

Computing Research News

COMPUTING RESEARCH ASSOCIATION, CELEBRATING 40 YEARS OF SERVICE TO THE COMPUTING RESEARCH COMMUNITY

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Expanding the Pipeline: Hispanic Momentum in Computing

By Ann Q. Gates, Sarah Hug, and Heather Thiry

Hispanics have the highest growth rates among all groups in the United States, yet they remain considerably underrepresented in computing careers and in the numbers who obtain advanced degrees. Hispanics comprise only 13 percent of undergraduate students in all fields. Additionally, only seven percent of baccalaureates and less than one percent of doctorates in computer science in 2011 were granted to Hispanic U.S. citizens (National Center for Education Statistics (NCES), 2011). With computing careers growing at a faster than average rate in the United States (BLS, 2010) and internationally (Cervantes, 2003), it's important to increase the number of Hispanics who complete computing programs and who are qualified to obtain high-status, lucrative positions. The underrepresentation in computing, as well as science, technology, engineering, and mathematics (STEM), can be attributed to the small number of Hispanic faculty, combined with the lack of Hispanic role models and mentors. In 2004, seven Hispanic-Serving

Institutions (HSIs) formed the Computing Alliance of Hispanic-Serving Institutions (CAHSI) to consolidate their strengths, resources, and concerns with the aim of increasing the number of Hispanics who pursue and complete baccalaureate and advanced degrees in computing areas (Gates et al. 2011). The founding members and leads are as follows:

- California State University-Dominguez Hills (CSU-DH) – Mohsen Beheshti
- Florida International University (FIU) – Malek Adjouadi
- New Mexico State University (NMSU) – Enrico Pontelli
- Texas A&M University-Corpus Christi (TAMU-CC) – John Fernandez
- University of Houston Downtown (UHD) – Richard Aló and Ongard Sirisaengtaksin
- University of Puerto Rico Mayaguez (UPRM) – Nestor Dominguez and Nayda Santiago
- University of Texas at El Paso (UTEP) – Ann Gates

CAHSI now works with over fifteen universities and colleges.

Promoting Effective Practices via a Unified Effort

CAHSI plays a critical role in evaluating, documenting, and disseminating effective practices that support students at the critical stages in the academic pipeline: the transition from high school to college, from college to graduate school, and from graduate school to the professoriate. CAHSI initiatives and practices actively engage students in learning experiences, prepare students for STEM courses, create leadership roles, and develop skills required for research and cooperative work. Above all, CAHSI mainstreams mentoring and the building of structured, academic networks for students that prepare them for success in coursework from entry level through graduate school and, thereafter, into the STEM workforce.



Fig. 1: CAHSI group photo at SACNAS 2012



Fig. 2: UPRM CAHSI students who won a 2012 business plan competition.

Effective practices include:

- **CS0:** The CS0 effort focuses on adoption of pre-CS, a three-unit course that uses graphics and animation to engage and prepare students who have no prior experience in computing. Students are provided with an opportunity to learn the basics of programming concepts and to develop problem solving and systemic reasoning skills, while becoming familiar with a programming environment. Such CS0 courses can serve as a recruitment and motivational tool to attract students who are taking a computer science course as one of their science or general studies electives. CS0 motivates exploration of math and programming concepts (Amato et al., 2012).
- **Affinity Research Groups:** The Affinity Research Group Model (Villa et al., 2013; Gates et al., 2008) is a set of practices built on a cooperative team framework to support the creation and maintenance of dynamic and inclusive research groups in which students learn and apply the knowledge and skills required for research and cooperative work. In an ARG, members share a core purpose, and the research group is designed to emphasize the conscious

and explicit development of students' disciplinary knowledge, research abilities, and team skills. An ARG actively engages undergraduate and graduate students in the practices of effective research groups. ARG members have or are developing an affinity for a particular research topic and share common research goals, including goals for academic and professional development. An ARG deliberately designs activities aimed toward developing students' disciplinary knowledge, research abilities, and team skills.

- **Peer-Led-Team Learning:** A proven strategy for retention, PLTL provides an active learning experience for students and creates leadership roles for undergraduates. The PLTL model (www.ptl.org) engages teams of students in learning sciences, mathematics and other undergraduate disciplines guided by a peer leader. Students who have done well in this experience become guides, mentors and workshop peer leaders. For the peer leaders, the experience of working with faculty and guiding their peers through a difficult course is rewarding. The PLTL effort supports academic performance and retention in the gatekeeper courses. In a PLTL study, 81% of the students surveyed agreed

that interacting with the workshop leader increased their understanding of the subject, while 91% of the peer leaders surveyed stated that acting as a workshop leader increased their understanding of the subject, as well.

- **Mentor-Grad:** The Mentor-Grad program prepares undergraduates for graduate studies with the goal of completing a Ph.D. Parallel to Mentor-Grad is the FemProf initiative that focuses on the same goal aimed at undergraduate female students.
- **Fellow-Net:** CAHSI views the opportunity for student fellowships and scholarships as a powerful resource in attracting quality students into graduate studies toward a doctorate. As awardees of highly competitive fellowships and scholarships, students have the advantage to be introduced to research early in their career so that they can become valued graduates for faculty positions once they obtain their Ph.D. Our strategy is to make students aware early in their studies about the essential elements of a successful packet for a competitive fellowship and to ensure that students engage in activities that ultimately improve the prospects of a successful outcome.

NMSU has taken a lead in CAHSI in building effective educational outreach programs by aligning its K-12 initiatives with other programs, by sharing expertise, leveraging resources, and developing joint events. Some of these alignments include

- **National Girls Collaborative Project (NGCP)** – NMSU CAHSI representatives lead the New Mexico Chapter of the NGCP;
- **Computer Science Collaborative Project (CSCP)** – NMSU CAHSI representatives are part of the leadership team of the Engaging Latino/a Students branch of CSCP.

In addition, NMSU's DISSECT initiative (DIScovering Science through Computational Thinking) provides an educational infrastructure used to develop teams of graduate students, undergraduate students and K-12 teachers; the teams work on enhancing the structure and content of 8th to

12th grade science-related courses by embedding aspects of computational thinking and computer science in them. The objective is make the science teaching more engaging while at the same time infusing knowledge of computational thinking.

Building Momentum

The merits of CAHSI can be demonstrated by the increase in the completion rate of Hispanic students by ten percent since the year that CAHSI was officially formed. In 2011, 70% of CAHSI computing bachelor's degrees were awarded to Hispanics. In contrast, data from the National Center for Education Statistics indicates that only seven percent of bachelor's degrees in computer science in the United States were granted to Hispanics. Through CAHSI initiatives, the completion of Hispanic undergraduates from CAHSI departments increased from 244 students in 2006 to 267 students in 2011. *CAHSI graduates Hispanic students at nearly ten times the national rate of Hispanic baccalaureates in computing.*

CAHSI departments have consistently graduated high rates of female and Hispanic MS degree recipients. CAHSI has dramatically increased the number of women MS graduates from the time that it was first formed, demonstrating

an increase of 62% since 2006 (an increase from 26 in 2006 to 42 in 2011). CAHSI has also graduated high numbers of Hispanic master's degree recipients. For example, from 2006-2011, *nine percent of all Hispanic master's degrees in Computer Science/Engineering in the mainland United States were conferred by the six founding CAHSI mainland schools.* CAHSI consistently produces large numbers of Hispanic doctorates in Computer Science and Computer Engineering—quite significant, given the overall low rate of Hispanic computing Ph.D. degree attainment each year in the nation. In fact, *from 2006-2011, CAHSI mainland schools graduated 22% of the nation's Hispanic Ph.D.s in Computer Science.*

Establishing Collaborations

CAHSI has been listed in the Examples of Excelencia database as an effective national initiative that accelerates Hispanic student success at the baccalaureate level. As a member of the Excelencia in Action Network, CAHSI contributes to national efforts to advance the Hispanic national agenda. An example of Excelencia's efforts is a policy paper that proposes a new design and delivery of federal financial

"Given the speed of change, the growth of the Latino community and need for American skilled human capital, now more than ever federal financial aid policy recommendations must be in focus by using a Latino lens to reimagine the design and delivery of financial aid for post-traditional students."

Using a Latino Lens to Reimagine Aid Design and Delivery: Excelencia in Education

aid considering the strengths and needs of today's students (Santiago, 2013). The statement disaggregates the characteristics of post-traditional students to propose financial aid policy that aligns with current issues.

CAHSI has also developed a partnership with the Society for Advancement of Chicanos and Native Americans in Science (SACNAS), a community of scientists dedicated to involving and advancing those underrepresented groups in computing and other sciences by way of their national conference, year-round programs, policy advocacy work, and strategic initiatives. SACNAS serves over 30,000 members and involves more than 1,000 institutions, agencies, and programs across the country and in Puerto Rico. With a focus of expanding to include computing and engineering, the CAHSI-SACNAS partnership is critical because of its focus on preparing and advancing students in research careers and providing opportunities through its Leadership Institute to develop the next-generation leadership. SACNAS has also been a partner with CAHSI on policy and advocacy, e.g., commenting on the impact of NSF's broadening participation programs and the merit review criteria revisions and principles, which resulted in a quote that appeared in an article on the subject in Science. The SACNAS partnership has opened opportunities and is moving CAHSI toward sustaining and extending its impact.

Summary

CAHSI has built a pedagogical and intellectual community to support student success in its departments, and

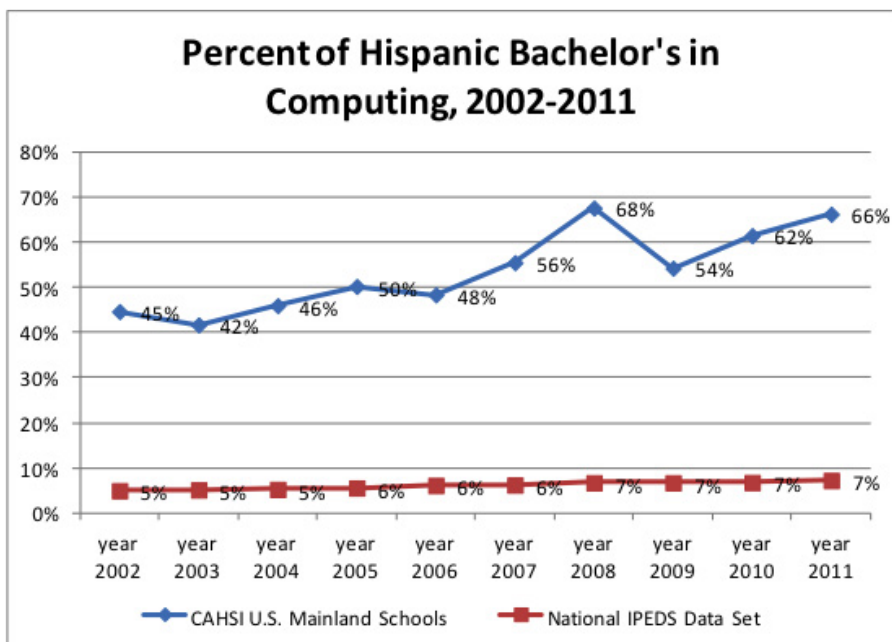


Fig. 3: Percent of Hispanic computing bachelor's degrees and national sample, 2002-2011.

it has created human infrastructure to support its initiatives by training faculty in member departments in CS0, PLTL, Fellow-Net, and ARG. Faculty members view participation in CAHSI as a way to collaborate with peers beyond their home institution. The alliance has begun to build community well beyond its founding members by disseminating its initiatives more broadly and developing key partnerships to advance its mission. CAHSI provides ongoing support, resources and materials through its website (<http://cahsi.org>) and interactions among CAHSI members. CAHSI is indeed building momentum and making a real difference.

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motivate exploration of foundational algebra concepts—while inadvertently scaffolding computational thinking and engineered design, Proc. ASEE.

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Computing Community Consortium: New Director Dr. Ann Drobnis

By: Ann Drobnis, Director of the Computing Community Consortium (CCC)

I am excited to take on my new role as Director of the Computing Community Consortium and lead the CCC as it emerges from [startup mode](#) into sustainability as the arm of CRA that works with the computing research community to create and enable visions for future computing research. I want to take this opportunity to introduce myself to the community as we embark on a new chapter for the CCC.

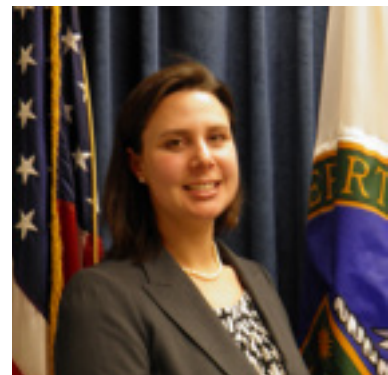
Before I can share my vision for how we will get there, let me tell you a bit about myself. Most recently, I was an [Albert Einstein Distinguished Educator Fellow](#) at the National Science Foundation working on education and workforce development issues for the CISE Directorate. I spent most of my time working on the CS10K Project, whose goal is to get academically rigorous computer science courses into 10,000 high schools by 2016. This

is a much needed effort to create the research and workforce pipeline that our field so desperately needs. Prior to my time at NSF, I taught high school computer science and math at Thomas Jefferson High School for Science and Technology. I have a passion for broadening participation in computing, as my doctoral research was focused on ways to bring more females into the field.

We are currently at a critical time in our nation's history where computing truly is impacting everything we do. More importantly, computing is only going to become more ubiquitous in all fields. It is my hope to advance CCC's mission by working both within and outside of the computing field to ensure that the role of computing is not simply an afterthought but instead is at the forefront of all interdisciplinary discussions, from health to security to sustainability, as these and

other fields look to determine their own future visions.

I look forward to meeting and working with all of you as we make CCC, CRA, and our field ever more vibrant.



Ann Drobnis
Director of the CCC

Center for Evaluating the Research Pipeline (CERP): Director's Welcome

Dr. Jane Stout joined CRA in March as the Director of the Center for the Evaluating the Research Pipeline (CERP).

In September 2012, the National Science Foundation awarded funding for CERP as part of a Broadening Participation in Computing grant to an Alliance of the Computing Research Association Committee on the Status of Women (CRA-W) and the Coalition to Diversify Computing (CDC). The goal of CERP is to be a national resource for programs that promote research careers and diversity in computing. The Center's flagship project is the development of the Data Buddies project, which is a database measuring issues of persistence among students and faculty in computing departments nationwide. In addition to its immediate value for program evaluation and benchmarking, this rich source of data will be analyzed in depth for what it can tell the computing community about factors that help thicken the research pipeline and underrepresented minorities and women (URM-Ws) in graduate programs and research careers.

On March 1, 2013, Dr. Jane Stout was hired to be the Director of CERP. She will promote CERP's unique evaluative capabilities and lead formal evaluation of programs aimed at increasing URM-Ws in computing that are designed and run by the CRA-W and CDC, and funded by external grants and sponsors.

Goals for CERP

Dr. Stout's immediate goal is to work with CRA's senior statistician, Delicia Mapp, to analyze data that have already been collected. There are many exciting research questions that can be answered with current and incoming

data, such as: Are the CRA-W and CDC's mentorship programs effective in retaining underrepresented students in computing? If so, what are the underlying mechanisms behind the benefits of our programs?

In addition, Stout expressed long-term goals: "Our nation very much needs to increase the number of talented and motivated workers in computing fields, and to make sure that workforce is diverse. With a diversity of experiences comes a diversity of perspectives, which fosters creativity and innovation. My team and I view our evaluation endeavors at CERP as well situated to promote a more diverse computing workforce. Through examining 'what works' in CRA-W and CDC's programs, workshops and lecture series, we will be better able to advise on how best to structure current and future programs aimed at retaining women and individuals from underrepresented minority groups in computing." "Another long term goal is to make clear to constituents in other science, technology, engineering and mathematics (STEM) academic fields and organizations that the Data Buddies project can be a valuable resource in understanding the type of programs that best promote students' engagement and retention in their fields—particularly students from historically underrepresented groups."

About the Director

Jane Stout obtained her Ph.D. in social psychology in 2011 at The University of Massachusetts Amherst with a

concentration in quantitative methods. There, she focused on understanding the many reasons why women pursue certain STEM fields less frequently than men. She continued this program of research as a Postdoctoral Research Associate for two years at The University of Colorado Boulder before becoming the Director of CERP at the CRA.

She is eager to apply her methodological and statistical training to study the efficacy of the many valuable mentorship programs offered by the CRA-W and CDC and other intervention programs offered nationwide



*Jane Stout
Director of the CERP*

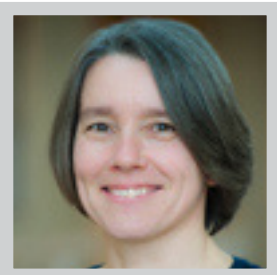


2013 CRA Board Election Results

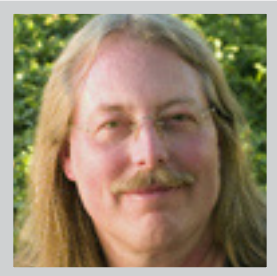
CRA members have elected three new members to its Board of Directors: Tracy Camp, Anne Condon, and Chris Johnson. They will begin three-year terms on July 1, 2013.



Tracy Camp is a Full Professor of Computer Science in the Department of Electrical Engineering and Computer Science at the Colorado School of Mines. She is the Founder and Director of the Toilers (<http://toilers.mines.edu>), an active ad hoc networks research group. Her current research interests include the credibility of ad hoc network simulation studies and the use of wireless sensor networks in geosystems. Dr. Camp has received over 20 grants from the National Science Foundation, including a prestigious NSF CAREER award. In total, her projects have received over \$20 million dollars in external funding. This funding has produced 12 software packages that have been requested from (and shared with) more than 3000 researchers in 86 countries (as of October 2012). Dr. Camp has published over 80 refereed articles and 12 invited articles, and these articles have been cited almost 4,000 times (per Microsoft Academic Search) and over 7,000 times (per Google Scholar) as of December 2012.



Dr. Anne Condon is Professor and Head of the Department of Computer Science at U. British Columbia. She received her Bachelor's degree (1982) from University College Cork, Ireland, and her Ph.D. (1987) at the University of Washington. Dr. Condon's research interests are in biomolecular computation and computational prediction of RNA and DNA structure and folding pathways, with applications to design of novel structures and to gene synthesis. She and her collaborators have developed algorithms and thermodynamic models that have improved the efficiency and accuracy of state-of-the-art methods for nucleic acid secondary structure prediction. More broadly, her research contributions span computational complexity theory, hardware verification, bioinformatics biomolecular computation, and combinatorial auctions.



Chris Johnson is the founding director the Scientific Computing and Imaging (SCI) Institute at the University of Utah where he is a Distinguished Professor of Computer Science and holds faculty appointments in the Departments of Physics and Bioengineering. His research interests are in the areas of scientific computing and scientific visualization. Dr. Johnson founded the SCI research group in 1992, which has since grown to become the SCI Institute employing over 200 faculty, staff and students. Professor Johnson serves on several international journal editorial boards, as well as on advisory boards to several national research centers. Professor Johnson has received several awards, including the the NSF Presidential Faculty Fellow (PFF) award from President Clinton in 1995 and the Governor's Medal for Science and Technology from Governor Michael Leavitt in 1999. He is a Fellow of the American Institute for Medical and Biological Engineering, a Fellow of the American Association for the Advancement of Science, and in 2009 he was elected a Fellow of

the Society for Industrial and Applied Mathematics (SIAM) and received the Utah Cyber Pioneer Award. In 2010 Professor Johnson received the Rosenblatt Award from the University of Utah and the IEEE Visualization Career Award. In 2012, Professor Johnson received the IEEE IPDPS Charles Babbage Award.

Three current board members - Ron Brachman (Yahoo! Labs), Laura Haas (IBM Research) and Fred B. Schneider (Cornell University) were re-elected to the CRA Board for the July 1, 2013, through June 30, 2016 term. New CRA Board Officers have also been elected for two-year terms beginning July 1, 2013. J Strother Moore has been elected Chair, and Susan Davidson, Secretary. The board re-elected current officers Laura Haas, Vice-Chair, and Ron Brachman, Treasurer. Retiring from the board as of June 30, 2013, are Ed Fox, Mary Jean Harrold and Martha Pollack. CRA thanks them all for contributions during their service on the board.

CRA BOARD MEMBERS

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David Bader, Georgia Institute of Technology

Corinna Cortes, Google Inc.

Mary Czerwinski, Microsoft Research

Susan Davidson, University of Pennsylvania

Mary Fernández, AT&T Labs Research

Jeanne Ferrante, UC San Diego

Lance Fortnow, Georgia Institute of Technology

Ed Fox, Virginia Tech

Jean-Luc Gaudiot, University of California, Irvine

Brent Hailpern, IBM Research – Almaden

Mary Jean Harrold, Georgia Institute of Technology

Julia Hirschberg, Columbia University

H.V. Jagadish, University of Michigan

Norm Jouppi, Hewlett-Packard

Henry Kautz, University of Rochester

Jim Kurose, University of Massachusetts

Margaret Martonosi, Princeton University

Kathryn S. McKinley, Microsoft Research

P. Takis Metaxas, Wellesley College

J Moore, The University of Texas at Austin

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Tamer Özsu, University of Waterloo

Fred Schneider, Cornell University

Rob Schreiber, Hewlett-Packard

Margo Seltzer, Harvard

Valerie Taylor, Texas A&M University

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Eric Grimson, Chair, Massachusetts Institute of Technology

Laura Haas, Vice-Chair, IBM Almaden Research Center

Martha Pollack, Secretary, University of Michigan

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Sandra Corbett, Manager of Administrative Support

Ann Drobnis, Director, Computing Community Consortium

Peter Harsha, Director of Government Affairs

Kenneth Hines, Program Associate, Computing Community Consortium

Sabrina Jacob, Administrator

Delicia C. Mapp, Sr. Statistician

Melissa Norr, Policy Analyst

Erik Russell, Director of Programs

Shar Steed, Communications Specialist

Jane Stout, Director of the Center for the Evaluating the Research Pipeline (CERP)

Maria Zhuravleva, Web Designer and IT Specialist

Professional Opportunities

Allegheny College

Department of Computer Science Tenure-track Assistant Professor

The Department of Computer Science invites applications for a tenure-track position beginning September 2013. Applicants with interdisciplinary interests that combine computer science with art, biology, economics, or environmental science are particularly encouraged to apply; candidates with interests in architecture, graphics, mobile computing, security, or other areas of computer science are also invited. Qualifications include a Ph.D. in computer science or a related field.

Teaching load is 6 courses per year, with a laboratory course in computer science counting as 1.5 courses. All faculty must participate in teaching college-wide first-year/sophomore seminars that emphasize writing and speaking. Beyond providing evidence of the ability to effectively teach and advise undergraduates, applicants must demonstrate a commitment to ongoing scholarship and professional development. Salary for this position is competitive and start-up funds are available. Allegheny College is a highly selective private liberal arts college with a dedicated faculty of teacher-scholars.

More information about the Department of Computer Science's students, faculty, staff, and facilities is available at <http://www.cs.allegheny.edu>.

Send letter of application, curriculum vitae, statement of teaching and research interests, applicable transcripts, and arrange to have three letters sent from references, at least one of whom can comment on teaching, to: Gregory M. Kapfhammer, Associate Professor and Chair, care of Pauline Lanzine, planzine@allegheny.edu. Review of applications will begin immediately.

Allegheny College is an Equal Opportunity Employer, with a strong institutional commitment to develop a diverse faculty and staff. Women and members of other under-represented groups are encouraged to apply.

Bowdoin College

Department of Computer Science Visiting Assistant Professor

The Department of Computer Science at Bowdoin College invites applications for a one-year position as Visiting Assistant Professor starting Fall 2013, with the possibility of a one-year renewal. Preference will be given to applicants with proven teaching excellence and whose research interests lie in systems and software. In addition, Bowdoin is building an environment in which students and faculty from across all disciplines can employ computational approaches to enrich their work; we welcome applications from candidates who can contribute to this effort. The teaching load is two courses per semester. Ph.D. preferred, advanced ABDs

considered.

Bowdoin accepts only electronic submissions. Please visit <https://careers.bowdoin.edu> to submit a cover letter, a curriculum vitae, a statement of research plans, a statement on teaching philosophy, and the names of three references who have agreed to provide letters of recommendation.

Review of applications will begin March 25, 2013, and will continue until the position is filled.

A highly selective liberal arts college on the Maine coast with a diverse student body made up of 30% students of color, 4% International students and approximately 15% first generation college students, Bowdoin College is committed to equality and is an equal opportunity employer. We encourage inquiries from candidates who will enrich and contribute to the cultural and ethnic diversity of our college. Bowdoin College does not discriminate on the basis of age, race, creed, color, religion, marital status, gender identity and/or expression, sexual orientation, veteran status, national origin, or disability status in employment, or in our education programs.

For further information about the college please visit our website: <http://www.bowdoin.edu>.

Carnegie Mellon University

Software Engineering Institute Senior Software Assurance Engineer

This position is located in Arlington, Virginia. The mission of the SEI Interagency Acquisition Program is to assist government organizations in successfully addressing the complex technical and policy software assurance (SWA) challenges of acquiring and sustaining software-reliant systems that enable mission- and business-critical process outcomes. The IAP portfolio spans the intelligence community, federal and state agencies, OSD, and defense agencies. This position will report directly to the Associate Director, IAP and will work collaboratively with the SEI Chief Technology Officer to orchestrate a range of SWA technical assistance to IAP clients to include SWA bodies of knowledge, practices, tools, and research. The Senior SWA Engineer will be responsible for representing and transitioning cutting-edge SWA developments and practices to IAP clients with mission needs at the individual program level, in the systems-of-systems context, and at the enterprise level throughout the life cycle. In addition to technical depth, this position requires the successful applicant have the demonstrated interpersonal, representation, and communications experience to interact with senior government agency executives, staffs, and working group activities. The specific responsibilities of this position include: maintain currency in evolving government SWA policies and guidance, participate in development of DoD (CIO and USD (AT&L)) and other agency SWA strategy, policy, and guidance; create approaches and frameworks for the continuous

identification and assessment of SWA practices, methods, and tools appropriate to client needs; infuse leading-edge SWA practices into SEI bodies of work; identify critical SWA research needs and propose research projects to advance solutions to current and emerging client problems; work in a collaborative environment on teams to provide technical assistance at all levels; the ability to plan and conduct analyses, synthesize findings and recommendations, and effectively communicate verbally, in written reports, and presentations appropriate for the executive level.

Qualifications

Minimum:

- Education: MS degree with eight (8) years' experience in software engineering, computer science, information systems or an equivalent combination of training and experience.
- Experience: Ten plus (10+) years of progressive responsibility in technology, development, or research based organizations with hands-on experience in addressing SWA issues associated with software engineering involving complex systems such as enterprise information systems and networks, business systems, C4ISR, and major weapon systems. Five (5) years' of experience in complex software and systems development within government or industry settings.
- Skills: Experience in planning and leading SWA projects and staff in major programs across the life cycle of development, test and evaluation, deployment, and life cycle sustainment; knowledge and use of SWA tools and methods at the program and enterprise level for custom and COTS products; ability to analyze customer problems, determine needs, and recommend a course of action to address SWA issues; quickly learn and adapt to new technologies, platforms, and environments; work effectively with team members, customers, and collaborators in industry and DoD; demonstrated written and oral communication skills.
- Physical Mobility: The ability and willingness to travel is required.
- Environmental Conditions: Usual office setting, including extended work at a computer screen.
- Mental: Ability to meet deadlines and function productively as a team member.
- Other: US citizenship required; successful candidate must be able to pass background investigation for a DoD security clearance.

Preferred:

- Education: PhD with five (5) years' experience preferred.
- Other: Knowledge of SEI bodies of knowledge and experience.

To apply: Please visit www.sei.cmu.edu/careers - position #9735

Professional Opportunities

Cal Poly, San Luis Obispo

Electrical Engineering Assistant or Associate Professor in Computer Engineering

ELECTRICAL & COMPUTER ENGINEERING
- Tenure track faculty position in Electrical and Computer Engineering at Cal Poly, San Luis Obispo, California, beginning September 2013.

For details, qualifications, and application instructions (online application required), visit WWW.CALPOLYJOBS.ORG and apply to requisition #102633. Application review is ongoing.

EEO

Case Western Reserve University

Engineering Strategic Hiring Initiative 2013

Case Western Reserve University's Engineering Strategic Hiring Initiative continues in 2013 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, Multi Scale Mechanical Modeling, and Smart Grid.

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).

Launched in 2010, 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.

FACULTY POSITION: DIRECTOR OF GEOMETRIC MODELING AND SCIENTIFIC VISUALIZATION CENTER

The Geometric Modeling and Scientific Visualization Center (GMSV) (<http://gmsv.kaust.edu.sa>) at King Abdullah University of Science and Technology (KAUST) is seeking a leading scientist in visual computing as Director. The Center is part of the Computer, Electrical, and Mathematical Sciences and Engineering (CEMSE) Division, and the associated faculty appointment will be for Full Professor either in Computer Science or Applied Mathematics.

The Director manages an interdisciplinary center with a multi-million dollar annual portfolio whose members have dedicated extraordinary research facilities for simulation, visualization and immersive environments, generous research space, and stable funding to support the Director, faculty, postdocs, and graduate students. In terms of facilities, the center has prime access to the CORNEA Visualization center and the university has a related supercomputer (Shaheen). The successful candidate will be an internationally recognized leader in visual computing. The center has a research portfolio in areas such as computer graphics, computational design, computer vision, image processing, data visualization, data analysis and understanding, and high-performance scientific visualization. With currently 65 members, it is still undergoing significant growth and has exceptional opportunities through multi-disciplinary interactions with other KAUST research thrusts in extreme scale computing, computational biology, materials science, marine sciences, water desalination, and solar energy, to name a few.

All candidates should have the ability to pursue a high impact research program and have a commitment to teaching at the graduate level. Applicants should apply at <http://apptrkr.com/326050>. Applications received by March 31, 2013 will receive full consideration and the position will remain open until filled.

King Abdullah University of Science and Technology (KAUST) is an international, graduate research university dedicated to advancing science and technology through interdisciplinary research, education, and innovation. Located on the shores of the Red Sea in Saudi Arabia, KAUST offers superb research facilities, and internationally competitive salaries. The university attracts top international faculty, scientists, engineers, and students to conduct fundamental and goal-oriented research to address the world's pressing scientific and technological challenges related to the sustainability of water, food, energy, and the environment.



جامعة الملك عبد الله
للعلوم والتقنية
King Abdullah University of
Science and Technology



Professional Opportunities

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.

Jacksonville University

Division of Computing Science

Visiting Assistant Professor of Computing Science

Jacksonville University invites applications for a Visiting Assistant Professor of Computing Sciences, beginning August, 2013. Ph.D. in Computer Science or closely related field is required. Specialization is open, with preference for candidates working in web application development or applied areas with interdisciplinary focus. Teaching responsibilities will include courses throughout the undergraduate computing sciences curriculum including the university service course.

Candidates should provide evidence of commitment to excellent teaching and scholarly potential.

To ensure full consideration, candidates are encouraged to apply before March 31, 2013.

Send C.V., JU faculty application (<http://ow.ly/f8rze>), teaching and research statement, transcripts (originals required if hired), and three letters of support to:

Chair, CS Search Committee
Department of Computing Science
Jacksonville University
2800 University Blvd N
Jacksonville, FL 32211
cssearch@ju.edu

Application screening will begin immediately and will continue until position is filled.

Lake Forest College

Mathematics and Computer Science

Assistant Professor

The Department of Mathematics and Computer Science invites applications for a one-year position as a Visiting Assistant Professor, with possible conversion to tenure-track. The position, beginning in the Fall 2013 semester, requires a Ph.D. in computer science or evidence that all Ph.D. requirements will be completed by Fall 2013. Successful applicants will be able to teach computer science courses across our curriculum – introductory courses and upper-level electives – and will exhibit potential for a sustained research career and a willingness to foster undergraduate research.

A highly selective liberal arts college located on Chicago's North Shore, Lake Forest College enrolls approximately 1,500 students from over 47 states and 79 countries. At Lake Forest College, the quality of a faculty member's teaching is the most important criterion for evaluation. The College also expects peer-reviewed publications and active participation in the College community. Lake Forest College embraces diversity and encourages applications from women and other members of historically underrepresented groups.

Applications should include a letter of application and CV that includes documentation of teaching experience. Applicants must also arrange to have three letters of reference sent separately. Electronic submissions to cssearch@lakeforest.edu are preferred.

Applications may also be mailed to:
Prof. Craig Knuckles, Chair
Department of Mathematics & Computer Science,
Lake Forest College
555 N. Sheridan Road
Lake Forest, IL 60045

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

Lyric Labs | Analog Devices, Inc.

Research Scientist

What is the GPU of machine learning? Can we redefine how processors work to make statistical inference more efficient? How can we democratize machine learning and make it available to 1000x more people?

These are just some of the problems scientists at Lyric Labs are working on. Lyric Labs, a division of Analog Devices, 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 core machine learning, probabilistic programming, and hardware accelerated Bayesian inference with applications in audio processing, communications infrastructure processing, timeseries modeling, vital signs monitoring and low-power semantic signal processing.

Our research scientists define and execute long-term research projects, develop innovative algorithms and hardware solutions, and work with Analog Devices to incorporate their technology into real-world products that impact millions of people. They stay current on state-of-the-art algorithms, technologies and theories, and maintain world-class academic credentials through publications, presentations, external collaborations, and service to the research community.

Are you interested in these activities too? Tell us who you are! We would like to consider you for upcoming openings in our Cambridge, MA office!

Ideal individuals would have:

* MS or PhD in Computer Science or related area

* Excellent knowledge of machine learning

* "DIY hacker" orientation - takes things apart and puts them back together again

* Desire to work in generous and collegial environment

* Expertise in probabilistic inference and probabilistic modeling. Ideal candidates are proficient with multiple techniques for inferences and styles of modeling

* Expertise in building parallel and distributed architectures for machine learning, and/or a deep understanding of processors and processor architectures

* First class expertise in a machine learning sub-domain, such as distributed machine learning, social network analysis, semi-supervised learning, multi-task learning, deep learning, graphical models, structured learning, learning with graphs, etc.

* Demonstrated ability to apply machine learning techniques to real problems

* Excellent research track record, including top-tier peer-reviewed conferences and journals, participation on program committees, editorial boards, and advisory panels

If you're interested, please send your contact information and qualifications/resumes to Marie.Spindler@Analog.com with "Theory Community" in the subject line. Please circulate to any relevant contact.

NEC Laboratories America, Inc.

Research Staff Members — Large-Scale Complex Systems

NEC Laboratories America, Inc. conducts research in support of NEC's US and global businesses. Our research program covers many areas, reflecting the breadth of NEC business, and maintains a balanced mix of fundamental and more applied research. We focus on topics with strong innovations in the US and place emphasis on developing deep competence in selective areas that are important to NEC business and which are ripe for technical breakthrough.

The Autonomic Management group conducts research on all aspects of large-scale complex systems. We have ongoing projects in cloud and data center networking, distributed system debugging, software-defined networking, computer security, and big data analytics. Our group brings together researchers with expertise in operating systems, networking, distributed systems, security, modeling, statistics, and data mining. We strongly believe in both publishing our research as well as building technologies that solve real world problems and ultimately help business needs. Many of our research results have been transferred into award-winning NEC products. Currently, the group is seeking research staff members to work in the following areas:

Distributed Systems

The ideal candidates will have expertise in the design,

Professional Opportunities

implementation, experimentation, deployment, and analysis of large-scale middleware, distributed systems, and operating systems. A PhD in CS/CE or similar degree is required. Qualifications include, but are not limited to, good math skills and a strong publication record in the following areas:

- Performance, reliability, and dependability
- Data centers and cloud computing
- Debugging and diagnosis of distributed systems
- Autonomic configuration, management, and troubleshooting of networked systems
- Probabilistic approaches and data mining techniques for distributed systems

<https://neclabs.hua.hrsmart.com/hrsmart/ats/Posting/view/1123>

Computer Networking

The ideal candidates will have a research focus in system networking and networked systems. A PhD in CS or related area is required. Qualifications include a strong research record demonstrating expertise in the design, implementation, and analysis of networked systems, including, but not limited to, the following areas:

- Data center and enterprise networking
- Software-defined networks (SDN)
- Network modeling and measurement
- Network analytics and management

<https://neclabs.hua.hrsmart.com/hrsmart/ats/Posting/view/1124>

For more information about NEC Labs, access <http://www.nec-labs.com/>. Submit your CV and research statement through our career center at the links noted with each position.

EOE/AA

NEC Laboratories America, Inc

Research Staff Member — Big Data Analytics

NEC Laboratories America, Inc. is a vibrant industrial research center, conducting research in support of NEC's U.S. and global businesses. Our research program covers many areas, reflecting the breadth of NEC business, and maintains a balanced mix of fundamental and applied research.

The Autonomic Management group at NEC Labs America conducts research in the area of large-scale complex systems. We are creating innovative analytics from big data to simplify and automate the management of physical systems (e.g., automobiles, power plants, smart city, etc.), as well as large-scale IT systems and services. Our group has several ongoing projects on big data analytics including massive time series modeling, discrete events mining, and large graph mining, etc. Our researchers have expertise in statistics, data

mining, signal processing, pattern recognition and distributed systems. We strongly believe in publishing our research results as well as building technologies that can solve real world problems and ultimately support our business needs. Many of our research results have been transferred into award-winning NEC products.

Currently, the group is seeking research staff members to work in the area of data analytics and mining for complex systems. The ideal candidate must have expertise in data mining and statistical learning, and is expected to analyze massive amount of monitoring data from complex physical and IT systems to model and analyze their complex behaviors. He/she must have a PhD in CS/CE with a strong publication record in the following areas:

- Data mining and statistical learning
- Time series analysis and prediction
- Big data analytics and algorithms
- Signal processing and information theory

For more information about NEC labs, access <http://www.nec-labs.com/>, and submit your CV and research statement through our career center at <https://neclabs.hua.hrsmart.com/hrsmart/ats/Posting/view/1125>.

EOE/AA

Oberlin College

Computer Science Visiting Assistant Professor

The Department of Computer Science at Oberlin College invites applications for a full-time, non-continuing faculty position for the 2013-14 academic year. The area within Computer Science is open.

For information see <http://new.oberlin.edu/home/jobs/>. For full consideration please apply by March 8, 2013.

Oberlin College is an Equal Opportunity/Affirmative Action Employer with a strong commitment to the development of a climate that supports equality of opportunity and respect of differences based on gender, ethnicity, disability, sexual orientation, and gender identity and expression. We are particularly interested in receiving applications from individuals who would contribute to the diversity of our faculty.

The Ohio State University-Columbus, OH

Department of Computer Science and Engineering Lecturer/Senior Lecturer – Computer Science and Engineering

The Ohio State University, one of the nation's leading public universities, is seeking several highly skilled Lecturers and Senior Lecturers to support the teaching mission of the Department of Computer Science and Engineering. Lecturers and Senior Lecturers are responsible for teaching introductory and advanced undergraduate courses in the areas of software

engineering, programming languages, architecture, information security, operating systems, theory, algorithms, graphics, artificial intelligence and other areas of computing, based on student interest and enrollment demands. Work requirements may include day and/or evening courses. Part-time and full-time options are available based on demand. Temporary positions may be offered based on each semester's enrollment demands. Appointment level and salary will depend on the candidate's qualifications and experience. Although these are non-tenure-track positions, well-qualified individuals will be offered annual renewable contracts. For full details, please see: <http://www.cse.ohio-state.edu/departments/positions.shtml>

Application Instructions: Applicants should submit a letter of application, teaching statement and philosophy (to include types of classes you can teach), and a current CV, and arrange for three letters of reference to be submitted electronically to Dr. Neelam Soundarajan c/o Kathryn Reeves at (reeves@cse.ohio-state.edu).

To build a diverse workforce Ohio State encourages applications from individuals with disabilities, veterans and women. EEO/AA employer

Polytechnic Institute of NYU

Associate Department Head and Industry Professor

The Computer Science and Engineering Department of Polytechnic Institute of NYU invites applications for an Industry Faculty position, at either the assistant, associate, or full levels; depending on experience. In addition to being an Industry Professor, the candidate will also serve as Associate Department Head. In this position, the candidate will have both important teaching and administrative responsibilities. Industry Professors are multi-year non-tenured positions. Salary is competitive and commensurate with experience and expertise.

As Associate Department Head, the candidate will assist the Department Head in the administration and management of the Department. Possible responsibilities may include core staffing, resolution of student advising issues, and organizing and participating in departmental events such as open houses and freshman orientation.

The position requires a PhD in computer science or a highly related background, with several years of teaching experience in a US university. Outstanding teaching skills are desired, with expertise in operating systems, distributed systems, and/or computer security. Management experience, either in an academic or industrial context, is also required.

Polytechnic Institute of NYU was formerly Brooklyn Polytechnic, but has recently merged with NYU. Polytechnic will soon become the engineering school of NYU. The Computer Science and Engineering Department has about 23 faculty including both

Professional Opportunities

tenure-track faculty and industrial professors. It has a very active PhD and research program, with about \$4 million in research expenditures each year. It has about 400 master students and about 200 undergraduate students. The Department's research strengths include cyber security, big data and visualization, game engineering, and computer science theory.

Applicants should send their curriculum vitae, statement of research and teaching interests, and the names and addresses of three referees, as a PDF attachment, to cssearch@poly.edu. Please indicate which job you are applying for.

Polytechnic is an Equal Opportunity Employer.

Polytechnic Institute of NYU

Industry Professor

The Computer Science and Engineering Department of Polytechnic Institute of NYU invites applications for an Industry Faculty position, at either the assistant, associate, or full levels, depending on experience. An industry Professor's primary role is teaching, although the position may also entail some administrative work and community building. The successful candidate will teach both at the undergraduate and master's levels. Industry Professors are multi-year non-tenured positions. Salary is competitive and commensurate with experience and expertise.

The position requires a PhD in computer science or a highly related background, with several years of teaching experience in a US university. Outstanding teaching skills are desired, with expertise in operating systems, distributed systems, and/or computer security. Industry experience is also desirable but not mandatory.

Polytechnic Institute of NYU was formerly Brooklyn Polytechnic, but has recently merged with NYU. Polytechnic will soon become the engineering school of NYU. The Computer Science and Engineering Department has about 23 faculty, including both tenure-track faculty and industrial professors. It has a very active PhD and research program, with about \$4 million in research expenditures each year. It has about 400 master students and about 200 undergraduate students. The Department's research strengths include cyber security, big data and visualization, game engineering, and computer science theory.

Applicants should send their curriculum vitae, statement of research and teaching interests, and the names and addresses of three referees, as a PDF attachment, to cssearch@poly.edu. Please indicate which job you are applying for.

Polytechnic is an Equal Opportunity Employer.

Polytechnic Institute of New York University

Computer Science and Engineering Department Faculty Position

The Computer Science and Engineering Department

of the Polytechnic Institute of New York University (NYU Poly) invites applications for a faculty position with research focus in one or more of the following broadly interpreted areas: visualization, data analysis, visual analytics, and large-scale data management. We welcome applications at all levels with an exceptional record in research, teaching, and professional accomplishments. The rank of initial appointment will be commensurate with experience and accomplishments.

The successful candidate will have excellent opportunities to initiate interdisciplinary research and educational collaborations with the diverse institutes and departments within NYU, including NYU Courant, NYU Stern, and the NYU Medical and Dental schools, and to play a major role in establishing new programs in Bioengineering and Data Science.

Our department has existing research strengths in several relevant areas, including data management, visualization, cyber security, web and text search, content distribution and distributed systems, machine learning, and HCI. We have just moved into a new

building that significantly expands our research space, with a generous allocation for a state-of-the-art visualization lab. The newly established Game innovation Lab provides excellent facilities for game and HCI related research and education, and nicely complements the visualization facilities for a unique environment.

New York City brings unique opportunities for visualization and data science researchers, including a large number of established companies with large-data needs such as banks, media companies, and data integrators, as well as a rich environment of technology startups. It is also a hotbed for research in urban technologies, much of which can benefit from advanced data analysis and visualization.

Applicants should send their curriculum vitae, statement of research and teaching interests, and the names and addresses of three referees, as a PDF attachment, to cssearch@poly.edu.

Polytechnic is an Equal Opportunity Employer.



ASSISTANT OR ASSOCIATE PROFESSOR – COMPUTING SCIENCE

The Department of Computing Science at the University of Alberta invites applications for a full-time tenure-track faculty position in theoretical computing science at the level of Assistant or Associate Professor. Areas of interest include (but are not limited to) algorithmics, approximation algorithms, algorithmic discrete mathematics, computational complexity and combinatorial optimization. Applicants should be acknowledged by their peers as having the potential to lead in their research field and be committed to teaching. The successful candidate will be considered for nomination as a Canada Research Chair at the Tier II level.

Qualified candidates must hold a PhD at the time of appointment. Salary will be commensurate with experience.

The University of Alberta, one of Canada's largest research universities is situated in Edmonton, a metropolitan area of over one million people with a vibrant research community and an excellent standard of living. The Department of Computing Science at the University of Alberta is widely recognized as a leading CS department, both within Canada and worldwide.

The application should include a current curriculum vitae, a statement of current research interests and plans for future research, as well as evidence of teaching effectiveness. The application should also include a document outlining the candidate's board plans for the direction of the Canada Research Chair, and potential collaborations both at The University of Alberta and elsewhere. Applicants must arrange for at least three, and up to five, confidential letters of reference to be sent to the Chair. All documents should be sent to:

Mike MacGregor, Chair, Department of Computing Science, University of Alberta, Edmonton, Alberta, Canada T6G 2E8 Email: mike.macgregor@ualberta.ca

Application review will begin May 1, 2013; however, the competition will remain open until suitable candidates are found. The start date for this position is July 1, 2013, or as soon as possible thereafter.

For more information about the Department, the Faculty of Science, and The University of Alberta, please see the Department's web page at www.cs.ualberta.ca

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. The University of Alberta hires on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including, persons with disabilities, members of visible minorities, and Aboriginal persons.

careers.ualberta.ca

Professional Opportunities

Purdue University

Faculty Openings in "Big Data"

Purdue University has identified "Big Data" as a major thrust for inter-disciplinary research and education. Several faculty positions are available in enabling technologies as well as in domain sciences that deal with the use and management of digital data. The new hires will join a strong faculty group engaged in this thrust area and will have a unique opportunity to help shape Purdue's vision and research/education agenda in "Big Data".

Candidates for tenure and tenure-track positions at the Assistant/Associate professor level will be considered. Strong interest in inter-disciplinary activities is required. Outstanding candidates with an interest in all data-related areas of computer science and engineering, physics, civil engineering and library science will be considered. Examples of specific fields of interest are data infrastructure (storage and networking), system software infrastructure (OS, programming models), scalable analytics (data mining and machine learning at scale), analytics presentation (information visualization) and data-enabled methods (data curation and preservation) and applications in domain sciences. A detailed description of open positions is available at <http://www.cs.purdue.edu/hiring/bigdata>.

Candidates must hold a PhD degree in one of the above-mentioned areas or in a closely related discipline, or an MLS for appointment within the Libraries faculty, have demonstrated potential for excellence in research, and be committed to excellence in teaching. Successful candidates will be expected to teach undergraduate and graduate courses, conduct research in their field of expertise, and participate in interdisciplinary "Big-Data" activities.

Salary and benefits are highly competitive. Submit applications online at <http://www.cs.purdue.edu/hiring/bigdata>. The application should include a cover letter, a complete and detailed vitae, and statements of research and teaching interests. Also, please include names, addresses, telephone numbers, and email addresses for three or more references. For questions regarding the application process, please contact Nicole Piegza (piegza@purdue.edu). Applications for positions to begin in Fall 2013 are now being considered; the review will continue until the positions are filled. A background check will be required for employment in these positions. Hard copy applications can be sent to:

Faculty Search Chair
Big Data Search Committee
305 N. University Street
Purdue University
West Lafayette, IN 47907

Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer fully committed to achieving a diverse workforce

University of Central Florida

Center for Research in Computer Vision (CRCV) Faculty Positions Available

The University of Central Florida (UCF) has recently established a University level Center for Research in Computer Vision (CRCV). The common goal of the center is to strongly promote basic research in computer vision and its applications.

CRCV is looking for multiple exceptional tenured or tenure-track faculty members, at all levels in the Computer Vision area. Of particular interest are mid-career and senior candidates with a strong track record of publications and research funding. CRCV will offer competitive salaries and start-up packages, and UCF provides generous benefits. Faculty hired at CRCV will be tenured in the Electrical Engineering & Computer Science department and will be required to teach a maximum of two courses per academic year and be expected to bring in substantial external research funding. In addition, Center faculty are expected to have a vigorous program of graduate student mentoring and are encouraged to involve undergraduates in their research.

Applicants must have a Ph.D. in an area appropriate to Computer Vision by the start of the appointment and a strong commitment to academic activities, including teaching, scholarly publications and sponsored research. Prefer applicants with an exceptional record of scholarly research and, at the senior levels, be highly recognized for their technical contributions and leadership in their areas of expertise. In addition, successful candidates must be strongly effective teachers.

To submit an application, please go to:
<http://www.jobswithucf.com/postings/34681>

Applicants must submit all required documents at the time of application which includes the following: Research Statement; Teaching Statement; Curriculum Vitae; and a list of at least three references with address, phone numbers and email address.

Applicants for this position will also be considered for position numbers 38406 and 37361.

University of Chicago

Department of Computer Science Associate Professor - Req # 01629

The Department of Computer Science at the University of Chicago invites applications from qualified candidates for faculty positions at the rank of Associate Professor in the area of machine learning. Outstanding researchers working in both the theory of machine learning and applications to areas such as natural language processing, computer vision, and computer systems are encouraged to apply.

Candidates must have a doctoral degree in computer science or a related field and be several years beyond

the Ph.D. Candidates are expected to have established an outstanding independent research program and will be expected to contribute to the Department's undergraduate and graduate teaching programs.

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

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 Computation Institute, the Toyota Technological Institute, the Department of Statistics, and Argonne's Mathematics and Computer Science Division.

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 multiple 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 on an electric commuter train.

All applicants must apply through the University's Academic Career Opportunities website <http://tinyurl.com/at8olk> and must upload a curriculum vitae with a list of publications, a succinct outline of research plans, a one-page teaching statement and a reference contact list consisting of three people. Review of completed applications will continue until the position is filled.

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

University of Chicago

Multiple Openings for Postdoctoral Scholars

The Systems Group (systems.cs.uchicago.edu) in the Department of Computer Science has multiple openings for Postdoctoral Scholars in Computer Architecture and Systems Software. Computer architecture research explores design, implementation, and evaluation energy-efficient heterogeneous architectures. System software research will encompass monitoring and adaptation frameworks for runtime optimization of energy, performance, and resilience tradeoffs. Candidates should also be comfortable with performance analysis and workload characterization. Work will be performed under the direction of Professors Andrew A. Chien and Henry Hoffmann.

Requirements:

PhD in computer science, computer engineering, or a related field. Drive and teamwork skills are essential

Professional Opportunities

for pioneering new generations of computer systems to achieve new levels of performance in an era of power constrained computing.

To apply, contact Professors Chien or Hoffmann at: achien@cs.uchicago.edu or hankhoffmann@cs.uchicago.edu.

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

University of Chicago

Department of Computer Science Lecturer

The Department of Computer Science at the University of Chicago invites applications for the position of Lecturer. Subject to the availability of funding, this would be a three year position with the possibility of renewal. This position involves teaching in the fall, winter and spring quarters, and is paid uniformly over 12 months. The duties include one week of preparation before the fall quarter; the preparation for the winter and spring quarters can be done in the fall and winter, respectively. The successful candidate will have exceptional competence in teaching and superior academic credentials will carry responsibility for teaching computer science courses and laboratories. Applicants must have a Ph.D. in Computer Science or a related field and have experience teaching Computer Science at the College level.

Applicants must apply on line to the University of Chicago Academic Careers website at <http://tinyurl.com/bkda22h>. Applicants must upload a curriculum vitae with a list of publications and a one-page teaching statement. In addition, three reference letters will be required. Screening of applications will begin March 15, 2013, and will continue until the position has been filled.

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

University of Louisville

Computer Engineering and Computer Science Tenure Track Assistant Professor

Tenure Track Assistant Professor Position available at the J. B. Speed School of Engineering in the Computer Engineering and Computer Science Department.

Details are at University of Louisville Higher Ed link: <http://www.higheredjobs.com/m/details.cfm?JobCode=175726936&Title=Assistant%20Professor%20%28Job%20ID%3A%20UL023%29>

The University Of Michigan, Ann Arbor

Department Of Electrical Engineering and Computer Science - Computer Science and Engineering Division CSE Lecturer III

Posting Begin Date: 3/05/2013
Posting End Date: 4/02/2013

Applications are accepted through the University of Michigan's job posting site at http://umjobs.org/job_detail/79912/cse_lecturer_iii

Responsibilities*

Primarily to teach introductory courses in Computer Science and Engineering on programming, discrete mathematics, data structures, etc. Instructor will be responsible for developing course materials, lecturing, holding office hours and preparing and grading exams, managing and grading class projects.

Additional administrative duties, as needed. Such as, mentoring and advising students and student groups, participate on departmental, College and University committees in support of Computer Science & Engineering initiatives.

Required Qualifications*

- * PhD degree in Computer Science, Computer Engineering, or related discipline.
- * Previous effective teaching experience as evidenced by evaluations.
- * Demonstrated support of academic programs and student success.
- * Strong oral presentation and communication skills are required.

Selection criteria based on resume with supplemental materials and in-person interview.

Desired Qualifications*

Ability to teach advanced level courses in computer science and engineering. Course descriptions can be found at: www.engin.umich.edu/~in/eecs/courses.html

Additional Information

- Department: Computer Science & Engineering
- Hours: 40 (100%)
- Appointment period: Sept-May (U-YR)
- Duration of appointment: Sept. 1, 2013 through May 31, 2016

Salary range: Anticipated to be between \$75,000 and \$80,000, dependent upon experience and credentials.

Union Affiliation

This position is covered under the collective bargaining agreement between the U-M and the Lecturers Employee Organization, AFL-CIO, which contains and settles all matters with respect to wages, benefits, hours and other terms and conditions of employment.

Application Deadline

Application deadline is two weeks from posting date. Decisions will be made within 1 month of the posting date. Final hiring approval is subject to administrative approval.

U-M EEO/AA Statement

The University of Michigan is an equal opportunity/

affirmative action employer.

University of Missouri-Columbia

Teaching Professor/ Instructor of Computer Science

The University of Missouri-Columbia (MU) invites applications for the position of non-tenure track Teaching Professor or Instructor in the Department of Computer Science. We are seeking candidates with excellent knowledge in core CS areas who are comfortable teaching and managing high-enrollment classes. Applicants must have a graduate degree in Computer Science or in a closely related field. Ph.D. degree is required for the rank of Teaching Professor (either at the assistant or associate level; depending on qualifications).

The position responsibilities include:

- Instruct core CS courses including introductory programming with a teaching load of up to four courses per semester.
- Participate in curriculum development with the CS Undergraduate Committee.
- Serve on departmental, college, and/or university committees.

Start of this position is fall semester 2013. Salary is competitive and commensurate with qualifications.

MU is the first state university west of the Mississippi River and recognized as one of the most comprehensive schools in the United States. Columbia has consistently been ranked by Money magazine as one of the nation's top places to live because of its excellent education system, economy, health care, housing opportunities and general quality of life.

Additional information about the Department of Computer Science can be found at <http://engineering.missouri.edu/cs> which contains direct links to the College and University for detailed information. The starting date for this position will be fall semester 2013. Review of applications will begin immediately, and will continue until the position is filled.

Please apply online at <http://hrs.missouri.edu/find-a-job/academic/>. A letter of application, teaching statement, and the names and contact information of at least three professional references need to be uploaded in the Attachment section of the application. A curriculum vitae must be provided in the Resume/ CV section. Contact muhrs@missouri.edu with questions about the application process. Questions regarding the position should be directed to:

Chair of CS Instructor Search Committee
201 Engineering Building West
University of Missouri-Columbia
Columbia, MO 65211
Email to blumerj@missouri.edu

The University of Missouri-Columbia is an equal opportunity/affirmative action employer and is

Professional Opportunities

designated a Doctoral/Research Extensive Institution by the Carnegie Foundation for the Advancement of Teaching.

University of Nebraska at Omaha

College of Information Science and Technology STEM Faculty Position in Computer Science

The College of Information Science and Technology (IS&T) is an interdisciplinary college focusing on meeting the needs of a vibrant metropolitan area. The College invites applications for a STEM position within the college's computer science department. The position is open to all ranks. Candidates applying for this position should have a well-established, active and vigorous research program in any computing area with an emphasis on STEM education and research. This mid-career faculty will have the experience to provide leadership in the college and the campus relating to STEM coupled with a strong research emphasis in computing related disciplines and in the pedagogical issues associated with STEM education in computing. The successful candidate will have completed a doctorate in computer science or affiliated disciplines and a demonstrated ability to generate external research and development grants. Teaching experience and publication record must be commensurate with the rank sought. Contributions to service in the form of interactions with university, business, government agencies and professional organizations are expected and important requirements for this position. Qualified candidates will be considered for an endowed professorship.

In addition to the computer science department, the college has two other units – an Information Systems and Quantitative Analysis department and a School of Interdisciplinary Informatics. The College of IS&T's academic program portfolio includes five undergraduate degree programs (Computer Science, Management Information Systems, Bioinformatics, Information Assurance, IT Innovation) and three Master of Science degree programs (Computer Science, Management Information Systems and Information Assurance). The college also hosts an innovative college-wide interdisciplinary PhD in Information Technology degree. Two graduate degrees in Biomedical Informatics are currently at the stages of approval. The college of IS&T has nearly 1,000 total students with 300 graduate students and 700 undergraduate students.

The College of IS&T has nearly 60 full-time tenure track faculty/staff and an active research grants portfolio of \$15 million with funds from federal agencies (e.g., NSF, NIH, Dept of Ed), state government (e.g., NRI, NSF EPSCoR, NU Foundation), a number of local and national corporations and foundations. The college's interdisciplinary focus has resulted in a variety of collaborations with units across the University of Nebraska Omaha and the rest of the University of Nebraska system including

the medical center and a number of private and public organizations.

Individuals who desire to contribute to the development of these programs and lead the charge on STEM initiatives in the college are encouraged to apply. We invite candidates to visit the college web site at <http://www.ist.unomaha.edu> for more information. To apply, please visit the UNO careers web site at www.unomaha.edu/humanresources/employment.php, create your account and apply for this position. Cover letter, curriculum vita and list of references must be attached to the electronic application. If you have any additional questions, please contact:

Dr. Mahadevan Subramanian, Chair STEM Search Committee
Email: msubramaniam@unomaha.edu
Department of Computer Science
College of Information Science & Technology
University of Nebraska at Omaha
6001 Dodge Street
Omaha NE 68182-0116
Phone: (402) 554-4984
Fax: (402) 554-3284

The university and college have a strong commitment to achieving diversity among faculty and staff. We are particularly interested in receiving applications from members of underrepresented groups and strongly encourage women and persons of color to apply for this position.

The University of Nebraska at Omaha is the only public, metropolitan university in the state. Located in the heart of Nebraska's largest city, UNO is a comprehensive university offering programs at the bachelor's, master's, specialist, and doctoral degree levels. Serving approximately 15,000 students, UNO offers more than 130 undergraduate majors and more than 60 graduate programs in a wide variety of fields. In addition to the university-wide Graduate College, UNO's colleges include Arts and Sciences, Business Administration, Education, Communication, Fine Arts and Media, Information Science and Technology, Public Affairs and Community Service and Continuing Studies.

The University of Nebraska at Omaha does not discriminate in its academic, employment or administration policies and abides by all federal, state and regental regulations pertaining to same. Employment eligibility verification is required for all new hires. UNO provides reasonable accommodation for the known disabilities of applicants and employees, unless to do so would pose an undue hardship. If you need accommodation in order to complete the application process or to perform any essential element of the position sought, please contact the A-line Affirmative Action Office in the Office of Academic & Student Affairs. Address: Eppley Administration Building 202, University of Nebraska at Omaha, Omaha NE 68182-0185. Telephone: 402/554-2262,

FAX 402/554-4896

University of Nebraska at Omaha (UNO)

School of Interdisciplinary Informatics, College of Information Science and Technology

Tenure-Track Associate Professor/Full Professor of Information Assurance (Cybersecurity)

Applications are invited for a tenure-track position at the Associate /Full Professor level in Information Assurance (IA) (Cybersecurity) at the School of Interdisciplinary Informatics, College of Information Science and Technology (CIST), University of Nebraska at Omaha (UNO).

Candidates must have a distinguished research, teaching and service record, and demonstrated leadership in developing and expanding (funded) research programs. The salary for this position is highly competitive and funding for doctoral students and post-docs is available. Candidates are expected to have a terminal degree in a closely related field to IA.

CIST has over 600 undergraduates in 5 degree programs (IA, CS, Bioinformatics, IS, and IT Innovation), 230 M.S. and 27 Ph.D. students and 50 full-time faculty. It is recognized by ACM as one of the 5 pioneers in the IT schools movement and houses 4 research centers: Nebraska University Center for Information Assurance (NUCIA), Center for Collaboration Science, Consortium for Public Health Informatics and the Center for Management of Information Technology. NUCIA (<http://nucia.ist.unomaha.edu>) is a National Security Agency (NSA) and Department of Homeland Security (DHS) designated Center for Academic Excellence in Information Assurance Education (CAE/IAE).

In 2012, U.S. Strategic Command (USSTRATCOM) announced a partnership with the Nebraska University (NU) system to form a University-Affiliated Research Center (UARC). The initial research funding for this UARC has a ceiling maximum of \$84 million over the next 5 years. At UNO, where USSTRATCOM has been a long-time partner, computer security and technology will play a large role.

UNO is located in Nebraska's largest city and is regarded as a forward-thinking, comprehensive doctoral/research metropolitan university. UNO offers nearly 200 programs of study ranging from baccalaureate through doctoral degrees, and its online Bachelor of General Studies degree was recently ranked 11th in the nation. The faculty represents the very best in their fields, earning national teaching awards, securing federal research funding, and advancing the horizons of knowledge in their fields of interest. With approximately 12,600 undergraduate and 2,800 graduate students, UNO is set to reach 20,000 students by the year 2020. More than 1700 international students from 131 countries studied at UNO last year.

Professional Opportunities

Omaha is the home of 5 "Fortune 500 Companies" and many IT companies have major research and development facilities in Omaha. Opportunities for joint university-industry research projects are excellent. The college has over \$20 million in active research and development grants.

For more information contact Dr. Ann Fruhling, School of Interdisciplinary Informatics Director, at afruhling@unomaha.edu or visit <http://Si2.ist.unomaha.edu>. The search committee will evaluate applications immediately. To apply, please visit: <http://www.unomaha.edu/humanresources/employment.php>.

The university and college have a strong commitment to achieving diversity among faculty and staff. We are particularly interested in receiving applications from members of underrepresented groups and strongly encourage women and persons of color to apply for this position.

University of South Carolina

Department of Computer Science and Engineering Assistant Professor Positions: Robotics, HCI, and Secure Software Development

The University of South Carolina invites applications for two tenure-track faculty positions at the rank of assistant professor in the Department of Computer Science and Engineering. The positions reflect the growth of the Department in research and education. The Department will consider exceptional candidates in any computing research areas, but is particularly interested in candidates whose primary research expertise is in robotics, human-computer interaction, or the development of secure software.

Requirements include a PhD in a relevant field, a record of exceptional accomplishments, and strong potential for research and teaching. Persons joining the program will have significant opportunities and access to world-class university and state-wide laboratories and staff. The Department of Computer Science and Engineering offers bachelor's, master's, and doctoral degrees. The Department has 23 full-time faculty members (eleven of whom are NSF CAREER award recipients), an undergraduate enrollment of 424 students, a graduate enrollment of 102 students, and over \$2 million in annual research expenditures. University leadership has made growth of the Department a high priority. The University of South Carolina is located in Columbia, the capital and technology center of South Carolina, and is the comprehensive graduate institution in the state with an enrollment of more than 25,000 students.

Applications must include a curriculum vitae, research and teaching plans, and contact information for at least three references. Applications should be submitted electronically to CSE@cse.sc.edu. The search committee will begin reviewing applications immediately and continue until the positions are filled.

Inquiries about the positions may be made to Dr. Michael N. Huhns, Chair of the Department of Computer Science and Engineering, at (803) 777-5921 or huhns@sc.edu.

The University of South Carolina is an affirmative action/equal opportunity institution. Women and minorities are encouraged to apply.

University of Southern California

Computational Biology and Bioinformatics Post-doc Research Associate in Bioimaging Analysis

A postdoctoral position is available in the Alber Computational Biology lab at the University of Southern California in Los Angeles. The research focus is to develop and apply computational methods for the analysis of cryo-electron tomograms and x-ray tomograms of whole cells or cellular organelles. In particular, the prospective candidate will develop advanced image pattern mining methods in the emerging area of visual proteomics or visual genomics. Research will be conducted in close collaboration with experimentalists.

The qualified applicants should have a Ph.D. degree in computer science with prior experiences in image analysis. Previous experience in bioinformatics is preferred but not essential.

The USC computational biology division is highly interactive including 9 faculty members with research interest in computational sequence analysis, data integration, epigenomics, evolution, and structural biology. There are extensive collaborations between computational and experimental biologists. We are also an NIH Center for Excellence in Genomic Sciences.

Interested applicants should send curriculum vitae, and contact addresses of two references via email to Prof. Frank Alber at alber@usc.edu.

USC Viterbi

School of Engineering - Computer Science Lecturer Position

The Computer Science Department (<http://cs.usc.edu>) at the USC Viterbi School of Engineering (<http://viterbi.usc.edu>) seeks candidates for teaching positions (Lecturer) to teach undergraduate and graduate courses. These are full time, benefits eligible faculty positions on the non-tenure track. Competitive candidates will have the training and experience necessary to teach effectively in a highly-ranked Computer Science department that advances undergraduate students through an accredited BS degree program and graduate students enrolled in MS and PhD programs. Candidates will have a background (or specific interest) in one or more of the following areas: Agents, Algorithms, Artificial Intelligence, Complexity, Databases, Games, Graphics, Information Management, Multimedia, Natural Language

Processing, Networks, Programming, Robotics, Software Systems and Engineering, Systems, and Vision.

These are primarily teaching positions; all candidates are expected to have a strong commitment to teaching. Lecturers will spend the majority of their time on teaching and teaching-related duties with reduced obligation for research and University service. Qualified candidates should have a doctoral degree in Computer Science (or equivalent) by the date of appointment. Salary and benefits are competitive. While we seek applications at the level of Lecturer, in exceptional cases, applicants with longer teaching experience may also be considered for a commensurate position (e.g., Senior Lecturer).

Applicants should submit their applications online at: <http://viterbi.usc.edu/facultyapplications/csfaculty2013/>

Applications must include a cover letter, a detailed curriculum vitae, a teaching statement, and names of at least three professional references, at least two of whom must be familiar with, and able to comment on, the applicant's teaching experience. Applicants may also optionally include a research statement. Applications should be received by March 1, 2013. Later applications will be considered to the extent possible.

The USC Viterbi School of Engineering is among the top tier engineering schools in the world. It counts 174 full-time, tenure-track faculty members, and it is home to the Information Sciences Institute, two National Science Foundation Engineering Research Centers, a Department of Energy EFRC (Energy Frontiers Research Center), and the Department of Homeland Security's first University Center of Excellence, CREATE. The school is affiliated with the Alfred E. Mann Institute for Biomedical Engineering, the Institute for Creative Technologies and the USC Stevens Institute for Innovation. Research expenditures typically exceed \$180 million annually. With 33 tenure-track, 42 research faculty, and 6 teaching faculty, the USC Department of Computer Science is one of the nation's leading centers of research and education in the field.

USC values diversity and is committed to equal opportunity in employment. Women and men, and members of all racial and ethnic groups, are encouraged to apply.

The University of Virginia

Department of Computer Science Lecturer

The University of Virginia School of Engineering and Applied Science invites applications for nine-month, full-time Lecturer positions in the Department of Computer Science for the fall 2013 and spring 2014 semesters. Renewal for subsequent years is contingent on satisfactory performance and availability of funds. Responsibilities include teaching three sections per

Professional Opportunities

semester of a mix of upper- and lower-division courses, with course assignment based on experience and abilities.

Preference will be given to candidates with a Ph.D., experience in undergraduate teaching, industry work in computer science, and interest in innovative curriculum development.

Applicants must apply online at: <https://jobs.virginia.edu> and search by Posting Number 0611659. Applicants are requested to submit a letter of application, current curriculum vita, statement of teaching philosophy, and contact information for at least three references. Previous teaching evaluations are also welcome, but not required. Review of applications is expected to begin March 21, 2013, and will continue until the positions are filled.

For additional information, please e-mail csjobs@virginia.edu.

The University of Virginia is an equal opportunity/affirmative action employer committed to developing diversity in faculty, and welcomes women, minorities, veterans and persons with disabilities.

University of Washington

The Information School

Lecturer or Senior Lecturer in Masters of Human-Computer Interaction + Design Program

The Masters of Human-Computer Interaction + Design program (<http://mhcid.washington.edu>) at the University of Washington invites applications for a full time (100% FTE) Lecturer or Senior Lecturer. The MHCI+D program is a joint effort of the primary member departments of dub (<http://dub.washington.edu>), which are Computer Science & Engineering, the Design Division of the School of Art, Human-Centered Design & Engineering, and the Information School. The position's main responsibilities involve teaching and service in the MHCI+D program. University of Washington faculty engage in teaching, research and service.

The successful candidate will join a vibrant UW faculty in the dub group conducting interdisciplinary work in human-computer interaction and design. Current activities include work in CSCW, computer-mediated communication, ICTD, user research, design methods, information visualization, user experience design, emerging communication technologies, assistive technologies, and health applications. Faculty members also routinely engage in projects and partnerships with affiliates from the region's noted high-tech industry. Seattle is home to many prominent technology companies, along with a robust startup and global health community

The position requires a Masters degree in a field related to Design or HCI or significant work and/or teaching experience in these areas, level of appointment and compensation will be commensurate with the

applicant's qualifications.

Review of applications will begin March 31, 2013. The University of Washington is building a culturally diverse faculty and strongly encourages applications from women and minority candidates. The University is an affirmative action, equal opportunity employer. The University of Washington, a recipient of the 2006 Alfred P. Sloan award for Faculty Career Flexibility, is committed to supporting the work-life balance of its faculty.

For complete posting and information on how to apply please visit us at <http://ischool.uw.edu/jobs/faculty>

University of Waterloo

David R. Cheriton School of Computer Science Canada Excellence Research Chair in Security Privacy

We invite expressions of interest for the position of Canada Excellence Research Chair (CERC) in Security and Privacy for the New Digital Economy, to be held at the tenured full professor or associate professor level in the David R. Cheriton School of Computer Science at the University of Waterloo <https://cs.uwaterloo.ca>

The CERC program awards world-class researchers up to \$10 million over seven years to establish ambitious research programs at Canadian universities. Further details are offered at www.cerc.gc.ca. An overall package worth more than twice this amount will fund the CERC, additional faculty and staff, and their required infrastructure.

The mandate of this CERC is to create novel solutions for usable security and privacy-enhancing technologies, in an environment that is increasingly connected through the use of mobile devices (such as smartphones and tablets) and social networking. Included is a focus both on producing highly talented graduates and on launching research that will drive solutions for tomorrow's organizations and individuals. The Chair's research will build on strengths in the University of Waterloo's Faculty of Mathematics in the areas of cryptography, security, privacy, mobile devices, networks and distributed systems.

The applicant will be an unequivocally outstanding researcher, well-recognized as exceptional within the subfield of security and privacy. It will also be essential for the candidate to demonstrate remarkable promise in leadership and the mobilization of talents of others to deliver successful outcomes. In particular, we are looking for an individual who is expert in security solutions for networked and mobile environments and who also has a critical appreciation for how the topic of privacy is intricately linked to the required solutions. The CERC needs to align with the hallmark of the University of Waterloo's computer science researchers: demonstrating exceptional talent in conducting research that leads to industrially-relevant practical applications. As it will be important to engage both organizations and citizens in adopting the novel technological solutions

that are developed, the CERC must also have an aptitude in working well with public policy experts. The leadership qualities of the applicant will include an essential talent in seeing through to completion a dramatic vision for the training of students and postdocs, who will emerge with a unique skillset to become tomorrow's leaders of industry, government and academia.

To apply, send a cover letter and a curriculum vitae by e-mail: deanmath@uwaterloo.ca

or by regular mail:

Ian Goulden
Dean, Faculty of Mathematics
200 University Avenue West
University of Waterloo
Waterloo, Ontario, Canada N2L 3G1

Applications received by May 30, 2013 will receive full consideration. Selection of the candidate is subject to final oversight by the government's CERC Selection Committee.

The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native people and persons with disabilities. We are especially proud to offer organizations for Women in Computer Science (cs.uwaterloo.ca/~wics) and Women in Mathematics (women.math.uwaterloo.ca) as well as an AccessAbility Services Office for persons with disabilities (uwaterloo.ca/disability-services) that serve to offer a progressive, welcoming environment. All qualified candidates are encouraged to apply; Canadians and permanent residents will be given priority.

The University of Waterloo has been rated as the most innovative university in Canada for the 21st year in a row. We offer an enlightened intellectual property policy, which vests rights with the inventor; this policy has encouraged the creation of many spin-off companies. Located 100km from metropolitan Toronto, the University of Waterloo is in the region of Waterloo with a population of 500,000. The area is in the heart of Canada's technology triangle and offers a wealth of outdoor and indoor recreational activities, as well as an extensive performing arts community.

Virginia Commonwealth University - VCU

Computer Science Faculty, Tenure-Track, Richmond, Virginia

The Computer Science Department at Virginia Commonwealth University (VCU) invites applications for a tenure-track/tenured position at the rank of Assistant/Associate/ Professor.

Candidates must have a Ph.D. in computer science, or in the related area. Junior faculty will be required to have an established research agenda and a clear potential for external funding, and potential for scholarship or creative expression to complement and expand existing expertise in the department and the

School of Engineering, especially in the field of cyber security, broadly defined. For Associate/Professor level, faculty member will be required to have a well developed scholarly/research portfolio with evidence of multidisciplinary applications and external funding appropriate to complement and expand existing expertise within the department, especially in the field of cyber security. Successful candidates are expected to teach courses in Computer Science at both the undergraduate and graduate level. Additionally, candidate must have demonstrated experience working in and fostering a diverse faculty, staff, and student environment or commitment to do so as a faculty member at VCU is required.

VCU, the largest urban university in Virginia, is a Carnegie research I extensive institution ranked in the top 100 universities in the U.S. in federal R&D expenditures, with a richly diverse community and commitment to multicultural opportunities.

For best consideration, applications should be submitted by March 1, 2013. Candidates are to submit applications electronically to cmscsearch@vcu.edu as a single PDF file that includes (in this order) a cover letter, resume, research and teaching statement, and the names and e-mail addresses of three references. (Reference letters should be provided only upon the request of the search committee).

Virginia Commonwealth University is an equal opportunity, affirmative action university providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability.



TANDY ENDOWED CHAIR IN CYBER SECURITY

TANDY SCHOOL OF COMPUTER SCIENCE

The Tandy School of Computer Science at the University of Tulsa is seeking a candidate to fill the Tandy Endowed Chair in Cyber Security. Applicants should have a distinguished record in research, education, and service in Cyber Security, Information Assurance, or a related area at the rank of full professor. The applicant should be open to collaborative and multi-disciplinary research activities. Responsibilities will include spearheading the development of new research and curriculum areas within the school and continuing to advance the international recognition of the University of Tulsa in this field. Applicants should possess a PhD or equivalent in a closely related field for this tenure track position.

The University of Tulsa is a private university with approximately 4500 undergraduate, graduate, and law students. The Tandy School of Computer Science occupies the second floor of the new J. Newton Rayzor Hall dedicated in Nov. 2011. The School offers a B.S., M.S. and Ph.D. in Computer Science. The National Security Agency and U.S. Cyber Command have designated The University of Tulsa as a National Center of Academic Excellence in Cyber Operations. The University of Tulsa's information security programs have previously received similar nods of approval from the NSA, National Science Foundation, Department of Defense and U.S. Secret Service. The Tandy School of Computer Science houses TU's Cyber Corps Program which currently has 60 students from a variety of backgrounds including computer science, mathematics, electrical engineering, chemical engineering, mechanical engineering, law and business.

Tulsa is located in northeast Oklahoma in "Green Country," a region of rolling hills, lakes and wooded landscapes. With a metropolitan population of approximately one million, the city offers cosmopolitan amenities while maintaining the livability of a more modest urban center. Tulsa offers diverse arts, entertainment, and recreation venues appealing to young adults and families.

To apply, please send CV, teaching statement and research statement, and contact information for four references as a single PDF by e-mail to **Dr. Rose Gamble, Chair of the Search Committee** at gamble@utulsa.edu.

The University and Tandy School of Computer Science share a strong commitment to achieving diversity among faculty and staff. We particularly encourage applications from underrepresented groups. The University of Tulsa is an Equal Opportunity/Affirmative Action Employer.