



CRA

Computing Research
Association

Computing Research News

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

2

2014 CRA Conference at Snowbird

4

Announcements:

Conquer: A new website on undergraduate research and graduate school for students, mentors, and advisers

CRA Hosts 2014 Tisdale Fellows Luncheon

5

Taulbee Heads-up: Changes to the CRA Taulbee Survey for Fall 2014

Anne Condon Receives Technical Leadership ABIE Award

6

New Look for CRA Unveiled at the 2014 CRA Conference at Snowbird

7

New Leadership at CCC

8

CERP Infographic

9

Expanding the Pipeline

CRA-W BECA Awards: Recognizing Junior Researcher Achievements

11

Recent ISAT/DARPA Workshop Targeted Approximate Computing

12

What's Going on at the Computing Community Consortium (CCC)

14

CRA Board Members

CRA Board Officers

CRA Staff

Column Editor

15

Professional Opportunities

2014 CRA Conference at Snowbird

The leadership of North American computing research community convened July 20-22, in Snowbird, UT. The biennial CRA Conference at Snowbird is our flagship conference where the leadership of the computing research community gathers to network and discuss common issues concerning the future of the field.

Outstanding speakers and panels addressed issues at the core of CRA's mission, from future research challenges, to growing the research pipeline, to major issues of policy and government.

Computing and the Human Experience:

The opening plenary session was an inspiring session by Grady Booch, IBM Research. In his plenary session, he examined the story of computing as it has unfolded across time, ending with an exploration of where it might lead us and how we might ourselves be more intentional in directing it.

A Policy Wonk's Plea for More and Better Policy Research and Engagement from Computer Scientists: Peter Swire, Georgia Tech, gave a talk offering his reasons why computer scientists should produce more explicitly policy-oriented research and become more involved personally in the policy process. He also shared ways that technologists can successfully navigate the unfamiliar culture and processes of political and policy debates. Slides from the presentation can be found [here](#).

Quantum Computing: Transforming the

Digital Age: Krysta Svore, Microsoft Research, showcased recent advances in quantum computing. Quantum devices have also significantly advanced such that components of a scalable quantum computer have been demonstrated in a variety of quantum systems. In her talk, she revealed some of the mysteries of this disruptive computational paradigm. She demonstrated recent advances in quantum algorithms for real-world applications and in scalable, fault-tolerant devices. Slides from the presentation can be found [here](#).



CRA
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**2014 CRA
Conference
at SNOWBIRD**

**JULY 20 – 22, 2014
Snowbird, Utah**

Conference Program

Broadening the Computing Research Community: Maria Klawe, Harvey Mudd, encouraged increasing diversity in the computing research community. While our discipline does well in encouraging members of underrepresented groups to go on to graduate programs, we have been less successful in attracting members of these groups into undergraduate programs. This talk discussed successful strategies for significantly increasing the number of women and students of color majoring in computer science. Slides from the presentation can be found [here](#).

Making a Federal Case for Computing: CRA's own Peter Harsha explained the new landscape for science policy and discuss what CRA and CRA's partners in the science advocacy community are doing to navigate in it. Slides from the presentation can be found [here](#).

The Computing Community Consortium (CCC) led a variety of sessions throughout the conference. Excitement was high for the programs being put on by the CCC:

► **Computing Visions 2025:** The Visions 2025 initiative was created to inspire the computing community to envision future trends and opportunities in computing research. A panel comprised of members from the Visions 2025 steering committee discussed the two workshops which have already happened and the future of this initiative. Slides from the presentation can be found [here](#).

► **Computing Research Futures:** Computing research continues to be at the forefront of innovation, impacting society in ways never before imagined. **Michael Franklin**, UC Berkeley, began the evening talking about where the field of data science is going. Maja Mataric, University of Southern California, then spoke about socially assistive technologies.

► **Refining the Computer Science Postdoc Experience:** The number of postdoc appointments in computer science has risen dramatically in the last ten years. There are concerns that postdocs be properly supported and mentored as they start their research careers. This panel presented results from the CCC CIFellows postdoc program and outlined efforts underway to refine and measure best practices for hosting postdocs and for supporting their career development. Slides from the presentation can be found [here](#).

New to the conference this year, were town hall discussion sessions that delved into developing a consistent timeline for graduate student acceptance notifications and the growing enrollments in computing courses. On Monday afternoon, attendees enjoyed a break from sessions to explore the natural beauty of the Snowbird location through guided hikes. Several hikers were lucky enough to see moose! Mark your calendars for the 22st biennial conference, which will take place in July 17-19, 2016, in the same beautiful location.

[The conference agenda is posted online and contains links to presenter's slides.](#)



Announcements

Conquer: A new website on undergraduate research and graduate school for students, mentors, and advisers



What is research in computer science? How can I find a research experience? Why should I consider going to graduate school in computer science? What are graduate schools looking for and how do I apply? These are questions undergraduates often ask their advisers and instructors. The new Conquer website (conquer.cra.org) seeks to provide answers.

The many valuable resources on the Conquer site include:

- ▶ Material for students on CS research, what graduate school is all about, and how to apply to graduate school.
- ▶ Resources for faculty on best practices in mentoring undergraduates in research, funding opportunities for involving undergraduates in research, and resources for advising students on careers in research and applying to graduate school.

- ▶ A complete slide deck advisers and faculty can use for a presentation on "Why Go To Graduate School?"
- ▶ A listing service where faculty can post summer research opportunities and undergraduates can search for opportunities as well as links to REU sites and other undergraduate research programs

Please share this site with your students and colleagues. We also encourage you to place a link to the Conquer site on your departmental website.

Conquer is co-sponsored by CRA, CRA-E, CRA-W, CCC, NCWIT, and CDC.



CRA Hosts 2014 Tisdale Fellows Luncheon



From left to right:

*Maxwell Kennedy, Business Software Alliance
(Angelo State University)*

Valerie Hartwick, Dell Computers (University of Virginia)

Man Nguyen, Technology CEO Council (UCLA)

Cody Giddings, Hewlett Packard (University of Michigan)

Yiyang Shen, Computing Research Association (NYU)

Jorge Benavides, Worldwide Insight (UC Berkeley)

Announcements, *continued*

Taulbee Heads-up: Changes to the CRA Taulbee Survey for Fall 2014



In Fall 2014, the CRA Taulbee Survey will begin using a new survey platform. The content of the survey is not changing, but the process is. One early difference will be in assigning user IDs. Previously, there was one password per department or academic unit that was shared among everyone who entered data into the system for that unit. Now, each system user will have his or her own ID.

If you are a department chair or someone with Taulbee responsibility for your academic unit, you should hear from

Betsy Bizot, CRA Director of Statistics and Evaluation, no later than August 15th, requesting a list of the individuals who should be authorized Taulbee users for your unit. If you do not hear from Betsy, please contact her at bizot@cra.org or survey@cra.org

The September CRN will have more information about the 2014 Taulbee, including due dates and a preview of system changes.

As always, we appreciate the time the departments put into responding to the Taulbee survey.



Anne Condon Receives Technical Leadership ABIE Award

From the Announcement:

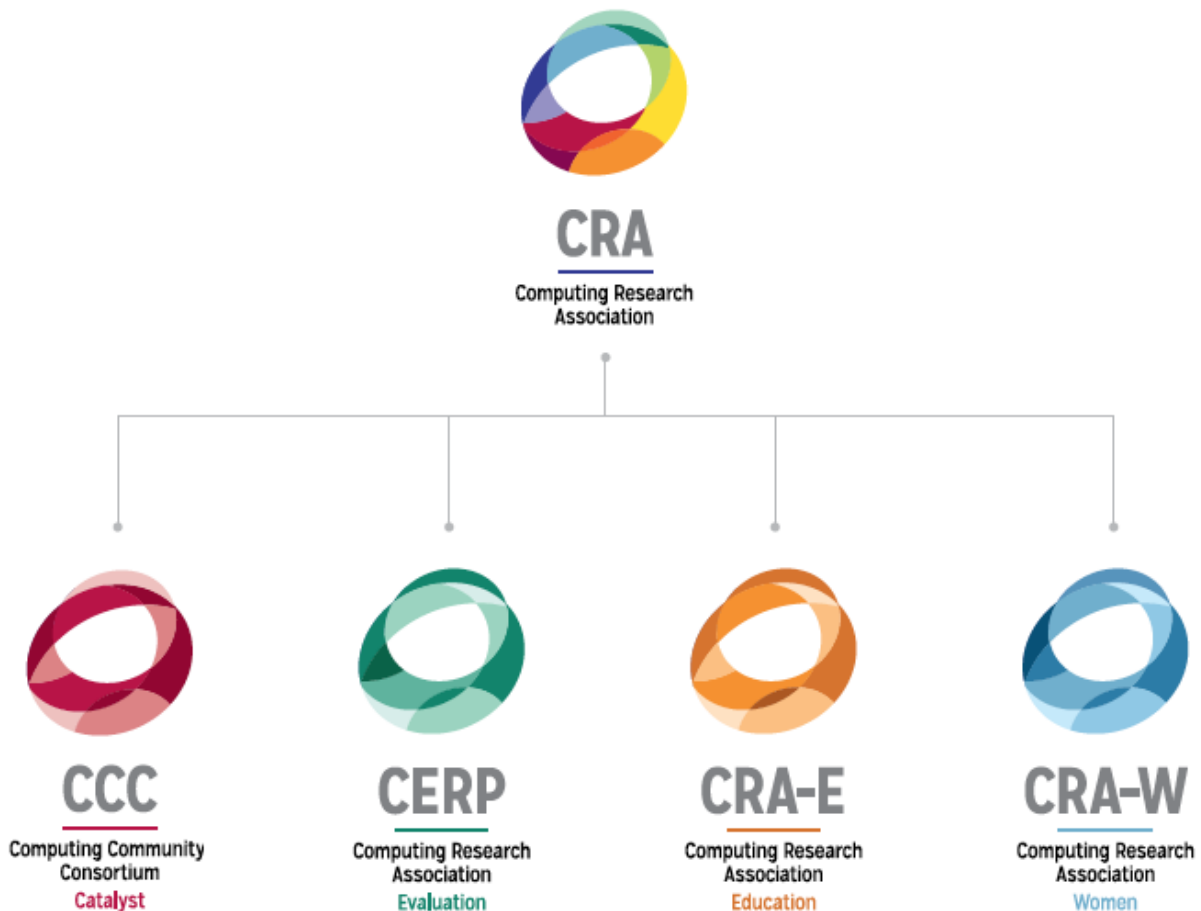
“Dr. Anne Condon has made significant research contributions in computational complexity and bio-molecular computing. She is considered the world’s leading expert on DNA and RNA sequence design, and among the leading figures in DNA and RNA folding prediction. She has increased the numbers and success of women in computing research in the U.S. and Canada, both through flagship projects of CRA-W and through her own research supervision and mentoring.”

New Look for CRA Unveiled at the 2014 CRA Conference at Snowbird

We are proud to announce the launch of a new brand for CRA and its committees. As the impact of CRA's activities are becoming more widely recognized and valued across our industry, we decided to develop a new brand identity that reinforces and amplifies our mission, objectives and programs. Our new brand is part of our larger effort to create a comprehensive communications strategy for CRA and its many activities. After updating our [mission statement](#), last fall we began developing a brand that positions CRA as dynamic and collaborative, while preserving the unique identities of CRA's distinct committees.

The new CRA symbol is designed to represent great minds coming together. The symbol was created by combining many ovals of different sizes into one symbol to illustrate dynamic collaboration. Each committee's logo is a different color to both strengthen its individual identity and connect it to the organization as a whole.

Attendees at the 2014 CRA Conference at Snowbird were among the first to view the new brand. We are excited to debut our new visual identity for all of CRA's committees and programs. [Click here to view our new CRA brochure.](#)



New Leadership at CCC

By Gregory D. Hager, CCC Chair



The Computing Community Consortium (the “CCC”) was created to catalyze and enable computing research, to promote “audacious thinking”, and to align the interests of the computer science community with problems of national interest. Since its beginnings in 2006, the CCC, under the leadership of its founding chair, Ed Lazowska, and

founding vice-chair, Susan Graham, has unquestionably had a transformative impact through its Visioning workshops, Visions and Challenges conference tracks (now Blue Sky Ideas Tracks), the Leadership in Science Policy Institute, the Computing Innovation Fellows program, and more. Major multi-agency funding programs, including Big Data, the National Robotics Initiative, and Smart and Connected Health, have all been influenced by the CCC in one way or another.

This year marked a “coming of age” for the CCC as I succeeded Susan Graham as Chair of the council, and Beth Mynatt (Georgia Tech) became Vice-Chair. This initiates a planned two-year succession of Chairs of the council, as prescribed by our newly minted bylaws. In short, the CCC has transitioned from “startup mode,” and is now operating as a long-term sustainable organization, fully chartered as a sub-committee of CRA and funded under a cooperative agreement by NSF.

Following Ed and Susan as chair is going to be a real challenge. However, the beauty of Computer Science is its remarkable ability to continually reinvent and redefine itself, and so also for the CCC. If I were to articulate one overarching goal for my chairmanship, it would be to further empower the council, and the community at large, to embrace change, to actively debate and challenge each other with new ideas, and to invent new ways to enhance and communicate the vitality and impact of computing research.

So, what lies ahead for the CCC? The future is never certain, but here are a few thoughts on where the computing community (and CCC) will be headed as our field continues to

push the boundaries in both core technologies and enabling new interdisciplinary fields.

- I believe that we’re seeing the beginnings of computing firmly embracing the physical world. The so-called “internet of things,” cyber-physical systems, the maker movement, robotics, and agile manufacturing are all rapidly gaining prominence as computing research problems with high societal and economic implications. Computing in the physical world poses new computer science challenges in safety, security, reliability, human-computer interfaces, distributed systems, verifiable software, power-efficient hardware – nearly every aspect of computing research.
- Computing in the social sphere is beginning to open up new opportunities in collaborative computation, crowd sourcing, and quantitative social science, not to mention the importance for continued research in privacy and security.
- The newly announced presidential B.R.A.I.N. initiative offers unique opportunities for a rapprochement of biological intelligence and artificial intelligence, neuromorphic systems, and entirely new opportunities for developing integrative models across physical scale, physiological mechanism, and function.
- Finally, as our field has grown, more than half of our PhDs now take non-academic positions – primarily industrial research and development. It is time to consider the implications of this change, now a decade old, for our field.

In closing, I want to emphasize that we are here for you, the computing community. Help us to help you by participating in CCC events, by proposing new ideas for Visioning Workshops, by bringing Blue Sky Ideas tracks to your conferences to encourage out-of-the box thinking, and by sending us your ideas and thoughts for how we can better serve the computing research community.

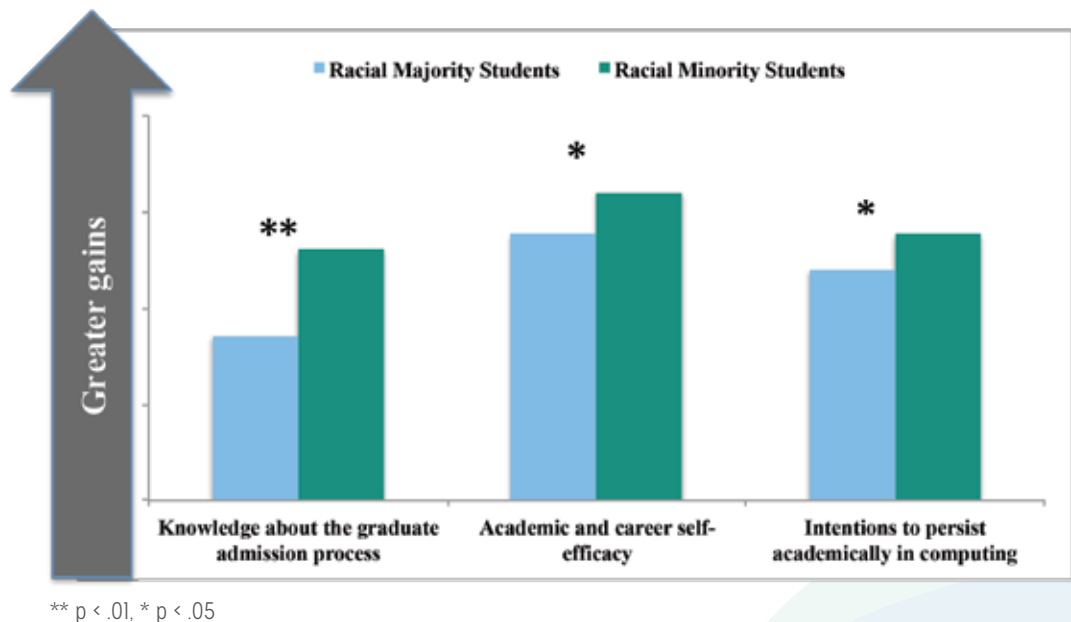
Center for Evaluating the Research Pipeline (CERP) Infographic

By Ama Nyame-Mensah

Students of racial minority benefit more from formal research experiences than students of racial majority

CERP recently compared critical outcomes of 187 undergraduate computing students who had participated in a formal research experience (REU) during the 2012 academic year. Students of racial minority who had participated in a REU reported greater gains in (a) knowledge about the graduate admission process, (b) academic and career self-efficacy, and (c) intentions to persist in computing compared to students of racial majority. These findings suggest that REUs in computing

provide students of racial minority with an opportunity to be better prepared to apply for graduate study and develop self-efficacy. Further, formal REUs may be a particularly effective strategy for facilitating the matriculation of racial minority students through the computing pipeline.



Note: Racial minority students = Black or African Americans + Hispanics/Latina/os + Native Americans/Alaskan Natives (n = 31). Racial majority students = White students + Asian/Asian Americans + Pacific Islanders/Native Hawaiians (n = 156). A formal REU was classified as any of the following: undergraduate research experience at home institution, undergraduate research experience at another institution, or a research internship. **Gains in knowledge about the graduate admission process** were measured by aggregating three items assessing students' increased knowledge in the following areas: *Criteria for admission to graduate programs; How to get financial support for graduate school; How to select the right graduate program for you* (1 = None – 5 = A lot). **Gains in academic and career self-efficacy** were measured by aggregating five items that asked students to indicate how much their formal REU experience increased their confidence in the following areas: *Complete your undergraduate degree in computing; Get admitted to graduate school in computing, if you choose to; Complete a graduate degree in computing; Become a capable researcher in computing; Have a successful career in computing* (1 = None – 5 = A lot). **Gains in intentions to persist academically in computing** were measured by aggregating four items, which asked students to indicate how much their formal REU experience increased the likelihood that they would do the following: *Study computing in graduate school; Attend graduate school immediately after finishing your undergraduate degree; Earn a master's degree in computing; Earn a PhD in computing* (1 = Much less likely – 5 = Much more likely).



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

Expanding the Pipeline:

CRA-W BECA Awards: Recognizing Junior Researcher Achievements

By Jennifer L. Welch

The CRA-W Borg Early Career Award (BECA) is named in honor of the late Anita Borg, who was an early member of CRA-W and an inspiration for her commitment to increasing the participation of women in computing research. BECA targets women who are relatively early in their careers (at most 8 years post-PhD) with the goal of encouraging active contributions to helping increase the number of women in the computer science and engineering research community. The annual award is given to a woman in computer science and/or engineering who has made significant research contributions and who has contributed to her profession, especially in outreach to women. The award recognizes researchers in both academic and industrial/government research lab settings who have had a positive and significant impact on advancing women in the computing research community while serving as exemplary role models.

Past recipients include researchers from both academia and industry with distinguished research careers:

- 2013 - Yanlei Diao, University of Massachusetts Amherst
- 2012 - M. Bernardine Dias, Carnegie Mellon University and Katie A. Siek, University of Colorado Boulder
- 2011 - Alexandra (Sasha) Fedorova, Simon Fraser University
- 2010 - A.J. Brush, Microsoft Research and Radhika Nagpal, Harvard University
- 2009 - Kim Hazelwood, University of Virginia
- 2008 - Chandra Krintz, University of California, Santa Barbara
- 2007 - Li-Shiuan Peh, Princeton University
- 2006 - Gail Murphy, University of British Columbia
- 2005 - Yuanyuan Zhou, University of Illinois at Urbana-Champaign
- 2004 - Joanna McGrenere, University of British Columbia

The 2013 recipient, Yanlei Diao, works in the area of big data analytics and intelligent, real-time uncertain data management. Yanlei is an Associate Professor at the School of Computer Science, University of Massachusetts Amherst. She received her PhD in Computer Science from

the University of California, Berkeley in 2005. Her technical contributions have had a significant impact in industry, resulting in research awards from Cisco, Google, IBM, and NEC labs, among others, in addition to collaborations with leading medical institutes. Yanlei is currently Editor-in-Chief of ACM SIGMOD Record and Associate Editor of ACM Transactions of Database Systems (TODS).

Yanlei likes to choose challenging research topics that are grounded in reality. Her past work on data stream processing and uncertain data management is key to a variety of applications such as severe weather monitoring, computational astrophysics, and object tracking and monitoring. Recently, she has broadened her research to include genomics, in particular, using big data technology to decipher human genomes efficiently and accurately, with an ultimate goal to help combat cancer and realize the vision of personalized medicine.

Yanlei is fully committed to broadening the participation of women in computer science research. The person who initially introduced Yanlei to research was her Master's thesis advisor, Prof. Hongjun Lu. Prof. Lu's passion for research and caring for students deeply influenced Yanlei. Prof. Lu's passing after a long battle with cancer strengthened Yanlei's resolve to nurture the next generation of talented minds, as the best way for her to repay the debt that she owed both Prof. Lu and many others who supported and helped her along the way.

Yanlei has played a leadership role in outreach both in her school and in her research community. At UMass, she is



co-chairing the outreach committee of her school, with the goal of attracting more high school girls and women to computing. In her research community, she twice chaired the New Research Symposium at SIGMOD, which provides career advice and mentoring to graduate students and junior researchers, including many women. Yanlei is also a frequent speaker at mentoring workshops, including the CRA-W Graduate Cohort workshop and the SIGMOD DBMe mentoring workshop.

2014 is the 11th year the BECA award has been made. The 2014 recipient of the BECA award is Jaime Teevan, a Senior Researcher at Microsoft Research, and an Affiliate Assistant Professor in the Information School at the University of Washington. She received a Ph.D. in 2007 and an S.M. in 2001 from MIT, and a B.S. in Computer Science from Yale University. Working at the intersection of human computer interaction, information retrieval, and social media, she studies and supports people's information seeking activities. Jaime was named a Technology Review (TR35) 2009 Young Innovator for her research on personalized search. She co-authored the first book on collaborative Web search and was chair of the Web Search and Data Mining (WSDM) 2012 conference. Jaime also edited a book on Personal Information Management (PIM), edited a special issue of Communications of the ACM on the topic, and organized workshops on PIM and query log analysis.

When asked what she loves most about her job, Jaime says, "One of my favorite parts of being a researcher is that I have the freedom to explore whatever I think will be most impactful in the world." Her research explores how context can help people use digital information successfully, both from an algorithmic perspective and from an interaction perspective. In particular, she looks a lot at the personal, social, and temporal context of information use. Her goal is to use context to make the right information available at the right time in a lightweight and intuitive manner.

Jaime is passionate about mentoring young researchers and encouraging women to pursue computer science careers. She works with a number of graduate students, a high percentage of whom are female, talks regularly on topics related to gender and family, and publishes a popular web series on academic writing. As a mother to four young children, Jaime is particularly interested in helping researchers integrate parenthood with their academic pursuits. For example, she has

written several articles about conference travel with children, and worked with conference organizational committees to implement better support for attendees with families.

Jaime often brings her children with her to conferences. Regarding parenthood, Jaime says, "People often ask me for the secret to having little children and a productive research career, but, unfortunately, if there is one, I haven't discovered it. It's a lot of work, and the only way I succeed is with a lot of support. My husband is an involved partner and father, and my job provides a lot of flexibility. I do, however, find that parenthood and research are complementary. Being a mother makes me a better researcher, and vice versa. My children force me to allocate my time productively, prioritize sleep, and approach problems creatively. And conversely, being able to escape to the office sometimes keeps me from going crazy with all the noise, mud, and chaos at home."

The 2014 BECA award was officially presented to Jaime at SIGIR 2014 in Australia by Susan Dumais, Jaime's manager and long-time mentor, who also gave her Athena Lecture there. One of Jaime's seven-year-olds was there with her to celebrate.

About the Author:

Sandhya Dwarkadas is professor and chair of the Computer Science Department at the University of Rochester. She is a CRA-W board member and chair of the BECA awards committee. She received her M.S. and Ph.D. from Rice University, and her B.S. from the Indian Institute of Technology, Madras. Her research addresses problems at the boundary of hardware and software, at the architecture and runtime level, with a particular focus on concurrency.



Recent ISAT/DARPA Workshop Targeted Approximate Computing

From the CCC Blog

The following is a special contribution to this blog by CCC Executive Council Member [Mark Hill](#) and workshop organizers [Luis Ceze](#), Associate Professor in the [Department of Computer Science and Engineering](#) at the [University of Washington](#), and [James Larus](#), Full Professor and Head of the [School of Computer and Communication Sciences](#) at the [Ecole Polytechnique Federale de Lausanne](#).



Luis Ceze and Jim Larus organized a DARPA ISAT workshop on Approximate Computing in February, 2014. The goal was to discuss how to obtain 10-100x performance and similar improvements in MIPS/watt out of future hardware by carefully trading off accuracy of a com

putation for these other goals. The focus was not the underlying technology shifts, but rather the likely radical shifts required in hardware, software and basic computing systems properties to pervasively embrace accuracy trade-offs.

Below we provide more-detailed motivation for approximate computing, while the publicly-released slides are available [here](#).

Given the end of Moore's Law performance improvements and imminent end of Dennard scaling, it is imperative to find new ways to improve performance and energy efficiency of computer systems, so as to permit large and more complex problems to be tackled with constrained power envelopes, package sizes, and budgets. One promising approach is approximate computing, which relaxes the traditional digital orientation of precisely stated and verified algorithms reproducibly and correctly executed on hardware, in favor of approximate algorithms that produce "sufficiently" correct answers. The sufficiency criteria can either be a probabilistic one that results are usually correct, or it can be a more complex correctness criteria that the most "significant" bits of an answer are correct.

Approximation introduces another degree of freedom that can be used to improve computer system performance and power efficiency. For example, at one end of the spectrum of possible approximations, one can imagine computers whose circuit implementations employ aggressive voltage and timing optimizations that might introduce occasional non-deterministic errors. At another end of the spectrum,

one can use analog computing techniques in select parts of the computation. One can also imagine entirely new ways of "executing" programs that are inherently approximate, e.g., what if we used neural networks to carry out "general" computations like browsing the web, running simulations, or doing search, sorting, and compression of data? Approximation opportunities go beyond just computation, since we can also imagine ways of storing data approximately that leads to potential retrieval errors, but is much denser, faster and energy efficient. Relaxing data communication is another possibility, since almost all forms of communication (on-chip, off-chip, wireless, etc) use resources to guarantee data integrity, which is often unnecessary from the application point of view.

Obviously approximation is not a new idea, as it has been used in many areas such as lossy compression and numeric computation. However, these applications of the ideas were implemented in specific algorithms, which ran as part of a large system on a conventional processor. Much of the benefit of approximation may accrue from taking a broader systems perspective, for example by relaxing storage requirements for "approximate data". But there has been little contemplation of what an approximate computer system would look like. What happens to the rest of the system when the processor evolves to support approximate computation? What is a programming model for approximate computation? What will programming languages and tools that directly support approximate computation look like? How do we prove approximate programs "correct"? Is there a composability model for approximate computing? How do we debug them? What will the system stack that supports approximate computing look like? How do we handle backward compatibility?

What's Going on at the Computing Community Consortium (CCC)

New Council Members

The CCC Council is comprised of 20 members who have expertise in diverse areas of computing. They are instrumental in leading CCC's visioning programs, which help create and enable visions for future computing research. Members serve staggered three-year terms that rotate every July. The **Computing Research Association**, in consultation with the **National Science Foundation**, has appointed six new members to the **Computing Community Consortium Council**, who began their terms this July 1:

- Lorenzo Alvisi, University of Texas at Austin
- Vasant Honavar, Pennsylvania State University
- Jennifer Rexford, Princeton University
- Debra Richardson, University of California—Irvine
- Klara Nahrstedt, University of Illinois at Urbana-Champaign
- Ben Zorn, Microsoft Research

The CCC, CRA and NSF thank those Council members whose terms ended on June 30 for their exceptional dedication and service to the CCC and to the broader computing research community:

- Edward Lazowska, University of Washington; founding Chair of CCC
- Anita Jones, University of Virginia, founding member of CCC
- Deborah Crawford, Drexel University
- Fred Schneider, Cornell University
- Josep Torrellas, University of Illinois at Urbana-Champaign

With the rotation of new Council members, a new Executive Committee was formed to lead the Council:

- Greg Hager, Johns Hopkins University (Chair)
- Elizabeth Mynatt, Georgia Tech (Vice Chair)
- Liz Bradley, University of Colorado, Boulder

- Mark Hill, University of Wisconsin, Madison
- Bob Sproull, formerly Sun Labs

Aging in Place Workshop

The CCC will hold a workshop on Aging in Place that will bring together needed interdisciplinary expertise, assess the state of the science at the human, medical, and technology levels, and articulate a research vision for a systems engineering approach to the development of technologies and solutions to support the home management of persons with significant chronic diseases and their family care providers. Effective home management of such chronic diseases as dementia, heart failure, hypertension, chronic obstructive airway disease (COPD), and asthma would reduce hospitalizations and other healthcare costs and improve quality of life. Currently, there is a paucity of research in these aging in place technologies (AiPT) from a systems approach that



includes the expertise of both health and computer science. This workshop will discuss challenges and opportunities and provide a research agenda regarding the next steps needed in the development and application of technology to home management of chronic diseases.

The workshop will be held September 10-11 in Bethesda, MD. For more information on this workshop, please visit our [website](#) or contact Ann Drobnis (adrobnis@cra.org).

Uncertainty in Computation Workshop

The CCC will hold a workshop on Uncertainty in Computation to discuss the future research directions related to the modeling of uncertainty in computations and the ways in which the uncertainty inherent in many computational processes can be communicated to those tasked with making decisions based on such data. Uncertainty quantification for computational simulations is a maturing discipline, but little study has yet gone in to the relationship between uncertainty quantification and the communication of uncertainty to decision makers. Data analytics is rapidly becoming far more sophisticated and enjoying widespread use, but is still largely lacking in well principled methods for quantifying uncertainty associated with the

information contained in large data sets. The field of decision science recognizes the importance of understanding decision making under uncertainty, but much of this work is not closely integrated with either formal uncertainty quantification or the explosion of computational uncertainty associated with data analytics.

The workshop will address these issues in two ways. A set of research challenges will be defined that, if solved, will make the computation and utilization of uncertainty more ubiquitous in a variety of computing applications and systems. In addition, joint goals and methods between different disciplines identified to help establish an interdisciplinary agenda for addressing challenges that uncertainty poses. Success in these efforts will accomplish better decision making through a better understanding of uncertainty, better understanding of models and their accuracy by data analysis and simulation scientists, and increased credibility of computational estimates and simulations by the public through better understanding of uncertainty.

The workshop will be held October 15-16 in Washington, DC. For more information on this workshop, please visit our [website](#) or contact Ann Drobnis (adrobnis@cra.org).

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Helen Vasaly, Program Associate, Computing
Community Consortium
Heather Wright, Research Associate, Center for Evaluating
the Research Pipeline

Column Editor

Expanding the Pipeline
Patty Lopez, Intel

Professional Opportunities

Arizona State University (ASU)

*School of Computing, Informatics, and
Decision Systems Engineering*

*Computer Science and Engineering Lecturer
(Job #10752)*

The School of Computing, Informatics, and Decision Systems Engineering (SCIDSE) in the Ira A. Fulton Schools of Engineering at Arizona State University (ASU) seeks applicants for a full time lecturer position beginning August 2014. This is a non-tenure track appointment with a fixed term academic year contract.

A minimum of a M.S. in Computer Science, Computer Engineering or a related discipline and teaching experience in an undergraduate engineering program is required.

The successful candidate for this position will have a demonstrated record of excellence in teaching that incorporates active learning, an extensive knowledge of software engineering, programming languages, information assurance, or computer systems and networks.

Preference will be given to those candidates with a Ph.D. or near completion Ph.D. with proven teaching skills in undergraduate education. Professional experience in the areas of software application and systems development and a commitment to work collaboratively with a diverse student population is also desirable.

Current information regarding this position and instructions for applying are available at <http://engineering.asu.edu/hiring> Review of applications will begin on July 15, 2014; if not filled, reviews will occur on the 1st and 15th each month thereafter until the search is closed.

Arizona State University is an equal opportunity/affirmative action employee. Women and minorities are encouraged to apply. See ASU's full non-discrimination statement (ACD 401) at: <https://www.asu.edu/aad/manuals/acd/acd401.html> and the

Title IX statement at <https://www.asu.edu/titleIX/>.

Bryan Research & Engineering, Inc.

Software Engineer

BR&E is a privately-owned provider of process simulation software and engineering solutions to the gas processing, refining, and chemical industries. Since the company's inception in 1974, BR&E has combined research and development in process simulation with state-of-the-art computerized engineering technology to provide our clients with flexible, accurate, efficient and dependable tools that improve their operations.

EDUCATION REQUIREMENTS:

- M.S. or Ph.D. in Computer Science, Software Engineering or Computer Engineering

RESPONSIBILITIES:

- Participate in design, development and maintenance of BR&E simulation software
- Draft and review technical documentation

REQUIREMENTS:

- Background in numerical simulation related to engineering applications
- Familiarity with development tools and methodologies for the Microsoft platforms including development of native Windows desktop applications with emphasis in Visual C++
- Background in vectorization and parallel processing on Microsoft platforms
- Strong English language verbal/written communication skills, interpersonal skills

Please email cover letter and resume to careers@bre.com

3131 Briarcrest Dr., Ste. 200
Bryan TX 77802
(979) 776-5220
www.bre.com

FSU Panama City

*Full Time Faculty Position in Computer
Science -Position Number 00081373*

The Department of Computer Science at Florida State University invites applications for a faculty position at the Panama City Campus. This is a 12-month, non-tenure track position with responsibilities in teaching, advising, and student recruiting. Instructional duties involve both on-campus and online classes. The position begins fall 2014 and is renewable on an annual basis. The holder of the position will be a member of the Department of Computer Science.

Required Qualifications: Ph.D. in Computer Science and at least two years of college teaching experience; capability to teach ABET accredited core curriculum in Computer Science. Candidates with an otherwise exceptional record who are near completion of the PhD will be considered contingent on completing the PhD within one year.

Salary will be commensurate with experience and qualifications.

The Florida State University at Panama City is located 100 miles west of Tallahassee on beautiful North Bay.

Please apply online with curriculum vitae, statements of teaching and research philosophy, and the names of three references at http://www.cs.fsu.edu/positions_pc

Questions can be e-mailed to Prof. Chris Lacher, Search Committee Chair, clacher@pc.fsu.edu.

Screening will begin July 1 and continue until position is filled. Florida State University is an Equal Opportunity/Affirmative Action Employer.



TEL: 650 842 4800

FAX: 650 842 4880

FX Palo Alto Laboratory
3174 Porter Drive
Palo Alto, CA 94304

Research Opportunities at FXPAL

FX Palo Alto Laboratory (FXPAL) is seeking talented research scientists to join our lab as regular or visiting scientists (e.g. post doc or faculty sabbatical). FXPAL's research spans multimedia, information access, smart spaces, and remote collaboration. The following research areas are of particular interest, although we will consider exceptional candidates in other related areas.

Interactive Systems and Interfaces

We seek a researcher with expertise in the area of interactive systems and interfaces primarily in the application areas of smart environments and multimedia applications. Candidate should have expertise in multimedia systems, ubiquitous computing, sensor systems, and/or human-computer interface technologies. Ideal candidates will have prior experience working on smart spaces, and/or multimedia applications. The ability to build prototypes of novel systems and applications is required.

Communication and Collaboration Systems

We seek a researcher that is passionate about technologies that provide rich collaborative experiences for end users. Expertise from a broad range of backgrounds will be considered, including: human-computer interaction (HCI), technical aspects of computer-supported cooperative work (CSCW), and multimedia communication systems. A must for all candidates is a strong interest and demonstrated strength in building systems as part of a team.

Multimedia Data Mining

We seek a researcher with interest in mining social, educational, and enterprise multimedia data. The candidate should have expertise and experience in areas such as: analysis of multimedia for meta-data creation, machine learning applied to data mining tasks, social network analysis, and development of novel visualizations and interactions for extracting knowledge from analysis results. Our focus is on mining different types of media, including images, text, video and audio. The candidate should also be fluent with tools supporting the collection, organization and processing of large data sets.

Multimedia Applications

We seek a researcher to work in the area of interactive multimedia applications for educational, enterprise, and social media. The focus is on applications that integrate advanced content-based analysis and powerful user interface design for exploration, consumption, retrieval, and management of multimedia data collections. Techniques include hypermedia and cross media linking to provide related information. Candidates should be motivated to collaborate on projects in any of the areas of content-based analysis, user interface design, and statistical analysis of multimedia and multi-modal information.

Requirements: Candidates should be interested in working on practical applications in a collaborative setting. These positions require a Ph.D. in Computer Science or related field and strong development skills.

Please email your resume to: fxpalresumes@fxpal.com. Please specify if your interest is in a post doc or sabbatical. FXPAL is an equal opportunity employer and values diversity in the workplace.

Professional Opportunities

Florida State University

Non-Tenure-Track Teaching Faculty Position

The Department of Computer Science (CS) at the Florida State University invites applications for a non-tenure-track Teaching Faculty position to begin Fall 2014. This is a full-time, 12-month, salaried position with benefits. Applicants should hold a graduate degree in Computer Science or in a related field, and have teaching experience.

FSU is classified as a Carnegie Research I university. CS offers BS (ABET accredited), MS and PhD degrees. Further information can be found at: <http://www.cs.fsu.edu>

Apply online with curriculum vitae, statements of teaching philosophy, and the names of at least three references at: <http://www.cs.fsu.edu/positions/apply.html>

Questions can be e-mailed to Prof. Robert van Engelen, Department Chair, chair@cs.fsu.edu.

Equal Employment Opportunity

An Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employer.

FSU's Equal Opportunity Statement can be viewed at: http://www.hr.fsu.edu/PDF/Publications/diversity/EEO_Statement.pdf

The Henry M. Jackson Foundation (HJF)

Junior and Senior Scientists

The Henry M. Jackson Foundation (HJF) is looking for junior and senior scientists to join the U.S. Army Medical Research and Materiel Command's Biotechnology High Performance Computing Software Applications Institute (BHSI) [www.BHSI.org]. HJF provides scientific, technical, and programmatic support services to the BHSI.

This opening is for dynamic scientists interested in working in an interdisciplinary environment focused on the development and the application of computational solutions to biomedical problems, involving



JOHNS HOPKINS
UNIVERSITY

ASSOCIATE DEAN FOR RESEARCH

Whiting School of Engineering

The Whiting School of Engineering (WSE) at The Johns Hopkins University is searching for their next Associate Dean for Research. This position will provide strategic leadership, direction, and support for all activities related to research initiatives in the Whiting School of Engineering. Working across multiple research centers and laboratories, the Associate Dean for Research (ADR) will collaborate with Whiting's esteemed faculty to build partnerships both externally and across the university.

For the past 33 years, Johns Hopkins has been ranked by the NSF as number one in terms of annual research expenditures. In the past five years, research awards and expenditures have grown from \$1.8 billion to \$2.51 billion. The University serves as the home for approximately 200 research centers and, over the past decade, has experienced an incredibly positive trajectory of increased academic excellence.

The Whiting School, with its 125 tenured and tenure-track faculty members, is ranked first in the country in Biomedical Engineering by *U.S. News & World Report*. It is ranked 8th in Environmental and Environmental Health Engineering, and top-ranked in Chemical, Civil, Materials, and Mechanical Engineering. The WSE is responsible for 20 percent of the university's total invention disclosures, although the school accounts for fewer than 2 percent of the total tenured faculty. The Whiting School seeks an Associate Dean for Research who understands the multiplicity of the work taking place here, and will connect the WSE to new opportunities for funding and commercial development.

With oversight of all of WSE research centers and institutes, as well as the activities of the Director and staff of the Office of Intellectual Property and Technology Commercialization, the next ADR will have the opportunity to match the work of the Whiting School's esteemed faculty with opportunities in industry, government, and across university disciplines. The strength of Johns Hopkins' School of Medicine and the Johns Hopkins Applied Physics Laboratory (APL) provides numerous possibilities for collaboration and invention, while the university's location provides ready access to partnerships and opportunities with the federal government. The ADR is expected to deepen current relationships as well as forge new partnerships and initiatives.

All confidential applications, inquiries, and nominations should be sent electronically to www.imsearch.com/5068, to the attention of Stephanie Fidel and Matthew Tzucker, at the search firm of Isaacson, Miller.

The Johns Hopkins University is an equal opportunity/affirmative action employer committed to recruiting, supporting, and fostering a diverse community of outstanding faculty, staff, and students.



ISAACSON, MILLER

Professional Opportunities

signal processing of time series physiological data, data mining, data-driven and physiological-based models, and artificial intelligence. The candidate should have a Ph.D. in a related discipline and a strong publication record. The candidate is expected to simultaneously work on multiple projects, involving a diverse and interdisciplinary team of scientists across multiple laboratories.

Foreign nationals are welcome to apply. U.S. citizenship or permanent resident status is not required. This position is located in Frederick, Maryland.

Please apply on-line at www.hjf.org/careers. Click "Advanced Search" and enter job number **208839** in the Job Opening ID box.

The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (HJF) is a congressionally authorized, not-for-profit corporation that provides unparalleled scientific and management services to military medical research and education programs worldwide. Our mission is to advance military medical research. AA/EEO

The Henry M. Jackson Foundation

Research Scientist

The Henry M. Jackson Foundation for the Advancement of Military Medicine Inc. (HJF) is seeking a Research Scientist I-207965 & II-208839 (Physiological Data Modeling) to join the U.S. Army Medical Research and Materiel Command's Biotechnology High Performance Computing Software Applications Institute (BHSOI) [www.BHSOI.org]. HJF provides scientific, technical, and programmatic support services to the BHSOI.

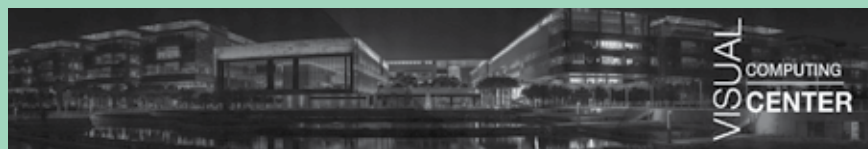
Minimum Education/Training Requirements: Ph.D. in a related discipline, post-graduate experience, and a strong publication record.
Minimum Experience: 2 to 4 years' experience

Please apply on-line at <http://www.hjf.org/careers>. Click "Advanced Search" and enter job number 207965 for I or 208839 for II in the Job Opening ID box. OR fax your resume to 240-694-3151. Please specify title and job number on fax.

Any qualifications to be considered as equivalents, in lieu of stated minimums,

require the prior approval of the Vice President of Human Resources.

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



KAUST (King Abdullah University of Science and Technology)

Postdoctoral Fellow Positions in Scientific Visualization

Competitive Tax-free Salary

King Abdullah University of Science and Technology (KAUST) is an international graduate research university in Saudi Arabia located on the shores of the Red Sea. The University is dedicated to advancing science and technology through interdisciplinary research, education, and innovation to address the world's pressing scientific and technological challenges related to water, food, energy, and the environment.

For more information about life and employment at KAUST please visit our employment Website: <http://www.kaust.edu.sa/employment/employment.html>

KAUST's Visual Computing Center (VCC) is dedicated to leading edge research in Visual Computing, Mathematics, Geometry, Computer Vision, Computer Graphics, Image Processing, Computational Geometry and Scientific Visualization.

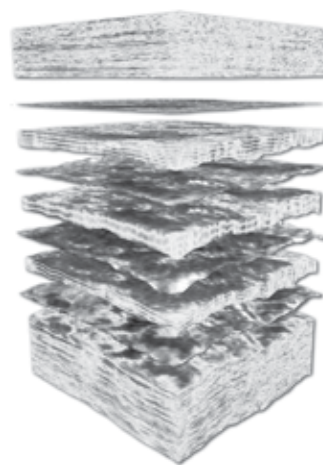
Make a difference! Join VCC's research staff to work on unique projects in an outstanding research environment. Put your expertise to practice and push the limits in your field - apply for VCC's open positions for Postdoctoral Fellow in Scientific Visualization.

VCC is looking for suitable candidates with a PhD degree in Computer Science and have a strong publication record in one of the fields of Visual Computing. Very good programming skills are required.

To obtain further information or apply, contact us via email: peter.rautek@kaust.edu.sa

Please include a resume and/or a full CV including a publication list.

For more information about VCC visit: <http://vcc.kaust.edu.sa/>



Professional Opportunities

KAIST (Korea Advanced Institute of Science & Technology)

Computer Science Department

Tenure-Track Faculty Position

The Department of Computer Science at KAIST (Korea Advanced Institute of Science & Technology) seeks outstanding tenure-track faculty in all areas of computer

science at the assistant professor level. Exceptional candidates at the associate and full professor levels will also be considered. Applicants must demonstrate superior research and scholarship potential as well as teaching ability. A PhD in Computer Science or a related area is required. Candidates should expect to receive their PhDs at least before their official appointment, if not by the

time of application. Successful candidates are expected to pursue an active research program and contribute significantly to the teaching programs of the department. We accept applications all year round, but will strive to expedite the processing of applications that reach us either by 15th August or by 15th February.

Electronic applications, including a curriculum vita with contact information for three references, a research statement, and a teaching statement with a cover letter, should be submitted online at: <http://cs.kaist.ac.kr/facultysearch>

Questions should be directed to facultysearch@cs.kaist.ac.kr

Lyric Labs

Machine Learning Lead Software Engineer

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

We are looking for a talented and passionate person to lead a team developing the next-generation of probabilistic programming software and algorithms. In this role you'll have an opportunity to help set the direction in the field of probabilistic programming, to collaborate with world-class researchers



Tenure-track or Tenure Faculty Position in Computer Engineering/Computer Science

The School of Computer Engineering (SCE) at the Nanyang Technological University (NTU), Singapore, invites qualified academics to apply for a number of tenure-track or tenure faculty positions as Full Professor, Associate Professor or Assistant Professor in Computer Engineering and Computer Science.

Candidates must possess a PhD in Computer Engineering, Computer Science, or related disciplines. The School seeks individuals with exceptional promise for, or a proven record of, research achievement who will excel in teaching undergraduate and graduate courses, while assuming a position of international standing in their field of research. Candidates must have vision and an interest in defining (a) the research frontier as well as (b) the education of next-generation leaders in this rapidly evolving field. Candidates should also demonstrate the ability to combine theoretical knowledge with practical development of computational solutions and systems within one of the following, or closely related areas:

Digital Systems: Custom computing architectures, reconfigurable computing, system-on-chip, multi/many-core processors, electronic design automation for architecture-aware synthesis.

Cyber-Physical Systems and Security: Networked embedded systems, robust and safety-critical systems, embedded software, reliability-aware design and fault tolerance, information security, hardware/software security, cyber security, system dependability, system vulnerability analysis.

Visual and Interactive Computing: New user interface, brain-based interaction, human-centric computing, data visualization, video analytics, game-based learning and gamification.

Modelling and Computer Simulation: Agent-based modelling and simulation, data-driven simulation, multi-model/multi-scale simulation with applications in medicine & healthcare, transportation and logistics, homeland security and military defense, natural environmental changes, virtual environments, cyber warfare and complex systems.

Software & Information Systems: Complex software engineering and security, human-centric software engineering, software testing and performance evaluation, agile software development methodologies, medical informatics, big-data analytics and data science.

The School of Computer Engineering has undergone a major curriculum revision and realignment of research areas, and is supported by modern teaching and research facilities. In line with University's vision, the School has identified Medical Informatics and Systems; Secure and Pervasive Cyberspace for Virtual Living; and Sustainability Informatics and Systems to be its strategic research thrusts. Successful applicants will find NTU to be a stimulating environment conducive to professional growth and interdisciplinary collaborative research.

The University offers competitive remuneration package commensurate with qualifications and experience, and comprehensive benefits. For further information about the School of Computer Engineering, please refer to <http://sce.ntu.edu.sg/Pages/Home.aspx>.

To apply, please refer to the Guidelines for Submitting an Application for Faculty Appointment (<http://www.ntu.edu.sg/ohr/CareerOpportunities/SubmitanApplication/Pages/FacultyPositions.aspx>) and send your application to SCEHR@ntu.edu.sg. Electronic applications are preferred.

Review of applications will commence immediately. As such, applicants are strongly encouraged to apply early. Applicants must state which of the aforementioned areas they are applying for when submitting their applications. Only shortlisted candidates will be notified.

Closing Date: 15 August 2014

www.ntu.edu.sg

Professional Opportunities

in the field, to advance the state of the art in probabilistic programming and Bayesian inference, and to publish and present your results to the academic community. You'll help build a user community, and find new applications and new ways to apply these tools to the real world. And you'll be hands on in creating cutting-edge open-source software.

Required skills include:

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

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

Preferred:

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

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



Portland State University Electrical & Computer Engineering

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

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

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

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

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

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

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

Professional Opportunities

Santa Clara University

Computer Engineering Department

Assistant Professor

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

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

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

SCU maintains small class sizes and promotes close faculty/student interaction. The University enrollment is approximately 5,500 undergraduate and 3,700 graduate

students. The Department (<http://www.scu.edu/engineering/cse/>) offers B.S., M.S. and Ph.D. degrees, with 14 full-time faculty, and a strong pool of approximately 30 part-time adjunct faculty who instruct over 200 undergraduate majors, and about 350 part-time and full-time graduate students. The School of Engineering maintains strong ties to local industry.

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

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



www.uidaho.edu

University of Idaho NOW HIRING: REGULAR FACULTY

Posting Number: F000027P	Rank: Assistant Professor
Location: Idaho Falls	Position Type: Permanent
Division/College: College of Engineering	Pay Range: \$85,000 - \$95,000
Department: Computer Science	Full Time/Part Time: Full Time
Tenure Tracking: Track Rank	Hours: 70 - 80 Hours/Bi-Weekly
Posting Date: 06/13/2014	Open Until Filled: Yes

QUALIFICATIONS

Minimum Qualifications

- US Citizenship is required for this position.
- An earned Ph.D. degree in Computer Science.
- Demonstrated success in research publications and presentations in computer security with a preferred emphasis in cyber security for control systems.

Preferred Qualifications

- Excellent written and oral communications skills.
- Leadership experience or evidence of ability to lead a research team.
- Experience collaborating with industry on research and/or technology transfer.
- Demonstrated ability to work in a team to achieve project goals.
- Commitment to working collaboratively with a network of faculty, institutions and industry involved in CSDS and the IGEM program.
- Experience in college-level teaching, mentoring and research consistent with appointment to the rank of Assistant Professor

Special Instructions to Applicants: This position is open until filled. This is a U.S. Citizen only position. Review of applications will begin July 21, 2014 and remain open until filled.

Please electronically submit copies of two research papers, one under "other documents 1" and the second paper under "Other documents 2".

Background Check Statement: Applicants who are selected as final possible candidates must be able to pass a criminal background check.

For more information and to apply, please visit: <http://apptkr.com/485808>

EEO Statement: The University of Idaho is an equal opportunity and affirmative action employer. It is the policy of the regents that equal opportunity be afforded in education and employment to qualified persons regardless of race, color, national origin, religion, sex, age, disability, or status as a disabled veteran or Vietnam-era veteran. It is also the policy of the University of Idaho to not discriminate based on sexual orientation.

Professional Opportunities

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

EEO / AA Policy:

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

Symantec Corporation

Symantec Research Labs

Principal Research Engineer

Symantec Research Labs is a global organization (US and Europe) offering the opportunity to work with a team of talented, experienced researchers. We are currently looking for passionate, exceptional researchers to fill numerous positions globally. Current openings are in the areas of security, cloud computing, virtualization, storage, SDN/network security and management, machine learning, Big Data analytics, natural language processing, information management and database platforms, algorithms, cryptography, mobile/embedded/IoT computing, systems engineering, distributed systems, software security, and adjacent fields. Team members are encouraged to propose and work on bold new ideas, conduct independent research, produce working prototypes, and publish their work at premiere venues.

PhD in computer science or related field strongly preferred. M.Sc. candidates with extensive experience will be considered.

Please contact Research_Labs@symantec.com

Symantec is an equal opportunity employer. All candidates for employment will be considered without regard to race, color, religion, sex, national origin, physical or mental disability, veteran status, or any other basis protected by applicable federal, state or local law.

University of Arizona

School of Information: Science, Technology, and Arts

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

University of Arizona seeks one or more postdoctoral researchers in each of machine learning and natural language processing (or

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

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

University of Miami, Coral Gables, Florida

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



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

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

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

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

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

Professional Opportunities

Duties and Responsibilities

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

Qualifications

A PhD in computer science or closely related field. Ideal candidates will have strong backgrounds in either modern statistical and machine learning techniques (e.g., graphical models) or natural language processing, with information extraction expertise being particularly attractive. Candidates should also should have an interest in building and evaluating moderately complex, large-scale, multi-investigator systems.

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

University of Florida

Post-doc and Ph.D Positions

The University of Florida BICI2 lab (<http://www.uky.edu/~lya227/>) is recruiting outstanding candidates for fully funded Post-doc positions and multiple Ph. D positions in biomedical image analysis, computer vision, and machine learning.

For Ph. D students you need to pass all the University of Florida admission requirements.

Please send email to linyang711@gmail.com if you are interested.

University of Louisiana at Lafayette

School of Computing and Informatics

Visiting Assistant Professor Position

Visiting Assistant Professor position for academic year 2014-15 in area of computer software systems (including OS, Compilers, Cloud computing, and Bigdata). With teaching load of one course per semester, hired

individual will be considered for regular tenure-track faculty position for Fall 2015 (pending approval).

Application screening begins immediately. Applicant should send complete curriculum vitae, short statements of research and teaching goals, and contacts of three references electronically to Professor Hongyi Wu (jobs@cacs.louisiana.edu).

University of Missouri-St. Louis

Department of Mathematics and Computer Science

Computer Science NTT Teaching Assistant Professor Position

The Department of Mathematics and Computer Science at UMSL invites applications for a full time NTT teaching position in Computer Science to begin Fall 2014. A minimum of master's degree in computer science or a closely related area is required.

For more details, please visit our [HR webpage](#). Job ID # 13496.

University of Utah

Tenure-Track or Tenured Faculty Position in Visualization

The University of Utah's School of Computing is seeking to hire an outstanding tenure-track or tenured faculty member in visualization. While we will consider all areas of visualization, we are particularly interested in candidates with expertise and an excellent research record in information visualization and visual analysis. These interest areas reflect our strong research reputation in scientific and biomedical visualization, image analysis, and interdisciplinary scientific computing within the Scientific Computing and Imaging (SCI) Institute.

Applicants should have earned a Ph.D. in Computer Science or a closely related field.

The University of Utah is located in Salt Lake City, the hub of a large metropolitan area with excellent cultural facilities and unsurpassed opportunities for outdoor recreation only a few minutes drive away. More information about Salt Lake City and Utah can be found at <http://diversity.utah.edu/faculty>. Additional information about the school and our current faculty can be found at www.cs.utah.edu. Please send curriculum vitae, a research goals statement, a teaching goals statement, and names and addresses of at least three references.

The application dateline is November 1, 2014 and applications will be reviewed when received.

Please go to the following link to apply - <https://utah.peopleadmin.com/postings/32397>

The University of Utah is fully committed to affirmative action and to its policies of nondiscrimination and equal opportunity in all programs, activities, and employment. Employment decisions are made without regard to race, color, national origin, sex, age, status as a person with a disability, religion, sexual orientation, gender identity or expression, and status as a protected veteran. The University seeks to provide equal access for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Evidence of practices not consistent with these policies should be reported to: Director, Office of Equal Opportunity and Affirmative Action, (801) 581-8365 (V/TDD).

The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and possess a strong commitment to improving access to higher education for historically underrepresented students.

Professional Opportunities

University of Washington

Faculty Lecturer Positions (Non-Tenure Track)

The University of Washington Information School is seeking three creative individuals to teach in the areas of Information Management; Information Assurance and Cybersecurity; and Mobile, Web, or Design. iSchool lecturers focus on teaching, pedagogy, working with diverse populations, and bringing professional experience into the classroom to create exceptional learning opportunities.

Our new colleague will join a broad-based, inclusive Information School with multiple degree programs committed to the values of leadership, innovation, and diversity. University of Washington faculty engage in teaching, research and service. These are 9-month full time appointments with faculty voting rights anticipated at the rank of Lecturer full time or Senior Lecturer full time, commensurate with qualifications and experience.

The University of Washington is an affirmative action, equal opportunity employer. The University is building a culturally diverse faculty and staff and strongly encourages applications from women, minorities, individuals with disabilities and covered veterans.

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

Wheaton College (IL)

Math/Computer Science Department

Assistant or Associate Professor of Computer Science

Computer Science: Wheaton College is seeking applicants for an anticipated position in computer science at the assistant or associate professor rank. It is anticipated that the faculty member will have Ph.D. and teach in a variety of specialties. Special consideration will be given to candidates who can teach a project-based software development course and courses that support computational science across the College's Division of Natural Sciences. Excellent teaching and a research trajectory are

expectations for faculty at Wheaton College, a highly selective Christian liberal arts College in the broad evangelical tradition whose faculty affirms a Statement of Faith and adhere to lifestyle expectations. Eligible candidates will be sent a formal application materials and instructions. Review of completed applications begins Nov. 1, 2014. Wheaton College is located in the western suburbs of Chicago and the College complies with federal and state guidelines for non-discrimination in employment. Women and minority candidates for this position are welcomed.

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