The next time you see or talk to Farnam, please thank him for his exceptional leadership to the CISE directorate and community.

NSF is actively [searching](#) for the next AD for CISE. As is customary at NSF, the Deputy AD serves as the Acting AD in the interim. I want to thank the search committee for their work; I expect there will be an update soon.

CISE Committee of Visitors

CISE is convening a [Committee of Visitors \(COV\)](#) this fall for the divisions for Computer & Communication Foundations (CCF), Computer & Network Systems (CNS), and Information & Intelligent Systems (IIS). (The Division of Advanced Cyberinfrastructure (ACI) recently conducted a COV so their next one will be sometime in the near future.)

NSF relies on the judgment of external experts to maintain high standards of program management, to provide advice for continuous improvement of NSF performance, and to ensure openness to the research and education community served by

the Foundation. COV reviews provide NSF with external expert judgments in two areas: (1) assessments of the quality and integrity of program operations and program-level technical and managerial matters pertaining to proposal decisions; and (2) comments on how the outputs and outcomes generated by awardees have contributed to the attainment of NSF's mission and strategic outcome goals.

CISE thanks [Jim Kurose](#) from the University of Massachusetts, Amherst for serving as the chair of the COV and the three vice-chairs who are serving for each of the divisions: [Salil Vadhan](#) of Harvard University for CCF, [Peter Steenkiste](#) of Carnegie Mellon University for CNS, and [Nancy Amato](#) of Texas A&M University for IIS.

CISE Advisory Committee Meeting

We are planning to hold the fall meeting for the [CISE Advisory Committee \(AC\)](#) on November 13-14, 2014. The CISE Advisory Committee provides advice and recommendations to NSF concerning support for computing research, education, and infrastructure. More specifically, the AC provides up-to-date information on the state of the field and the many challenges we all face and advice on the impact of NSF policies and programs on the CISE community and works on special issues, for example, by forming ad hoc subcommittees and working groups to carry out studies, as needed.

Over the past few years, the CISE AC has formed ad hoc groups around the issues of Computer Science Education and Workforce Development, CISE Midscale Infrastructure Investments, and Visioning CISE 2025. Their advice on these issues and others of importance to the CISE community has led to several important outcomes. The agenda of this summer's [CRA Snowbird Conference](#) was a testament to that. Several CISE AC members led sessions to engage the broader community in conversations about these issues and, in addition, held a town hall meeting to discuss the growing enrollments in computing courses. CISE is grateful for the active engagement and thoughtful contributions from our AC members.

The meeting this fall is open to the public and CISE is currently working with the co-chairs, **David Culler** of UC-Berkeley and **Fran Berman** of RPI, to formulate an engaging agenda. One topic that is certain to be on the agenda is the report from the COV chair and vice-chairs.

Other CISE staff changes

CISE is pleased to announce that **Lynne Parker** of the University of Tennessee will serve as the Division Director of IIS beginning in January and will be joining as an expert this fall. **Chaitan Baru** from the San Diego Supercomputer Center at UCSD has recently joined CISE as Senior Advisor for Data Science. We are happy to have Lynne and Chaitan join the CISE team and look forward to working with them.

We also have many new Program Officers joining us, as well as several who have returned to their home institutions. We are also happy to have several new **AAAS** and **Einstein** Fellows joining CISE this fall. The work of the **rotating Program Officers** and Fellows is invaluable to NSF and helps the U.S. to maintain its leadership in scientific discovery and engineering innovation.

Learn more about what's going on in CISE and about the impact from our researchers by visiting the **CISE webpage** and following us on Twitter **@NSF_CISE**.

New Video Showcases CISE-funded Computer Science Curriculum

A new NSF-produced **Science Nation video** illustrates an innovative computer science curriculum – **Exploring Computer Science**, ECS. Created by a team lead by **Jane Margolis** of UCLA, ECS has broadened the participation of students taking computing courses. Today, more than 2,000 students in the Los Angeles United School District (LAUSD) are learning computer science through ECS each year. Many of these students are African American and Latino. In addition, at a time when the national average of female students who participate in AP computer science is about 19 percent, the LAUSD ECS enrollment is 40 percent female – twice the national average.

We're always interested in promoting exciting news from our NSF-funded projects. If there's news that you'd like us to know about, please contact: **gjochum@nsf.gov**.

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Column Editor

Expanding the Pipeline
Patty Lopez, Intel

Professional Opportunities

Brooklyn College

Assistant Professor - Computer Science (Multimedia) - Job# 11204

The Department of Computer and Information Science (CIS) at Brooklyn College - CUNY invites applications for a tenure-track Assistant Professor position beginning Fall 2015. The successful candidate will be required to teach introductory and advanced undergraduate and/or graduate courses in computer science; conduct research in the field; and seek grant funding.

We are seeking candidates who are committed to undergraduate and graduate education at a public, urban institution that serves a highly diverse student body. The individual selected will also help develop multimedia courses and curricula for the department.

Review of applications begins October 30, 2014. For more information and to apply, visit www.brooklyn.cuny.edu/facultyjobs. AA/EOE.

Case Western Reserve University

Engineering Strategic Hiring Initiative

Case Western Reserve University's Engineering Strategic Hiring Initiative continues in 2014 and beyond with a focus on recruiting extraordinary faculty in the broad areas of advanced materials, energy and human health. Research clusters identified as strategic priorities and opportunities for the Case School of Engineering include Biomolecular Engineering, Fire and Materials Flammability, Informatics, and Translational Biomaterials.

Informatics is seeking candidates in the area of informatics, including engineering epidemiology, materials genome, and biomedical/health informatics. Candidates should be grounded in computer and information science or related areas, with an

aptitude for interdisciplinary and translational teamwork. Areas of specific interest include big data management, convergence, mining, and analytics, with the creation of unique tools, methodology, and novel data resources (e.g. time-series, imaging, electronic medical records, sequence, and material properties).

The strategic hiring initiative has attracted outstanding junior and senior candidates interested in being part of a community determined to drive discoveries that improve people's lives. The Case School of Engineering values interdisciplinary thinking, creative collaboration and entrepreneurial ideas. It also believes strongly in the vital importance of diversity within the professorial ranks, both in terms of women and underrepresented minorities.

Successful candidates will hold primary appointments in the Case School of Engineering, although in many instances they will be eligible for additional appointments within the School of Medicine or College of Arts and Sciences, among others.

Candidates seeking positions at the Assistant Professor level and higher should hold an earned doctorate in a field of engineering or related science and demonstrate promise for research and teaching excellence. Those seeking these positions should provide the names and contact information of three references in addition to a cover letter, research and teaching statements and CV. Candidates seeking positions at the Associate Professor level should have established a significant research reputation nationally and possess a record of extramural funding. Candidates seeking positions at the level of full Professor should be recognized internationally for research excellence, leadership and scholarship in their discipline.

We welcome all nominations and applications. For additional information, please visit <http://engineering.case.edu/strategichiring/> or contact Dean Jeffrey Duerk at cseinterest@case.edu.

In employment, as in education, Case Western Reserve University is committed to Equal Opportunity and Diversity. Women, veterans, members of underrepresented minority groups, and individuals with disabilities are encouraged to apply.

Case Western Reserve University provides reasonable accommodations to applicants with disabilities. Applicants desiring a reasonable accommodation for any part of the application and hiring process should contact the Office of Inclusion, Diversity and Equal Opportunity at 216-368-8877. Determinations regarding granting accommodations will be made on a case-by-case basis.

Columbia University

Associate Research Scientist

The Computer Science Dept is looking for an Associate Research Scientist with strong operating system research and development skills to participate in a new research project. The goal of the project is to create a new operating system that automatically evolves its resource management policies for better performance. Current operating systems such as Linux use hundreds of parameters. The values of these parameters are typically fixed at the time of release. Although Linux produces acceptable performance for some cases, in many other cases, its performance is quite poor, and users must tune the parameters to improve performance. This presents challenges for users who do not understand Linux internals. Our project try to solve this problem. Our proposal is to tune performance critical parameters automatically. To speed up the parameter tuning, we will develop a policy cache to store the optimal parameter settings experience before. In this way, we can speed up the searching. This job will try various kinds of searching algorithms and caching policies. To verify the effectiveness of the proposal, we will develop a system

Professional Opportunities

within the Linux kernel and apply it to several kernel subsystems

Minimum Qualifications: Candidate must have a PhD in relevant research field. Expert Level knowledge of Linux kernel programming, Linux kernel performance tuning, search algorithms.

Preferred Qualifications: PhDs in computer architecture and security are preferred. Ability to conduct research as required with proven analytical and problem-solving abilities. Excellent project management skills and experience. Excellent written and oral communication skills. Excellent technical writing and technical documentation ability. Excellent interpersonal, communication and organizational skills with the ability to interact effectively with graduate students and faculty

Applications accepted online only:
academicjobs.columbia.edu/applicants/Central?quickFind=59689

Drexel University

College of Computing & Informatics
Teaching Faculty Positions

Drexel University's College of Computing & Informatics (www.cci.drexel.edu) invites applications for multiple full-time teaching faculty positions. The department of Computing offers BS, BA, MS, and PhD degrees in computer science, as well as BS and MS degrees in software engineering.

Areas of relevant teaching expertise include computer security, computer game programming and design; C++, Java, Python programming; data structures; Unix scripting and program development; CS mathematical foundations; web and mobile app development; systems programming and architecture; software engineering fundamentals; and software specification, design and architecture.

Drexel is a private university committed to research with real-world applications. The university has over 25,000 students in 14 colleges and schools and offers about 200 degree programs. The College of Computing and Informatics has approximately 75 faculty and 2,300 students. Drexel has one of the largest and best-known cooperative education programs, with over 1,200 co-op employers. Drexel is located on Philadelphia's "Avenue of Technology" in the University City District and at the hub of the academic, cultural, and historical resources of the nation's sixth largest metropolitan region.

Review of applications begins immediately. Possession of a doctoral degree in computer science or related disciplines is preferred. To be considered, apply at www.drexeljobs.com/applicants/Central?quickFind=78885

Your application should consist of a cover letter, CV, a brief statement describing your teaching interests, and a list of references. Letters of reference will be requested from the candidates who are invited for a campus interview. Electronic submissions in PDF format are required.

Drexel University is an Equal Opportunity/Affirmative Action Employer. The College of Computing & Informatics is especially interested in qualified candidates who can contribute to the diversity and excellence of the academic community. Background investigations are required for all new hires as a condition of employment, after the job offer is made. Employment will be contingent upon the University's acceptance of the results of the background investigation.

Harvard School of Engineering and Applied Sciences

Tenure-track Position in Robotics

The Harvard School of Engineering and Applied Sciences (SEAS) seeks applicants for a tenure-track faculty position in Robotics. We invite applications in the broadly

defined areas of: dynamics and control (e.g. theoretical controls, biomechanics modeling, multi-body dynamics, system identification); perception; autonomy (e.g. bioinspired approaches to robot autonomy); and human-robot interaction (e.g. biosignal processing). However, applications from strong candidates in the general area of robotics and automation will also be considered. The expected start date is July 1, 2015.

Candidates are required to have a doctorate or terminal degree by the expected start date. In addition, we seek candidates who have an outstanding research record and a strong commitment to undergraduate teaching and graduate training. In particular, we are looking for broadly educated and multidisciplinary applicants who can interact with a wide range of faculty in Robotics and other areas of SEAS. Priority will be given to the overall potential of the candidate.

Required application documents include a cover letter, curriculum vitae, statement of research interests, a teaching statement, up to three representative papers, and names and contact information for three to five references. We encourage candidates to apply by November 1, 2014, but will continue to accept applications until the position is filled. Applicants will apply on-line at <http://academicpositions.harvard.edu/postings/5620>

Robotics research at Harvard benefits from outstanding undergraduate and graduate students, an excellent location relative to neighboring schools and Harvard's teaching hospitals, significant industrial collaboration, and substantial support from the School of Engineering and Applied Sciences. Information about SEAS's current faculty, research, and educational programs is available at: <http://www.seas.harvard.edu>

Harvard University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex,

Professional Opportunities

national origin, disability status, protected veteran status, or any other characteristic protected by law.

ICAP at Columbia University

Development-Operations Specialist

ICAP at Columbia University seeks a DevOps Specialist to join a team of computer and

data scientists, to implement and maintain Informatics systems to manage data collected for reporting and other studies in Public Health.

Major responsibilities include application development and system administration, with international travel opportunities of 2-3 trips per year.

Requires a Bachelor's degree in computer science, informatics, or a related field. Graduate degrees are a plus.

This is a grant-funded, full-time, translational position at Columbia University. More details can be found at: <http://jobs.columbia.edu/applicants/Central?quickFind=143139>

ETH zürich

Professor of Computer Science (Medical Informatics)

The Department of Computer Science (www.inf.ethz.ch) at ETH Zurich invites applications for a Professor of Computer Science in the area of Medical Informatics.

Applicants should have an excellent record of internationally recognized research, which demonstrates a strong link of core computer science (information systems & machine learning) and applications in medicine and life science. Examples for the computer science expertise of the successful candidate include, but are not limited to, medical data analytics, data management, cloud computing, computational medicine, clinical care systems, possibly complemented by computational science or medical imaging.

The professor is expected to establish and lead a research group in the Department of Computer Science with close links to the University Hospital Zurich. Active involvement in the network "Life Science Zurich" is also envisioned, especially with the Competence Center for Personalized Medicine. The professorship is embedded in a vibrant research and teaching community for interdisciplinary medical and life science research that benefits from the proximity of the University Hospital Zurich and ETH Zurich and ranges from biology, systems biology and biotechnology to life science, medicine, and health research in various engineering departments.

Candidates are expected to supervise graduate students, to teach undergraduate level courses (German or English) and graduate level courses (English) in his/her own field of research, and to participate in core courses of computer science. The expectation is to fill the position with a tenured full professor but excellent applications at the (tenure track) assistant professor level will also be considered.

Please apply online at www.facultyaffairs.ethz.ch

Applications should include a curriculum vitae, a list of publications, a statement of future research and teaching interests and the names of at least five references. The letter of application should be addressed **to the President of ETH Zurich, Prof. Dr. Ralph Eichler**. **The closing date for applications is 15 December 2014.** ETH Zurich is an equal opportunity and family friendly employer and is further responsive to the needs of dual career couples. We specifically encourage women to apply.

Professional Opportunities

Institute of Science and Technology Austria (IST Austria)

Call for Assistant Professors and Professors

IST Austria invites applications for TENURE-TRACK ASSISTANT PROFESSOR and TENURED PROFESSOR positions to lead independent research groups in all areas of COMPUTER SCIENCE

IST Austria is a recently founded public institution dedicated to basic research and graduate education near Vienna. Currently active fields of research include biology, neuroscience, physics, mathematics, and computer science. IST Austria is committed to become a world-class research center with 1000 scientists and doctoral students by 2026. The institute has an interdisciplinary campus, an international faculty and student body, as well as state-of-the-art-facilities.

The working language is English.

Successful candidates will be offered highly competitive salaries, and research budgets. Faculty members are expected to apply for external research funds and participate in graduate teaching. Candidates for senior positions must be internationally accomplished scientists in their respective fields.

Deadlines:

Open call for Professor applications.

For full consideration, Assistant Professor applications should arrive on or before November 15, 2014.

Application material must be submitted online: www.ist.ac.at/professor-applications

IST Austria values diversity and is committed to equal opportunity. Female researchers are especially encouraged to apply.

Lehigh University

Department of Computer Science and Engineering

Two Tenure-Track Positions

Applications are invited for two tenure-track positions at the Assistant or Associate Professor level in the Computer Science and

Engineering Department (<http://www.cse.lehigh.edu>) of Lehigh University to start in August 2015. Outstanding candidates in all areas of computer science will be considered.

Lehigh University is a private, highly selective institution that is consistently ranked among the top 40 national research



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

Heidelberg University, Germany

Interdisciplinary Center for Scientific Computing (IWR)

W3-Full Professorship for Image Processing in the Environmental Sciences

Heidelberg University offers a **W3-Full Professorship for Image Processing in the Environmental Sciences** at the Interdisciplinary Center for Scientific Computing (IWR), to be filled by the summer semester of 2016.

We are looking to hire an internationally renowned first-rate scientist who can cover as many facets of Computational Imaging as possible in the range from pure theory to applications. The interdisciplinary cooperation with the Department of Physics, in particular with the Institute of Environmental Physics, as well as with industry, is an important feature of this Professorship. The chairholder is expected to play a leading role in the industry-on-campus project "Heidelberg Collaboratory for Image Processing (HCI)". As a consequence, we expect extensive experience with industrial cooperations and in the acquisition of third-party funding. Participation in teaching is required.

Formal prerequisites are a university degree as well as, according to § 47.2 of the state university law, either a habilitation, or a junior professorship that has successfully passed an evaluation, or comparable experience.

The Chair is a core professorship of the Interdisciplinary Center for Scientific Computing and associated with the Department of Physics and Astronomy, in particular with the Institute of Environmental Physics.

Heidelberg University seeks to increase the percentage of female scientists in all areas in which they are currently under-represented. Qualified female scientists are particularly encouraged to apply. Provided equal qualification and aptitude, severely handicapped applicants are treated preferentially.

Please send applications including CV, list of publications, teaching record and transcripts, as well as an exposé of 5-10 pages on the long-term future development of the HCI, both as a single pdf to dekanat@physik.uni-heidelberg.de, and by postal mail to the Dean of the Faculty of Physics and Astronomy, Im Neuenheimer Feld 226, 69120 Heidelberg, Germany by **November 30th, 2014**.

Professional Opportunities

universities by U.S. News & World Report. The faculty of the Computer Science and Engineering department includes ACM and IEEE fellows and NSF CAREER award winners. We offer a variety of undergraduate and graduate degree programs in Computer Science and Computer Engineering. Located in Bethlehem, Pennsylvania, Lehigh is 80 miles west of New York City and 50 miles north of Philadelphia, providing an accessible and convenient location that offers an appealing mix of urban and rural lifestyles.

Applications can be submitted online at <https://academicjobsonline.org/ajojobs/4239> and should include a cover letter,

vita, both teaching and research statements, and contact information for at least three references. Review of applications will begin December 1, 2014 and will continue until the positions are filled.

Lehigh University is an affirmative action/equal opportunity employer and provides comprehensive benefits including domestic partner benefits (see also <http://www.lehigh.edu/worklifebalance/>). Lehigh University is a 2010 recipient of an NSF ADVANCE Institutional Transformation Grant. Read more at <http://www.lehigh.edu/luadvance/>. Lehigh Valley Inter-regional Networking & Connecting (LINC) is a

newly created regional network of diverse organizations designed to assist new hires with dual career, community and cultural transition needs. Please contact infdcap@lehigh.edu for more information. Questions concerning this search may be sent to faculty-search@cse.lehigh.edu.

Louisiana Tech University

Programs of Computer Science and Cyber Engineering

Tenure-Track Faculty Positions

Applications are invited for multiple faculty positions, at all ranks, in the Computer Science and Cyber Engineering programs within the College of Engineering and Science (COES) at Louisiana Tech University for highly qualified research faculty and educators.

The candidate must have earned a Ph.D. degree in the Computer Science or a closely related field. Proven research track record, outstanding teaching skills, excellent written and oral communication skills, and a demonstrated commitment to high quality student success are expected. Successful candidate will be expected to perform exceptional research, procure extramural funding to support research, advise graduate and undergraduate students, collaborate with other faculty, and teach effectively both at undergraduate and graduate levels. Areas of interest include cyber defense and resilience, active authentication, mobile and cloud security, critical infrastructure and systems security, cyber-physical and trustworthy systems, digital forensics, and agile software development. Other areas can also be considered.

Louisiana Tech is designated as a Tier 1 national university by the 2014 U.S. News & World Report college rankings, and is the only Tier 1 national university in the nine-member University of Louisiana System. COES currently enrolls over 2,000 students, including 200+ masters and 150+ doctoral



Indiana University School of Informatics and Computing Chair of Computer Science Faculty Positions in Computer Science and Informatics

The School of Informatics and Computing (SoIC) at Indiana University Bloomington invites applications for **chair of computer science**, a full professor with a 3-year initial term as chair, and for two asst/assoc/full professors, in **complex networks and systems (CX)** and in **interactive and intelligent systems (IIS)**.

Chair applicants should have a world-class research record, a strategic vision for excellence in Computer Science research and education, and the academic and research leadership skills to advance that vision. IU Computer Science is strong and rapidly growing with 39 tenure-line faculty, many hired in the last 5 years.

CX applications are especially encouraged from established leaders, who will have opportunities for leadership roles in the Center for Complex Networks and Systems and in a new and ambitious university-wide network science initiative to be announced.

IIS applications are welcome from a range of related areas such as computer vision, smart imaging, pervasive computing, social robotics, and internet of things.

Applicants should have an established record (senior level) or demonstrable potential for excellence (junior) in research and teaching, and a Ph.D. in a relevant area, or (junior) expected by 8/15.

The SoIC is the first of its kind and among the largest in the country, with unsurpassed breadth. Its mission is to excel and lead in education, research, and outreach spanning and integrating the full breadth of computing and information technology. It includes Computer Science, Informatics, and Library and Information Science, with over 85 tenure-line faculty, 900 graduate students, and 1100 undergraduate majors. It offers Ph.D.s in Computer Science, Informatics, and Information Science.

Bloomington is a culturally thriving college town with moderate cost of living and amenities for an active lifestyle. IU is renowned for its top-ranked music school, HPC and networking facilities, and performing and fine arts.

Applicants should submit a CV, a statement of research and teaching, and names of 6 references (3 for junior level) using links below (preferred) or to Faculty Search, SoIC, 919 E 10th St, Bloomington, IN 47408. Chair candidates should also submit a statement of leadership philosophy and vision for IU CS. Questions may be sent to hiring@soic.indiana.edu. For full consideration applications are due by 12/1/14.

<http://indiana.peopleadmin.com/postings/968> (Chair, CS)
<http://indiana.peopleadmin.com/postings/969> (CX)
<http://indiana.peopleadmin.com/postings/970> (IIS)

Indiana University is an equal employment and affirmative action employer and a provider of ADA services. All qualified applicants will receive consideration for employment without regard to age, ethnicity, color, race, religion, sex, sexual orientation or identity, national origin, disability status or protected veteran status.

Professional Opportunities

students. Annual research expenditures of the College have averaged \$16M over the past three years. The College is concluding a building campaign to build a new Integrated Engineering and Science Education Building that will provide 100,000 square feet of space to expand its focus on project-driven curricula. COES launched the nation's first BS in Cyber Engineering degree in 2012, and has recently embarked on a bold partnership to significantly grow capacity and graduates in computer science, cyber engineering and related areas to support targeted economic development efforts in the region. More details about the College and the programs of Computer Science and Cyber Engineering are available at: <http://coes.latech.edu>. Both undergraduate and graduate degrees are offered in the disciplines.

To apply, send (1) a cover letter, (2) a detailed curriculum vitae, (3) a vision statement of research, (4) a teaching statement, and (5) full contact information for at least four references, in a single PDF file electronically to cscfacultysearch@latech.edu with the subject line "CS/CYEN Faculty Application: <Applicant's Last Name, Applicant's First Name>". Outstanding candidates can also be nominated with a corresponding letter of qualification. Review of applications and nominations will begin on September 1, 2014, and will continue until suitable candidates are identified. Inquiries can be submitted to Dr. Sumeet Dua, Director of Computer Science and Cyber Engineering at sdua@latech.edu.

Louisiana Tech University is an Affirmative Action/Equal Opportunity Employer. Women and underrepresented minorities are strongly encouraged to apply.

Lyric Labs

Machine Learning Lead Software Engineer

How can we democratize machine learning to make it available to 1000 times more people? What is the GPU of machine learning? Can we redefine how processors work to make statistical inference more efficient? These are just some of the problems researchers at Analog Devices Lyric Labs are working on. Come help us define the future of probabilistic computing! Analog Devices Lyric Labs is the world leader in developing novel combinations of hardware and software to solve challenging real-world problems. Our team is working in areas such as machine learning, probabilistic programming, and hardware accelerated Bayesian inference, with application in audio processing, communications infrastructure processing, time series modeling, vital signs monitoring, and low-power semantic signal processing.

We are looking for a talented and passionate person to lead a team developing the next-generation of probabilistic programming software and algorithms. In this role you'll have an opportunity to help set the direction in the field of probabilistic programming, to collaborate with world-class researchers in the field, to advance the state of the art in probabilistic programming and Bayesian inference, and to publish and present your results to the academic community. You'll help build a user community, and find new applications and new ways to apply these tools to the real world. And you'll be hands on in creating cutting-edge open-source software.

Required skills include:

- Masters degree or PhD in computer science, mathematics, or physics
- Strong background in probabilistic graphical models, Bayesian inference, machine learning, and optimization
- Ability to collaborate with research colleagues and to foster research

- collaborations with academia and industry
- Ability and interest in building a user community, championing our work, and exploring potential application areas
- Strong programming skills with knowledge of software architecture, data structures, and algorithms
- Substantial experience with Java or similar languages
- Comfort with programming in multiple languages
- Skill in rapid prototyping
- Familiarity with professional software engineering tools and techniques
- Excellent communication skills
- A passion for learning and problem solving

Preferred:

- Experience in high-performance computing
- Experience with low level processor architectures (e.g., GPU, DSP)
- Experience with open source software projects
- MATLAB
- Python
- C/C++

Interested candidates should apply on line at www.analog.com/careers. In the Job Search/Experienced - Search and Apply section, please search on requisition 140823 and follow the instructions to submit your application.

Marquette University

Assistant Professor in Information Assurance/Security

The Department of Mathematics, Statistics and Computer Science at Marquette University invites applications for a tenure-track Assistant Professor position to begin August, 2015. Preference will be shown to those with a research program in information assurance, cybersecurity or cryptography.

The ideal candidate would have a Ph.D. in computer science or a related field;

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contribute to our undergraduate and graduate programs; seek external funding to support collaborative, interdisciplinary research; play a role in creating a possible degree specialization in Information Assurance and Cyber Defense; and participate in regional chapters of professional security organizations. The Department is comprised of 27 full-time faculty and places emphasis on basic, applied and collaborative research, teaching, and interdisciplinary programs. For more information about the Department and its programs see <http://www.mu.edu/mscs>.

Marquette University, an EOE that values diversity, is a Jesuit, Catholic University with a wide range of undergraduate and graduate programs. We seek candidates who will contribute to its mission, a statement of which can be found at <http://www.mu.edu/about/mission.shtml>. Candidates from underrepresented groups are especially encouraged to apply.

All applications must be received through the University's online recruitment system, <http://employment.marquette.edu/postings/3153>. Review of applicants will begin November 14, 2014, and will continue until the position is filled.

National University of Singapore

Multiple Tenure-Track Faculty Positions

The Department of Computer Science, National University of Singapore (NUS), has openings for several tenure-track faculty positions. Our main focus is on candidates at the Assistant Professor level with research interests in the following areas:

- Cyber-physical systems
- Big data analytics
- Security
- Sensor data modelling and learning

These areas are to be viewed in a broad sense, and we are particularly interested

in candidates whose research interests cut across these and related areas. We seek candidates demonstrating excellent research potential and a strong commitment to teaching. We will also seriously consider exceptional candidates in other areas of computer science. Further, we will consider candidates at senior ranks (Associate and Full Professor) who have an outstanding record of research accomplishments.

We are an internationally top-ranked department with low teaching loads, excellent facilities, and intensive external collaborations. Significant funding opportunities abound for strong candidates. The research of the faculty covers all the major areas of computer science and is well represented at prestigious international conferences and journals. The department has a thriving PhD programme and it actively strives to attract the best students from the region and beyond. More information can be found at <http://www.comp.nus.edu.sg/>.

NUS offers highly competitive salaries and generous benefits, while Singapore provides a vibrant international environment with world-class health care, excellent infrastructure, a warm climate and very low taxes.

Interested candidates are invited to send, via electronic submission, the following materials to the Chair of the CS Search Committee, Prof. P.S. Thiagarajan, at csrec@comp.nus.edu.sg

- Cover letter
- Curriculum Vitae
- A teaching statement
- A research statement
- Contact information for at least three references

Applications will be reviewed as they are received and will continue until the positions are filled. However, to ensure maximal consideration applicant should submit their materials by December 15, 2014.

Neukom Fellows at Dartmouth College

Call for Applications

The Neukom Institute for Computational Science at Dartmouth College is pleased to announce the Neukom Fellows competition for positions starting September 1, 2015. Neukom Fellows are interdisciplinary positions for recent Ph.D.s, DMAs, or MFAs whose research interests or practice cuts across traditional disciplinary boundaries, but has some computational component, whether it be a framing concept for intellectual exploration or an explicit component of the work that is pursued. The successful candidate should have a history of collaborative work across disciplines, but still show good evidence of independence and initiative. The Fellowships are two- to three-year appointments, with the third year extension considered upon request after a review early in the second year. Neukom Fellows will be mentored by faculty in two departments at Dartmouth College, take up residence in one department, and will teach one seminar course each year on a subject of their interest. Beyond that there are no additional duties. Neukom Fellow stipends are \$60,000 for 2015-2016. Additional funds are available for equipment, travel, and research materials.

Full description and Applications must be submitted here: <https://academicjobsonline.org/ajol/jobs/4286>

For more information on The Neukom Institute: <http://neukom.dartmouth.edu/>

New Mexico State University

Tenure-Track Position

The Computer Science Department

at New Mexico State University invites applications for a tenure-track position at the *Assistant Professor* level, with appointment starting in the Fall 2015 semester. We are

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seeking strong candidates with research expertise that can effectively complement the research foci of the department; we are particularly interested in expertise in the areas of data management and analysis. Applications from women, members of traditionally under-represented groups, and other individuals interested in contributing to the diversity and excellence of the academic community are strongly encouraged.

For the full position announcement, please visit: <http://jobs.nmsu.edu/postings/19212>

New Mexico State University

Tenure-Track Position

The Computer Science Department

at New Mexico State University invites

applications for a tenure-track position at the Assistant Professor level, with appointment starting in the Fall 2015 semester. We are seeking strong candidates with research expertise that can effectively complement the research foci of the department; we are particularly interested in expertise in the areas of Software Engineering, Programming Languages, Compilers, and Operating Systems. Applications from women, members of traditionally under-represented groups, and other individuals interested in contributing to the diversity and excellence of the academic community are strongly encouraged.

For the full position announcement, please visit: <http://jobs.nmsu.edu/postings/19305>

New York University

*Courant Institute of Mathematical Sciences
Arts and Science*

*Clinical Assistant/Associate Professor
Position in Computer Science*

The Computer Science Department at New York University has an opening for a Clinical Assistant or Associate Professor position to start January 15, or September 1, 2015, subject to budgetary and administrative approval. This is a full-time non-tenured, non-tenure-track three-year contract faculty position which is potentially renewable. The main duty is to teach three courses during each of the fall and spring semesters in the department's undergraduate or graduate program and additionally to participate in curricular development, program



Portland State University Electrical & Computer Engineering

Assistant/Associate Professor (Design Verification; Tenure-Track)
Senior Instructor/Assistant Professor (Design Verification; Fixed-Term)

The Electrical and Computer Engineering (ECE) Department at Portland State University (PSU) seeks outstanding candidates for a tenure-track and non-tenure track fixed-term faculty in design verification/validation.

The ideal candidate for the tenure-track professor position has strong leadership skills, possesses a passion for teaching and research, has a demonstrated ability to attract and execute funded research, and is intimately familiar with current industry standards and needs. The candidate is expected to build and lead a strong and unique research program.

The ideal candidate for the non-tenure track fixed-term position has a strong passion for education along with proven teaching skills, and a desire to develop a compelling curriculum. The candidate must have significant industry experience in verification/validation. Expertise in hardware emulation is preferred.

Located in the heart of one of America's most progressive cities, PSU is Oregon's largest and most diverse public university. The downtown campus is a vibrant center of culture, business, and technology. Portland and the nearby Silicon Forest are hosts to many high-tech companies.

Additional information and requirements for applying are at <https://jobs.hrc.pdx.edu>. Positions #D93193 and #D93195.

PSU is an Affirmative Action, Equal Opportunity institution and welcomes applications from diverse candidates and candidates who support diversity.

Professional Opportunities

administration, and other educational activities. Applicants should have an M.S. or Ph.D. in Computer Science or a related field. A Ph.D. is preferred.

To apply, please arrange for a CV and for three letters of recommendation to be sent by email to jobs@cs.nyu.edu. To guarantee full consideration, complete applications should be received by October 15, 2014.

However, all candidates will be considered to the extent feasible until the position is filled. NYU is an Equal Opportunity/Affirmative Action Employer.

Princeton University

Computer Science

Assistant Professor- Tenure Track

The Department of Computer Science at Princeton University invites applications for faculty positions at the Assistant Professor level. We are accepting applications in all areas of Computer Science. Applicants must demonstrate superior research and scholarship potential as well as teaching ability. A PhD in Computer Science or a related area is required. Candidates should expect to receive their PhD before Fall, 2015. More senior appointments may be considered for extraordinary candidates. Successful candidates are expected to pursue an active research program and to contribute significantly to the teaching programs of the department. Applicants should include a CV and contact information for at least three people who can comment on the applicant's professional qualifications. There is no deadline, but review of applications will be underway by December 2014.

Princeton University is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.

This position is subject to the University's background check policy.

You may apply online at: <http://jobs.cs.princeton.edu/>

Santa Clara University

Computer Engineering Department

Assistant Professor

The Department of Computer Engineering at Santa Clara University invites applications for a tenure-track Assistant Professor position starting in the 2014-2015 academic year. Applicants must hold a doctorate in computer science, computer engineering, or in a closely related field with preferred specialization in the Web, security, networks, user-experience (UX), or machine learning although strong candidates in any field will be considered. Applicants must have a strong commitment and ability to teach at both the undergraduate and graduate levels and must have demonstrated a strong potential for research in computing.

The full-time teaching load is normally seven course equivalents per academic year (including lectures and supervision of labs, theses and projects), distributed across three quarters of ten weeks each. However, course release(s) are typically approved for faculty actively involved in research. Salary is based on expertise and experience.

Santa Clara University (<https://www.scu.edu>) is a comprehensive Jesuit, Catholic university, located in the heart of Silicon Valley. Distinguished by the highest retention rate and ranked second among all master's universities in the West by U.S. News and World Report, Santa Clara University is California's oldest operating institution of higher-education. The School of Engineering is committed to improving the human condition through engineering education, practice, and scholarship, promoting the

University's mission to 'fashion a more humane, just and sustainable world'.

SCU maintains small class sizes and promotes close faculty/student interaction. The University enrollment is approximately 5,500 undergraduate and 3,700 graduate students. The Department (<http://www.scu.edu/engineering/cse/>) offers B.S., M.S. and Ph.D. degrees, with 14 full-time faculty, and a strong pool of approximately 30 part-time adjunct faculty who instruct over 200 undergraduate majors, and about 350 part-time and full-time graduate students. The School of Engineering maintains strong ties to local industry.

The proposed start date is September 1, 2014 (a start date of January 1, 2015 may also be considered).

Applicants should submit detailed CVs, statements of research interests, statements of teaching interests, and names and contact information of three professional references. All materials should be submitted online at <https://jobs.scu.edu/postings/l667>

Review of applications will begin upon receipt and the search will remain open until the position is filled.

EEO / AA Policy:

Santa Clara University is an equal opportunity/Affirmative Action employer and welcomes applications from women, persons of color and members of other historically underrepresented U.S. ethnic groups. The University welcomes and honors people of all races, genders, creeds, cultures, and sexual orientations and values intellectual curiosity, pursuit of knowledge, and academic freedom and integrity. The University will provide reasonable accommodations to individuals with a disability.

Professional Opportunities

Simon Fraser University

School of Computing Science

Ph.D. and M.Sc. positions in Computational Biology and Computer Science

The international graduate training program **Computational Methods for the Analysis of the Diversity and Dynamics of Genomes (MADD-Gen)**, under the leadership of Dr. Sahinalp, with the participation of Drs. Collins, Cherkasov and Wang, is accepting applications for Ph.D. and M.Sc. students to study at Simon Fraser University and the Vancouver Prostate Centre, commencing in 2015. This international graduate program is a close cooperation with Bielefeld University, Germany, graduate program: DiDy (www.didy.uni-bielefeld.de) and Simon Fraser University, Vancouver, Canada, graduate program: MADD-Gen (www.bigdatagenomics.ca).

Research will focus on the development of methods of high importance for the practical comparative analysis of genomes, in particular in view of both the variation between individuals (diversity) and the change in populations over time (dynamics). Our program aims at training specialists in handling big data related to genomics and molecular biology. Candidates must demonstrate a broad background in the interdisciplinary field of bioinformatics in general, and deep knowledge in the area they apply for.

Our program is targeted at students with a strong background in Computational Biology, Bioinformatics, Computing Science, Mathematics or a related field. Students must be able to communicate their work to the research group, and to quickly integrate into both the Bielefeld and Vancouver environment. Good communication skills are demanded. Ph.D. students will receive funding of CAD \$25,000, CAD \$21,000 for M.Sc. students, per year throughout their studies. Funding sources include scholarships by the CREATE Training

Program of the Natural Sciences and Engineering Research Council of Canada (NSERC), and internal SFU scholarships.

For more information email: madd-gen-admin@sfu.ca

University of Arizona

School of Information: Science, Technology, and Arts

*Postdoctoral Research Associate(s) -
Job number: 55346*

University of Arizona seeks one or more postdoctoral researchers in each of machine learning and natural language processing (or closely related areas) to work on a DARPA project under the direction of Professors Mihai Surdeanu, Kobus Barnard, and Clayton Morrison. The goal of the project is to automate reading of research papers (initially in the biology domain) to extract and reason over explanatory, causal models of complicated systems, such as cancer signaling pathways. Funding is available for up to three years, renewed yearly pending excellent performance reviews.

The University of Arizona is an extraordinarily collaborative place, especially for work in computational intelligence. Tucson is a beautiful environment for both scholarship and sport, and the sun shines almost every day.

Duties and Responsibilities

Assist with research in and management of projects involving machine learning and natural language processing.

Qualifications

A PhD in computer science or closely related field. Ideal candidates will have strong backgrounds in either modern statistical and machine learning techniques (e.g., graphical models) or natural language processing, with information extraction expertise being particularly attractive. Candidates should

also should have an interest in building and evaluating moderately complex, large-scale, multi-investigator systems.

Applicants should apply here: <https://www.uacareertrack.com/applicants/jsp/shared/frameset/Frameset.jsp?time=1400869559831>

University Of California, Davis

Department Of Statistics

Faculty Positions: Assistant/Associate/Full

The Department of Statistics at UC Davis invites applications for multiple tenure-track Assistant Professor, tenured Associate and Full Professor positions from qualified individuals with a Ph.D. in Statistics or a related field. Applicants are expected to have active research interests in statistical methods that are related to large and complex or massive data sets. Special consideration will be given to candidates with demonstrated interests in machine learning, geometrical and nonlinear methods in statistics, including the analysis of spatio-temporal, functional-longitudinal, shapes, networks and other object data, deep/innovative scientific applications in various fields such as biological sciences and imaging, and big data-computing intensive methods. Candidates must possess a strong commitment to providing service to the department, university and statistics community. An outstanding record of research, professional activity and teaching are required for appointment with tenure, and demonstrated interest and the potential to achieve such a record are required for a tenure-track appointment. The position will begin 07/01/2015.

Application review begins 11/01/2014 until positions are filled. See <http://www.stat.ucdavis.edu/employment/academic/> for more information. To apply, go to <https://recruit.ucdavis.edu/apply/JPF00329>

UC Davis is an affirmative action/equal employment opportunity employer and is

Professional Opportunities

dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, individuals with disabilities and veterans.

University of Chicago

Associate Professor

The Department of Computer Science at the **University of Chicago** invites applications from exceptionally qualified candidates in the areas of (a) systems, and (b) theory of computing for faculty positions at the rank of **Associate Professor**.

Systems is a broad, synergistic collection of research areas spanning systems and networking, programming languages and software engineering, software and hardware architecture, data-intensive computing and databases, graphics and visualization, security, systems biology, and a number of other areas. We encourage applicants working within our strategic focus of data-intensive computing, but also in all areas of systems.

The Theory of Computing ("Theory" for short) strives to understand the fundamental principles underlying computation and explores the power and limitations of efficient computation. While mathematical at its core, it also has strong connections with physics (quantum computing), machine learning, computer vision, natural language processing, network science, cryptography, bioinformatics, and economics, to name just a few areas. We encourage applications from researchers in core areas of Theory such as complexity theory and algorithms as well as in any area with a significant Theory component.

The University of Chicago has the highest standards for scholarship and faculty quality, is dedicated to fundamental research, and encourages collaboration across disciplines. We encourage connections with

researchers across campus in such areas as bioinformatics, mathematics, molecular engineering, natural language processing, and statistics to mention just a few.

The Department of Computer Science (cs.uchicago.edu) is the hub of a large, diverse computing community of two hundred researchers focused on advancing foundations of computing and driving

its most advanced applications. Long distinguished in theoretical computer science and artificial intelligence, the Department is now building strong systems and machine learning groups. The larger community in these areas at the University of Chicago includes the Department of Statistics, the Computation Institute, the Toyota Technological Institute at Chicago (TTIC),

UC San Diego

Temporary Lecturer, Computer Science and Engineering

The UCSD Department of Computer Science and Engineering (CSE) is seeking one or more temporary lecturers to teach between one and three courses per quarter beginning Fall 2014. Content areas of interest include introductory programming/data structures, theory/algorithms, artificial intelligence, and digital design/computer architecture. It is expected that these courses would be taught at the undergraduate level. Appointments may be full time, part time, quarterly or annual, with the possibility of renewal.

The Jacobs School of Engineering and the Computer Science & Engineering Department at UC San Diego is committed to building an excellent, diverse and inclusive faculty, staff, and student body (<http://www.jacobsschool.ucsd.edu/diversity/>). Candidates with experience with or willingness to engage in activities that contribute to diversity and inclusion are especially encouraged to apply. Candidates must hold a master's degree in computer science or a related field, and must have demonstrated evidence of effective teaching.

We encourage candidates to send applications as soon as possible. Applications will be reviewed on an ongoing basis, and candidates will be contacted as teaching needs arise. We have needs for instructors in several classes in Fall 2014, and throughout the 2014-15 academic year, and we anticipate that these needs will continue into the following academic year.

Review of applications will begin August 15, 2014 and continue until positions are filled.

To apply, submit the following materials to <http://apptrkr.com/498224> provide a cover letter, curriculum vita, statement that provides evidence of effective teaching, and a separate statement describing your past experience in activities that promote diversity and inclusion and/or plans to make future contributions. For further information about contributions to diversity statements, see <http://facultyequity.ucsd.edu/Faculty-Applicant-C2D-Info.asp>

If there are any questions, please contact our Search Committee Chair, Christine Alvarado at alvarado@ucsd.edu.

UCSD is an equal opportunity and affirmative action employer with a strong institutional commitment to the achievement of excellence and diversity among its faculty and staff. Women and minority applicants, veterans and persons with disabilities are encouraged to apply (see <http://diversity.ucsd.edu>).

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age or protected veteran status.

Professional Opportunities

and the Mathematics and Computer Science Division of Argonne National Laboratory.

The Chicago metropolitan area provides a diverse and exciting environment. The local economy is vigorous, with international stature in banking, trade, commerce, manufacturing, and transportation, while the cultural scene includes diverse cultures, vibrant theater, world-renowned symphony, opera, jazz, and blues. The University is located in Hyde Park, a Chicago neighborhood on the Lake Michigan shore just a few minutes from downtown.

Applicants must have a doctoral degree in Computer Science or a related field such as Mathematics, Statistics, etc. Applicants are expected to have established an outstanding research program and will be expected to contribute to the department's undergraduate and graduate teaching programs.

Applications must be submitted through the University's Academic Jobs website.

To apply for the position of Associate Professor-Systems, go to: <http://tinyurl.com/pkzpcy5>

To apply for the position of Associate Professor-Theory, go to: <http://tinyurl.com/kwzb9zu>

To be considered as an applicant, the following materials are required:

- cover letter,
- curriculum vitae including a list of publications,
- statement describing past and current research accomplishments and outlining future research plans, and
- description of teaching philosophy, and
- a reference contact list consisting of three people

Review of complete applications will begin January 15, 2015 and will continue until all available positions are filled.

All qualified applicants will receive consideration for employment without regard

to race, color, religion, sex, national origin, age, protected veteran status or status as an individual with disability.

The University of Chicago is an **Affirmative Action / Equal Opportunity** / Disabled / Veterans Employer.

University of Chicago

Assistant Professor

The Department of Computer Science at the **University of Chicago** invites applications from exceptionally qualified candidates in the areas of (a) systems, and (b) theory of computing for faculty positions at the rank of **Assistant Professor**.

Systems is a broad, synergistic collection of research areas spanning systems and networking, programming languages and software engineering, software and hardware architecture, data-intensive computing and databases, graphics and visualization, security, systems biology, and a number of other areas. We encourage applicants working within our strategic focus of data-intensive computing, but also in all areas of systems.

The Theory of Computing ("Theory" for short) strives to understand the fundamental principles underlying computation and explores the power and limitations of efficient computation. While mathematical at its core, it also has strong connections with physics (quantum computing), machine learning, computer vision, natural language processing, network science, cryptography, bioinformatics, and economics, to name just a few areas. We encourage applications from researchers in core areas of Theory such as complexity theory and algorithms as well in any area with a significant Theory component.

The University of Chicago has the highest standards for scholarship and faculty quality,

is dedicated to fundamental research, and encourages collaboration across disciplines. We encourage connections with researchers across campus in such areas as bioinformatics, mathematics, molecular engineering, natural language processing, and statistics, to mention just a few.

The Department of Computer Science (cs.uchicago.edu) is the hub of a large, diverse computing community of two hundred researchers focused on advancing foundations of computing and driving its most advanced applications. Long distinguished in theoretical computer science and artificial intelligence, the Department is now building strong systems and machine learning groups. The larger community in these areas at the University of Chicago includes the Department of Statistics, the Computation Institute, the Toyota Technological Institute at Chicago (TTIC), and the Mathematics and Computer Science Division of Argonne National Laboratory.

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Applicants must have completed all requirements for the PhD at the time of appointment. The PhD should be in Computer Science or a related field such as Mathematics, or Statistics, etc.

Applications must be submitted through the University's Academic Jobs website.

To apply for the Assistant Professor - Systems, go to: <http://tinyurl.com/k3wgaqv>

To apply for the Assistant Professor - Theory, go to: <http://tinyurl.com/khyc74d>

Professional Opportunities

To be considered as an applicant, the following materials are required:

- cover letter,
- curriculum vitae including a list of publications,
- statement describing past and current research accomplishments and outlining future research plans, and
- description of teaching philosophy, and
- three reference letters, one of which must address the candidate's teaching ability.

Reference letter submission information will be provided during the application process.

Review of application materials will begin on January 15, 2015 and continue until all available positions are filled.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, protected veteran status or status as an individual with disability.

The University of Chicago is an **Affirmative Action / Equal Opportunity** / Disabled / Veterans Employer.

University of Chicago

Sr. Lecturer Position

The Department of Computer Science at the University of Chicago invites applications for the position of Sr. Lecturer. This position carries responsibility for teaching computer science courses and laboratories in the fall, winter and spring quarters and leading academic initiatives in the program.

This position involves advising undergraduates on their coursework and career paths. In collaboration with faculty, this senior lecturer will update, revise, and develop curriculum. In addition, this senior lecturer will train and evaluate graduate student lab instructors, as well as mentor junior faculty in pedagogy.

Applicants must have a PhD in Computer Science or a related field and have experience teaching Computer Science at an undergraduate level. The successful candidate will have exceptional competence in teaching and superior academic credentials.

The Chicago metropolitan area provides a diverse and exciting environment. The local economy is vigorous, with international stature in banking, trade, commerce, manufacturing, and transportation, while the cultural scene includes diverse cultures, vibrant theater, world-renowned symphony, opera, jazz and blues. The University is located in Hyde Park, a Chicago neighborhood on the Lake Michigan shore just a few minutes from downtown.

Applicants must apply on line at the University of Chicago Academic Careers website at <http://tinyurl.com/pf3sdtg>.

Applicants must upload a cover letter, curriculum vitae with a list of publications and a one page teaching statement. In addition, three reference letters that address the candidate's teaching qualifications will be required. Review of complete applications, including reference letters, will begin November 15, 2014, and continue until the position is filled.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, protected veteran status or status as an individual with disability. The University of Chicago is an **Affirmative Action / Equal Opportunity** / Disabled / Veterans Employer

University of Idaho College of Engineering

Assistant Professor – Computer Science

Open for Recruitment: August 15, 2014 open until filled; screening to begin September 15, 2014
Announcement #: F000062P
Location: Moscow, ID

The Department of Computer Science, College of Engineering at the University of Idaho invite applications for a full-time, 9-month/academic year, tenure-track faculty position at the assistant professor level, with specialization in big data analytics and data interoperability. This is a permanent tenure track position initially funded in part by the EPSCoR Managing Idaho's Landscapes for Ecosystem Services (MILES) (www.idahoecosystems.org). Areas of expertise of interest include data analytics for scientific applications in ecology, biology, and social sciences, exploiting data from disparate sources and heterogeneous formats. Responsibilities include undergraduate and graduate teaching, scholarship and research, and professional and university service.

Minimum Qualifications:

- An earned doctorate in computer science or a closely related field.
- Evidence of ability to teach college-level courses in Computer Science.
- Demonstrated success in research publications and presentations with emphasis in the management, analysis and/or use of large-scale or distributed databases.
- Demonstrated ability to work in a team to achieve project goals.
- Commitment to working collaboratively with a network of institutions.

To learn more and/or apply, please visit: <https://uidaho.peopleadmin.com/postings/5466>
EOE

Professional Opportunities

University of New Orleans

One Tenure-Track Position

The Computer Science Department invites applications for one tenure-track position at the rank of Assistant Professor to begin Spring 2015. The department has a particular interest in specialists in Software Engineering, Big Data and Cyber Security but will give serious consideration to excellent applicants from any of the computing fields.

Additional information on the position can be found at: <http://www.cs.uno.edu/news/position1652.php>

Washington State University Vancouver

Computer Science Faculty

COMPUTER SCIENCE FACULTY – Washington State University Vancouver invites applications for a full-time tenure-track position at the assistant professor level beginning 8/16/2015. Candidates are sought with expertise in **database systems** and **data management**. Additional expertise in **operating systems, cloud computing, Hadoop** and/or **data mining** are also desired.

Required qualifications: Ph.D. in Computer Science or Software Engineering by the employment start date and demonstrated ability to (1) develop a funded research program, (2) establish industrial collaborations, (3) teach undergraduate/graduate courses, and (4) contribute to our campus diversity goals (e.g. incorporate issues of diversity into mentoring, curriculum, service or research). **Preferred qualifications:** (1) already have published promising scholarly work in the field and (2) relevant industrial background.

Duties include: (1) teaching at undergraduate and graduate levels including the topics of database systems and management, and operating systems,

cloud computing, and/or data mining; (2) participation and documentation of distinguished scholarly activities including research, innovative teaching and laboratory development; (3) securing external funding for research programs; and (4) service to the department and university through committee work, recruitment, and interaction with industry.

WSU Vancouver serves about 3,000 graduate and undergraduate students and is **fifteen miles north of Portland, Oregon**. The rapidly growing School of Engineering and Computer Science (ENCS) equally values both research and teaching. WSU is Washington's land grant university with faculty and programs on four campuses. For more

information: <http://ecs.vancouver.wsu.edu>. WSU Vancouver is committed to building a culturally diverse educational environment.

To apply: Please visit www.wsujobs.com and search postings by location. Applications must include: (1) cover letter with a clear description of experience relevant to each of the required and preferred qualifications; (2) vita including a list of at least three references, and (3) A statement (**two page total**) of how candidate's research will expand/complement the current research in ENCS and a list of the existing ENCS courses the candidate can teach and any new courses the candidate proposes to develop. Application deadline is **November 28, 2014**.

University of Miami, Coral Gables, Florida



College of Engineering - Department of Electrical and Computer Engineer
Faculty Openings at All Professional Levels

The College of Engineering at the University of Miami (UM) invites applications for several tenure-track positions at all levels. The College is seeking candidates with a strong record of scholarship and external funding, a demonstrated excellence in teaching, and commitment to services. For senior-level appointments, a proven record of extramural funding support is required. The College includes five academic departments, 850 undergraduates, 250 graduate students, and 80 faculty, who have garnered national and international awards including election to the National Academy of Engineering. Our current recruitment is focused on the areas: (1) Cyber security, cloud computing, and applied cryptography with emphasis on systems; (2) Novel computer architectures, mobile and embedded systems; and (3) Robotics and (4) power electronics.

At UM, collaboration is a hallmark of the faculty's activities, including joint research with colleagues in the Miller School of Medicine, the Rosenstiel School of Marine and Atmospheric Science, the College of Arts and Sciences, the School of Education and the School of Nursing and Health Sciences.

A Ph.D. in engineering, science or a related discipline and one year work related experience is required prior to the appointment. Qualified applicants should mail (a) a letter of interest, (b) a resume and (c) at least three letters of reference to:

Dr. Shihab Asfour, Associate Dean for Academics
College of Engineering
University of Miami
1251 Memorial Drive, McArthur Engineering Bldg., Room 247
Coral Gables, FL 33146.
sasfour@miami.edu

The University of Miami offers competitive salaries and a comprehensive benefits package including medical and dental benefits, tuition remission, paid holidays and much more. The University of Miami is an Equal Opportunity/Affirmative Action Employer.

Professional Opportunities

Washington State University Is An Equal Opportunity/Affirmative Action Educator And Employer. Members of ethnic minorities, women, special disabled veterans, veterans of the Vietnam-era, recently separated veterans, and other protected veterans, persons of disability and/or persons age 40 and over are encouraged to apply. WSU employs only U.S. citizens and lawfully authorized non-U.S. citizens.

Wheaton College (IL)

Math/Computer Science Department

*Assistant or Associate Professor of
Computer Science*

Computer Science: Wheaton College is seeking applicants for an anticipated position in computer science at the assistant or associate professor rank. It is anticipated that the faculty member will have Ph.D. and teach in a variety of specialties. Special consideration will be given to candidates who can teach a project-based software development course and courses that support computational science across the College's Division of Natural Sciences. Excellent teaching and a research trajectory are expectations for faculty at Wheaton College, a highly selective Christian liberal arts College in the broad evangelical tradition whose faculty affirms a Statement of Faith and adhere to lifestyle expectations. Eligible candidates will be sent a formal application materials and instructions. Review of completed applications begins Nov. 1, 2014. Wheaton College is located in the western suburbs of Chicago and the College complies with federal and state guidelines for non-discrimination in employment. Women and minority candidates for this position are welcomed.

Nominations and application inquiries should be sent to Dr. Tom VanDrunen (Thomas.VanDrunen@wheaton.edu).

Yale-NUS College

Faculty Positions in Mathematics, Statistics, and Computer Science

Yale-NUS College, a recently established college of liberal arts and sciences founded by Yale University and the National University of Singapore (NUS), is seeking to hire one or more open rank, tenure-track or tenured faculty members in all fields of mathematics, statistics, and computer science. In particular, Yale-NUS College encourages applicants whose research and teaching cross traditional disciplinary boundaries. Full-time appointments are preferred, but joint appointments with other units of NUS may be possible.

Applicants should be active researchers with a commitment to creative and effective undergraduate teaching and mentoring within their specialties and in the Yale-NUS Common Curriculum. Candidates are encouraged to indicate ways in which they might supervise undergraduate research. For information about the curriculum, please see www.yale-nus.edu.sg/curriculum/common-curriculum/.

Salary, benefits, and leave policies will be competitive at an international level. Yale-NUS College is committed to supporting faculty research through start-up grants, research and travel allowances, institutional assistance with proposal preparation, and administration of external grant funding.



Postdoctoral Fellowships at the Institute for Quantum Computing

The Institute for Quantum Computing is inviting applications for postdoctoral positions in all aspects of quantum information processing, bridging areas from fundamental theory to physical implementations.

Quantum information science aims to develop transformational technologies that harness the power of quantum mechanics. The Institute for Quantum Computing (IQC) is a world-leading institute for research in quantum information at the University of Waterloo. IQC has 21 faculty members (growing to 33) whose research programs span the areas of Applied Mathematics, Chemistry, Combinatorics & Optimization, Computer Science, Electrical & Computer Engineering, and Physics & Astronomy. IQC members have the opportunity to interact with other research groups at the University, such as the Centre for Applied Cryptographic Research, and with the nearby Perimeter Institute for Theoretical Physics. New infrastructure including a state-of-the-art nanofabrication and metrology centre is supporting an expansion of our experimental research programs. IQC is based in the new Mike and Ophelia Lazaridis Quantum-Nano Centre, a state-of-the-art facility at the heart of the University of Waterloo campus, which provides unprecedented opportunities for research, collaboration and innovation.

We seek promising candidates to help advance the understanding of the foundations of quantum information, to develop new quantum applications and algorithms, and to implement these ideas in laboratory experiments and engineered systems. A PhD and proven ability, or strong potential, for excellence in research is required.

To learn more about IQC and for information on how to join as a postdoctoral fellow, please visit the *Available positions* link at iqc.uwaterloo.ca

The preferred deadline for receiving applications is November 1, 2014, but late applications will be considered until positions are filled.

All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. The University of Waterloo encourages applications from all qualified individuals, members of visible minorities, native peoples, and persons with disabilities.

Professional Opportunities

Review of applications will begin October 1, and continue until the positions are filled. Inquiries should be made to the Science Search Committee Chair, Jon Berrick, Professor of Science, yale-nus.college@yale.edu or see www.yale-nus.edu.sg.

With a highly international student body, the College values diversity and is committed to equality of opportunity. For additional information about Yale-NUS College, living in Singapore, and the faculty hiring process, including submission guidelines, and to apply, we invite you to our web site at: <http://www.yale-nus.edu.sg/careers/faculty/>

To access our application portal, please visit: <https://academicjobsonline.org/ajo/YaleNUS>