



CRA

Computing Research
Association

Computing Research News

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

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New Leadership at the Computing Research Association (CRA)

By Susan Davidson, CRA Board Chair, University of Pennsylvania



As I step up as Chair of the [CRA Board of Directors](#), I'd like to share my thoughts about the organization, what it is doing, and what our next steps will be.

Prior to joining the Board, my understanding of what CRA did for the computing research community was limited to what affected me most as department chair: its biennial [conference at](#)

[Snowbird](#) for computing leadership, the

[Taulbee Survey](#), several influential [best practices papers](#) related to promotion and tenure, and an outlet for faculty ads. Over the years, I have learned that this is just the tip of the proverbial iceberg, and my admiration for what the organization does has only grown.

For example, advocacy for computing research has now become the envy of many other fields through the work of CRA's [Government Affairs Committee](#). Consider:

- ▶ [Congressional Visit Days](#), when colleagues from our community meet with members of Congress and their staff to advocate for computing research
- ▶ [Leadership in Science Policy Institute](#) (LISPI), which educates computing researchers on how science policy in the U.S. is formulated and how our government works
- ▶ [Policy Blog](#), which keeps us up-to-date with what's happening in Washington, D.C.

Other projects react to needs in the field. For example, responding to employment issues resulting from the economic downturn in 2008, the [Computing Innovation Fellows \(CIFellows\) Project](#) created NSF-funded postdoc opportunities for graduating PhDs. More recently, in response to concern about the increasing emphasis on quantity over quality in the current publication culture, a Committee on Best Practices

for Hiring, Promotion, and Scholarship conducted interviews with more than 75 academic and industry computing and information unit heads to gain insights from practice, and advocated adjustments to hiring, promotion, and tenure practices, as well as to the publication culture through a [Best Practice Memo](#).

Many of these activities occur via or in conjunction with CRA's standing subcommittees, for example:

- ▶ [Computing Community Consortium](#) (CCC), whose visioning exercises have brought together scientists to formulate new research questions and problems of impact to society. CCC also led the CI-Fellows project, and enables funding for LISPI
- ▶ [Committee on the Status of Women in Computing Research](#) (CRA-W), whose advocacy and promotion of women have resulted in effective programs such as the [Grad Cohort Workshop](#) and [Career Mentoring Workshops](#)
- ▶ [CRA Education Committee](#) (CRA-E), whose emphasis on education has resulted in [sessions on engaging undergraduates in research](#) at various conferences, and provided resources for faculty and students on the [Conquer](#) website
- ▶ [Center for Evaluating the Research Pipeline](#) (CERP), whose emphasis on comparative evaluation has resulted in various studies that analyze the impact of diversity programs. Reports have been produced on [career mentoring workshops](#), [research experiences for undergraduates](#), and the [CIFellows project](#)

So, what's next? There are several topics we are considering that the community has expressed interest in:

- ▶ **Booming enrollments:** How are growing enrollments affecting institutions, and what are they doing about it? How are they affecting students, and in particular diversity numbers?

- ▶ Data science: Many institutions are wrestling with the role that computer science should play in this new interdisciplinary field—whether to lead, what curricula to create, how to incorporate data science into existing programs. What are institutions across the country doing? What will the landscape look like in 15 years, and how should we prepare for it?
- ▶ Connections to industry: How can CRA better engage industry for the benefit of the research community?

As we move forward with these issues, we'd love to get your [feedback](#) – and hear about other issues you believe

that CRA should address. Feel free to contact me, Vice Chair Susanne Hambrusch, or any of the other CRA Board members, to share your thoughts, volunteer to serve on one of the subcommittees, or express interest in running for the Board of Directors.

I'd like to thank our [member organizations](#) for their continued support, and you as a reader for your interest. Be sure to share the link to CRA's new and improved website – [CRA.org](#) – to let others in your organization know about what CRA is doing!



CRA

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CRA Introduces Revamped Website: Check Out the New CRA.org

If you have visited the CRA website lately, you may have noticed that it's been refreshed with a new look and feel. The new website presents a more consistent visual identity for CRA and provides a seamless experience for a visitor viewing each of the committee sites, in addition to CRA.

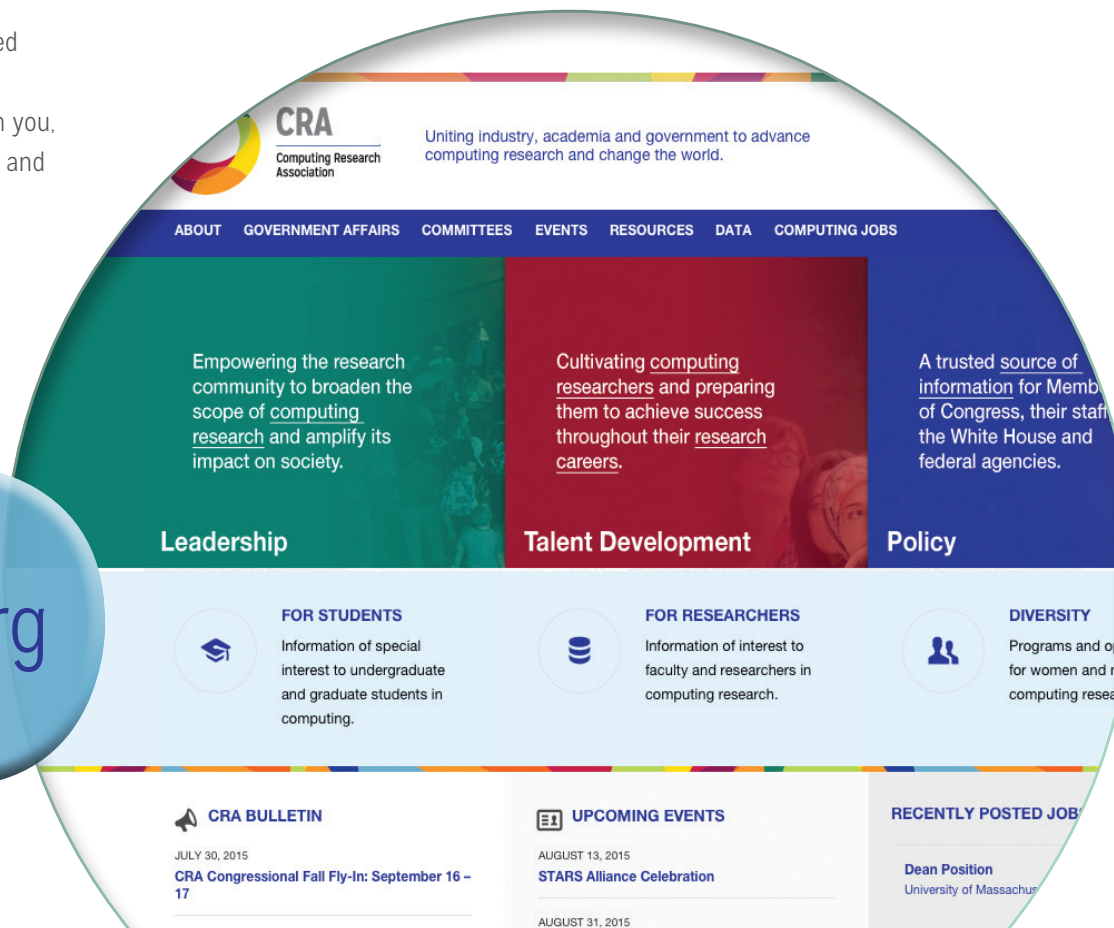
The previous website was designed in 2008, and since then additional Web 2.0 features have appeared. Our new website has been designed with cutting-edge features and functionality, while engaging users with pertinent and timely information. The new site structure gives users easier access to information, and our news blog, [the CRA Bulletin](#), is one of the new resources available on the site. The site was built with a responsive design approach, so it will be easy to view on a multitude of devices. During the next few months, we'll be revealing more new features and content, so visit often!

New features include:

- ▶ Responsive design for mobile devices and tablets
- ▶ Consistent look and feel, as well as information architecture for committee sites
- ▶ Additional search features for the computing jobs section
- ▶ Improved Computing Research News interface
- ▶ A new blog, CRA Bulletin, is introduced. Click [here](#) to subscribe.

We hope you enjoy our refreshed look and new features. We are excited to share this news with you, and thank you for your interest and participation in CRA.

cra.org



CCC-Led White Papers on the Science of Autonomy

From the CCC Blog



In May, the **Computing Community Consortium (CCC)** commissioned members of the research community to generate white papers to help guide strategic thinking in autonomous systems in a number of different domain specific areas, including **Aerial Earth Science, Construction, Defense, Disaster Management, Healthcare, Paths Towards Autonomy, Service Robots, and Transportation Systems.**

The CCC has released eight white papers.

The **Toward a Science of Autonomy for Physical Systems** white paper frames both the opportunities and challenges posed by autonomous physical systems in general.

We contend that, in most cases, the potential human and economic toll of not exploring and understanding automation science in a timely and thoughtful manner far outweighs the costs or risks. The associated papers in this series amplify these themes by exploring domains where future advances in the science of autonomy intersects opportunities to advance our collective good.

Aerial Earth Science

Unmanned Aerial Vehicles (UAVs) equipped with LiDAR, electro-optical and infrared cameras, SAR and atmospheric sensors have transformed the way we acquire high spatio-temporal resolution data. Coupled with satellite imaging, unmanned and autonomous aerial vehicles are poised to transform how we monitor the millions of physical, chemical, and biological processes on planet Earth.

Construction

Today, ensuring and improving safety, productivity, quality, and sustainability in construction, operation,

and maintenance of national civil infrastructure systems through advances in robotics and automation is a national imperative. By “national civil infrastructure” we refer to the 4.5M commercial buildings, 3.9M miles of public roads, 2M miles of oil and natural gas pipelines, 600K bridges, 190K cell phone towers, 120K miles of major railroads, 100K miles of levees, 84K dams, 50K miles of electrical power lines, 25K miles of commercially navigable waterways, and 5K public-use airports in the United States, all of which are critical to our national economy and society. In the following, we discuss the current state of construction and operation of the national civil infrastructure systems in detail and present several opportunities for improvements through research and education on robotics and automation.

Defense

Militaries around the world have long been cognizant of the potential benefits associated with autonomous systems both in the conduct of warfare and in its prevention. This has led to the declaration by some that this technology will lead to a fundamental change in the ways in which war is conducted, i.e., a revolution in military affairs (RMAs) not unlike gunpowder, the long bow, the rifled bullet, the aircraft carrier, etc.

Disaster Management

A Science of Autonomy is critically needed because it would enable computational agents that can manage the extreme scales and mine for hidden dependencies, threats, and opportunities in order to assist the accountable parties. Autonomous agents do not tire or become distracted by the emotional nature of large-scale disasters. Agents can work fully autonomously, exploring areas otherwise inaccessible to humans, and can provide a semi-autonomous triage function either in situ or via teleoperation, filtering 90%-99% of

situations that are not worthy of human attention and intervention, and directing human resources to the requisite critical locations.

Healthcare

While we're happy to entertain the idea that autonomous systems will grow our food, build our buildings, and drive us to work, somehow the idea that autonomous physical agents may one day provide key healthcare services seems harder to envision or accept. One might argue that it is our relative unfamiliarity with healthcare that creates this feeling. We drive our car every day and have an understanding of how cars work, but we never take out an appendix. Perhaps the realities of medical interventions are just too far from our experience to understand how autonomous robotic systems might enhance our healthcare.

Paths Towards Autonomy

An Autonomous Physical System (APS) will be expected to reliably and independently evaluate, execute, and achieve goals while respecting surrounding rules, laws, or conventions. In doing so, an APS must rely on a broad spectrum of dynamic, complex, and often imprecise information about its surroundings, the task it is to perform, and its own sensors and actuators. For example, cleaning in a home or commercial setting requires the ability to perceive, grasp, and manipulate many physical objects; the ability to reliably perform a variety of subtasks such as washing, folding, and stacking; and knowledge about local conventions such as how objects are classified and where they should be stored. The information required for reliable autonomous operation may come from external sources and from the robot's own sensor observations or in the form of direct instruction by a trainer.

Service Robots

A recent study by the Robotic Industries Association has highlighted how service robots are increasingly broadening our horizons beyond the factory floor. From robotic vacuums, bomb retrievers, exoskeletons and

drones, to robots used in surgery, space exploration, agriculture, home assistance, and construction, service robots are building a formidable resume. In just the last few years we have seen service robots deliver room service meals, assist shoppers in finding items in a large home improvement store, check in customers and store their luggage at hotels, and pour drinks on cruise ships. Personal robots are here to educate, assist, and entertain at home. These domestic robots can perform daily chores, assist people with disabilities, and serve as companions or pets for entertainment. By all accounts, the growth potential for service robotics is quite large.

Transportation Systems

Transportation systems are currently being transformed by advances in information and communication technologies. The development of autonomous transportation holds the promise of providing revolutionary improvements in speed, efficiency, safety, and reliability along with concomitant benefits for our society and economy. It is anticipated these changes will soon affect household activity patterns, public safety, supply chains and logistics, manufacturing, and overall quality of life.

To see all of these white papers, please refer to the [CCC-led White Papers page](#) on the [CCC website](#).



Announcements

CRA and CCC Welcome Khari Douglas

In July, CRA welcomed a new staff member to the Computing Community Consortium. As a Program Associate at CRA, Khari Douglas interacts with members of the research community and policy makers to organize meetings, workshops, and outreach activities.

Khari is a recent graduate of Johns Hopkins University with majors in international studies and economics. Khari is focused on building his professional career and learning more about policy making and computer science.



CERP

Computing Research Association
Evaluation

Farewell to Ama Nyame-Mensah

By Jane Stout, CERP Director



Ama Nyame-Mensah, former CERP Research Associate, has left the CRA to pursue a Ph.D. program in social welfare at the University of Pennsylvania. While working at CERP, Ama focused on understanding the benefits of research experiences for undergraduates (REUs) on academic and professional aspirations among students of racial/ethnic minority. Ama also helped streamline the department reporting initiative for the Data Buddies Project. The CRA will miss Ama's attention to detail and technical prowess. We wish her well as she continues along her career path.

2015 Class of Eben Tisdale Public Policy Fellows



On July 1, the CRA government affairs office welcomed the 2015 class of **Eben Tisdale Public Policy Fellows** to CRA headquarters in Washington, D.C. These fellows – undergraduates at universities and colleges from across the United States – spent the summer learning the intricacies of technology

policy at high-tech companies, firms, or trade associations in Washington, D.C. In addition, they took two class credits at George Mason University and attended briefings at institutions such as the U.S. Capitol, Department of State, World Bank, and Federal Reserve. At CRA, the fellows attended a presentation by Peter Harsha, Director of Government Affairs, that covered the policy concerns and issues that the association works on and attempts to influence at the federal level.

This year's Tisdale Fellow for CRA is Kayla Holston (far left). Kayla is a rising second-year Rodman Scholar at the University of Virginia, pursuing majors in biomedical engineering and cognitive science. She's particularly interested in computing as it relates to neuroscience research, and plans to be a neurosurgeon.

Kayla has been tracking key federal budget legislation and researching historical budget data of NITRD and CISE, among other projects. We've been thrilled to have her on staff this summer!



The Tisdale Fellows above are, from left: Kayla Holston, Computing Research Association; Rafiat Kasumu, Dell Inc.; Alex Arena, Business Software Alliance; Michael Im, Hewlett-Packard Company; and Anthony Feudale, Technology CEO Council.

NSF Co-leads the National Strategic Computing Initiative (NSCI)

By Jim Kurose, Assistant Director of the National Science Foundation (NSF) for Computer and Information Science and Engineering (CISE) and Irene Qualters, Division Director for Advanced Cyberinfrastructure, NSF/CISE



President Obama issued an [executive order](#) on July 30, 2015 creating a National Strategic Computing Initiative (NSCI) to ensure that the United States continues its leadership in high-performance computing over the coming decades. NSF is proud to serve as one of the three lead agencies for the NSCI, working alongside the Department of Energy (DOE) and the Department of Defense (DOD).

NSF has been a leader in high-performance computing (HPC), and advanced cyberinfrastructure more generally, for nearly four decades. NSF has the unique ability to ensure that our nation's research computing infrastructure is guided by the problems that scientists face working at the frontiers of science and engineering, and that our investments are informed by advances in state-of-the-art technologies and groundbreaking computer science research.

By providing researchers and educators throughout the U.S. with access to a diverse, advanced cyberinfrastructure ecosystem – the hardware, software, networks and people that make advanced cyberinfrastructure possible – NSF has accelerated the pace of discovery and innovation in all fields of inquiry. This holistic and collaborative ecosystem has transformed all areas of science and engineering and society at-large.

In the new NSCI, NSF will continue to play a central role in computationally-enabled scientific advances, the broader high-performance computing ecosystem for making those scientific discoveries, and the development of a highly skilled workforce that can use these resources for the good of the nation. Included in this effort will be activities aimed at increasing the coherence between the technology base used for modeling and simulation and that used for data analytic computing; establishing a viable path forward for future HPC systems in the post-Moore's Law era; and increasing the capacity, capability and sustainability of an enduring national HPC ecosystem.

We at NSF recognize that advancing discoveries and innovations demands a bold, sustainable, and comprehensive national strategy that is responsive to increasing computing demands, emerging technological challenges, and growing international competition.

The National Strategic Computing Initiative paves the way toward a concerted, collective effort to examine the opportunities and challenges for the future of HPC.

We look forward to working with other federal agencies, industry, academia, and the scientific community – including the CISE community – to realize a vibrant future for HPC over the next 15 years and to continue to power our nation's ability to be the discovery and innovation engine of the world.

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

Column Editor

Expanding the Pipeline
Patty Lopez, Intel

Professional Opportunities

Boise State University

Department of Computer Science
Postdoctoral Research Associate

The Department of Computer Science at Boise State University invites applications for a PostDoc researcher to work on tool development and prototyping for a data

science related project in the field of precision agriculture. Previous experience in any of the following fields: Machine learning, social network analysis, information retrieval or extremely large databases is required. Preference will be given to candidates who have experience with Hadoop, Spark, PIG, HBASE and HIVE.

At a minimum, applicants should have a PhD or Bachelor's with strong relevant work experience, a proven research track record, relevant experience in big data technologies and excellent oral and written communication skills. Candidates with experience in closely related fields are welcome to apply, providing they're able to



BROWN

Brown University • School of Professional Studies Program Director, Executive Master in Cybersecurity Providence, Rhode Island

The Program Director (PD) oversees the Executive Master of Cybersecurity (EMC) degree program for professional students, and assists in the development of new program(s) and services related to Cybersecurity in conjunction with the Professional Studies team. EMC is a 16-month program that is conducted through blended study online and in several 1 to 2-week residential sessions. Students work full time while completing this degree. For program information, see www.brown.edu/academics/professional/

The PD is the contact point for the administrative, professional and academic personnel responsible for the program and is a major contributor to its success and growth. The PD works closely with the program's academic director(s), faculty, external experts, and corporate and foundation leaders who comprise the program advisory committee, and with School of Professional Studies area leaders, staff and program leadership colleagues.

The School of Professional Studies supports enrollment management, marketing, course development, public relations, and student services and other activities for the program. The program's academic director(s) develop(s) the scientific vision and goals, strategic plan, and curriculum for the program in collaboration with the Dean and Assistant Dean of the School of Professional Studies and with faculty and external advisory committees.

Responsibilities of the Program Director include:

- Ensuring the relevance, currency, and quality of delivery of the curriculum in collaboration with faculty leaders and administrative professionals.
- Engaging in student recruitment and selection, and provide support for students enrolled in the program.
- Ensuring that professional and administrative activities relevant to the program are achieved.
- Overseeing program evaluation and a process of continuous improvement.

Qualifications:

- Bachelor's degree, or preferably Master's or other advanced degree, in computer science/engineering; political science/law/public policy; or significant practical experience that is directly relevant to cybersecurity
- Leadership skill, vision and ability to keep multiple priorities in focus and in progress
- Proven ability to manage programs or projects, timelines, deliverables and budgets, and to adhere to institutional guidelines
- Collaborative team player who fosters open communication and cooperation among stakeholders
- Self-disciplined individual who works independently and applies good judgment
- Excellent oral, written, interpersonal, communication, and organizational skills
- Understanding of current issues and trends in the cybersecurity field, or relevant associated experience demonstrating capacity to serve as leader for this program
- Experience in executive and/or online education preferred

For program information, see www.brown.edu/academics/professional/

To View More Details and To Apply please use the following link to this position as posted to Brown University's Career Site: https://brown.wd5.myworkdayjobs.com/en-US/staff-careers-brown/job/200-Dyer-Street/Program-Director-Executive-Master-s-Program-in-Cybersecurity_REQ117612-1

Brown University is committed to fostering a diverse and inclusive academic global community; as an EEO/AA employer, Brown considers applicants for employment without regard to, and does not discriminate on the basis of, gender, race, protected veteran status, disability, or any other legally protected status.

About Brown (Please visit our website and get to know us better at: www.brown.edu)

Brown is being recognized by the Alliance for Work-Life Progress for success in work-life programs, policies and practices. To earn the Seal of Distinction, Brown had to meet criteria and be assessed in each of the seven categories listed for work-life effectiveness that defines a best-in-class work-life portfolio in today's workplace.

Professional Opportunities

demonstrate how skills and experience can be applied to precision agriculture.

For application instructions and other information, please visit: <http://coen.boisestate.edu/cs/jobs>

Cal Poly, San Luis Obispo

*Electrical Engineering and
Computer Science*

Full-Time Lecturer

The Electrical Engineering Department, in collaboration with the Computer Science Department, in the College of Engineering at Cal Poly, SLO is seeking to hire one full-time lecturer for the 2015-2016 academic year, beginning September 14, 2015. Primary duties will be to teach undergraduate Computer Science and Computer Engineering courses in the areas of Software, Computer Design, Electronics, and Project Supervision.

A master's in Computer Science, Computer Engineering, Electrical Engineering or a related field is required to teach lecture and lab courses.

Preference will be given to candidates with a Ph.D. and evidence of (or potential for) excellence in teaching.

Review the full posting (Req. # 103721) at www.calpolyjobs.org/applicants/Central?quickFind=164688 and select **Apply For This Posting** to complete the required online faculty application.

Fordham University

*Department of Computer and
Information Science*

Postdoctoral Position in Cybersecurity

Fordham CIS invites applications for a postdoctoral position in Cybersecurity immediately. Details about this position can be found at: <http://www.cis.fordham.edu/events/CybersecPostdoc.pdf>

Florida State University

Computer Science

Teaching Faculty I 12 Mo SAL - Job ID#39015

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 Spring 2016 and is renewable on an annual basis.

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.

If qualified and interested in a specific vacancy as advertised, apply to Florida State University at <https://jobs.fsu.edu>.

Applicants are required to complete the online application with all applicable information. Applications must include work history and all education details (if applicable) even if attaching a resume.

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

Florida State University is 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/EO_Statement.pdf

Effective January 1, 2014, tobacco use, including simulated tobacco use, is prohibited on property, interior and exterior, owned or managed by Florida State University. This policy applies to all Florida

State University students, employees, consultants, contractors, visitors, and external individuals.

Effective August 1, 2015, all new hires require a pre-employment criminal history background check.

The Henry M. Jackson Foundation

*Research Scientist (Physiological
Data Modeling)*

The Henry M. Jackson Foundation for the Advancement of Military Medicine Inc. (HJF) is seeking a **Research Scientist (Physiological Data Modeling)** to support 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.

Responsibilities:

1. Develop and apply computational solutions to biomedical problems, involving signal processing of time series physiological data, data mining, data-driven and physiological-based models, and artificial intelligence.
2. Analyze and model physiological data with relevance to, but not limited to, cognitive performance, sleep disorders, and therapeutic interventions using MATLAB and associated toolboxes.
3. Work simultaneously on multiple projects, involving a diverse and interdisciplinary team of scientists across multiple laboratories.
4. Prepare research proposals, progress reports, and manuscripts for submission to scientific journals.
5. Present research methods and findings at appropriate scientific conferences.

Required Knowledge, Skills, and

Abilities: The candidate is expected to simultaneously work on multiple projects.

Professional Opportunities

involving a diverse and interdisciplinary team of scientists across multiple laboratories

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 careers.hjf.org click "Advanced Search" and enter job number **210487** in the Job Opening ID box.

The Henry M. Jackson Foundation for the Advancement of Military Medicine (HJF) is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, protected veteran status or other status protected by law.

The Henry M. Jackson Foundation

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) [<http://bh Sai.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 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, extensive computational experience, 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. PLEASE ONLY APPLY IF YOU HAVE PROVEN COMPUTATIONAL BIOLOGY EXPERIENCE.

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

IBM T.J. Watson Research Center

Research Scientist and Post-docs in Visualization for Healthcare

IBM T.J. Watson Research Center is looking for research scientists and post-docs with interest in the field of data visualization and visual analytics, to design next-generation user interfaces for making sense of big data, particularly in the healthcare domain. This position is based in Yorktown Heights, NY. The Research Scientist/Post-doc will be working alongside visualization, machine learning, and medical researchers performing cutting-edge research in data-driven medicine.

The ideal candidate should possess or be nearing completion of a PhD in computer science or related field with a track record in interactive data visualization and visual analytics research, demonstrated with publications at premier venues, including IEEE InfoVis/VAST and ACM CHI/UIST. We are particularly interested in candidates with

strong technical skills who can generate novel ideas and execute them rapidly.

More information about the position:
<http://ibm.co/ItP8Nae>

Lehigh University

Assistant/Associate Professor of Marketing

The Department of Marketing at Lehigh University seeks to fill one tenure-track position at either the untenured Assistant or Associate Professor rank or the tenured Associate Professor rank to begin August 2016. Applicants must have a doctorate in marketing, computer science, or a closely related field from an accredited institution at the time of appointment. Candidates should be dedicated to achieving excellence in scholarship, teaching (undergraduate and graduate), and service. Lehigh University is an equal opportunity/affirmative action employer. Lehigh offers excellent benefits including domestic partner benefits.

To view full ad: <http://academicjobsonline.org/ajol/jobs/5675>.

NYU Polytechnic

Industry Professor Position

The Computer Science and Engineering Department of the NYU Polytechnic School of Engineering invites applications for an Industry Faculty position, at either the assistant, associate, or full industry professor levels, depending on experience. The position's primary role will be to develop and teach on campus and online courses at the undergraduate level. Industry Professors are multi-year non-tenured full-time positions.

NYU Polytechnic School of Engineering, formerly Brooklyn Polytechnic, is now part of New York University. The Computer Science and Engineering Department has 30 faculty members, including both tenure-track faculty and industry professors. It has a very active PhD and research program, with about \$4

Professional Opportunities

million in research expenditures each year. The Department has approximately 600 master students and approximately 300 undergraduate students. The Department's research strengths include cyber security, big data and visualization, game engineering, and computer science theory.

The position requires at least an MS in

computer science or strongly related areas, with a Ph.D. strongly preferred, and several years of teaching experience in a US university. Outstanding teaching skills are required. Preference will be given to candidates who have experience and vision in developing and teaching online courses as well as teaching the introductory

programming sequence.

Applications received by June 30, 2015 will receive full consideration. NYU is an affirmative action, equal opportunity employer.

EEO

To apply, please go to: www.nyuopsearch.com/applicants/Central?quickFind=52504



Northeastern Lecturer

Requisition Number: FTFR000615

Division/College: College of Computer and Information Science

Location: Main Campus

Full-time/Part-time: Full Time

Responsibilities: The College of Computer and Information Science (CCIS) at Northeastern University is actively looking for one or more experts in MapReduce, Distributed Computing and Data Mining/Machine Learning. The ideal candidate loves to teach and has hands on industry experience. We will consider both full- and part-time applicants at the level of Lecturer or Professor of the Practice depending on the level of industry experience. This opportunity is offered in one of three possible locations: Boston, Seattle and the Bay Area.

Qualifications: PhD in the field of Computer Science is required.

Additional Information: Below are descriptions of our current renditions of the courses:

Map Reduce – The course covers techniques for analyzing very large data sets. We introduce the MapReduce programming model and the core technologies it relies on in practice, such as a distributed file system. Related approaches and technologies from distributed databases and Cloud Computing will also be introduced. Particular emphasis is placed on practical examples and hands-on programming experience. Both plain MapReduce and database-inspired advanced programming models running on top of a MapReduce infrastructure will be used.

Machine Learning – Provides a broad look at a variety of techniques used in machine learning and data mining, and also examines issues associated with their use. Topics include algorithms for supervised learning including decision tree induction, artificial neural networks, instance-based learning, probabilistic methods, and support vector machines; unsupervised learning; and reinforcement learning. Also covers computational learning theory and other methods for analyzing and measuring the performance of learning algorithms. Course work includes a programming term project.

Distributed Systems – In today's increasingly connected world, distributed systems permeate our daily lives. This course would cover fundamental principles and theory of distributed systems, and would discuss the design and implementation of systems from industry that incorporate them. This course will be hands-on with projects based on real-world systems. Key topics include understanding and managing concurrency, consistency/consensus, availability, partition/fault tolerance, time and logical clocks, scalability/performance, and security. We will discuss design and implementation concepts that include distributed file systems (e.g. NFS, HDFS), caches and distributed hash tables (e.g. Dynamo, Cassandra), distributed computing frameworks (Map/Reduce, Spark), overlay networks (Bittorrent, BitCoin) and content delivery networks (Akamai, Limelight), data center architectures and protocols. Students will learn about these concepts and practices both from textbook/lecture material and hands-on experience through projects that include building and deploying working distributed systems.

To be considered for this position please visit our web site and apply on line at the following link:
<http://apptrkr.com/620876>

Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. Northeastern University particularly welcomes applications from minorities, women and persons with disabilities. Northeastern University is an E-Verify Employer.

Princeton University

Computer Science Department

Postdoc- Parallel Computing

The Princeton University Computer Science Department is seeking talented postdoctoral research associates for the newly launched Intel Parallel Computing Center at Princeton. This center develops parallel machine-learning algorithms and software for large-scale computation platforms and deploys such software in the public domain.

Responsibilities of the postdoctoral researchers will include the development and implementation of deep learning algorithms for 3D and 4D large-scale image data sets on the new-generation Intel many core processors. The positions are for one year, with the possibility of renewal based on satisfactory performance and available funding. This position is subject to the University's background check policy.

PhD degree in Computer Science required.

Applicants should apply online at jobs.princeton.edu requisition number 1500494 completing an application and submit a cover letter, a 1-2 page research statement, current CV and the names and contact information of 2-3 references.

Princeton University is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

Professional Opportunities



Northeastern

Faculty Openings, College of Computer and Information Science

NORTHEASTERN UNIVERSITY Boston, MA, Seattle, WA and Silicon Valley, CA

Position Summary: The College of Computer and Information Science invites applications for the positions of Assistant Teaching Professor(s), Associate Teaching Professor(s), Teaching Professor(s) and Lecturer(s). Primary responsibilities will be teaching undergraduate and graduate courses in the Computer Science and/or Information Science fields. Positions will begin in September 2015 or January 2016. Salary is competitive and promotional tracks are available. Opportunities exist for candidates seeking strictly teaching or a teaching/research track. For more information about the College, please visit <http://www.ccs.neu.edu>

Qualifications: Ph.D. in Computer Science and/or Information Science and teaching experience preferred.

Application Instructions: Additional information and instructions for submitting application materials may be found at the following website: <http://apptrkr.com/619317>

Northeastern University is an Equal Opportunity/Affirmative Action Employer. We particularly encourage applications from women and underrepresented minorities.

Reed College

One-Year Visiting Position in Computer Science

The Reed College Mathematics Department invites applications for a one-year visiting position in computer science, rank open, to begin in the fall of 2015. Applicant should have completed, or should be near completion, of a Ph.D. in computer science and should be committed to excellence in teaching and in scholarship. The successful applicant will share responsibility, along with two other full-time faculty members, for teaching the core computer science coursework and for supervising the senior thesis projects of students seeking a degree in the computer science concentration within Mathematics. Applicants from all areas of computer science are encouraged to apply.

Reed is a distinguished liberal arts college with 1400 students that offers a demanding academic program to bright and dedicated undergraduates. Faculty members normally teach five semester courses per year (usually two course preparations per semester) and supervise senior theses (required of all students). Reed College is a community that believes that cultural diversity is essential to the excellence of our academic program. All applicants should briefly address how their teaching, scholarship, mentoring, community service, or other activities could support Reed's commitment to diversity and inclusion as articulated in the college's diversity statement at <http://www.reed.edu/diversity/>.

Applicants should submit their applications electronically through the Interfolio service at <http://apply.interfolio.com/30126> and should include a cover letter, curriculum vitae, teaching statement, research statement, and three letters of recommendation. We will begin evaluating applications and inviting candidates to interview on July 17, 2015. Though



Northeastern Part-time Lecturer

Requisition Number: PTFR000153 / **Division/College:** College of Engineering / **Location:** Seattle Campus

Responsibilities: Teach selected graduate courses in the Master of Science in Engineering Management Program. Course topics might include engineering probability and statistics, financial management, logistics, warehousing, scheduling, economic decision making, project management, big data systems, web development tools and methods and operations research. Responsibilities include preparation of course materials, examinations, and evaluation of student learning and performance in the course. Part time positions are available in Seattle and Online.

Qualifications: PhD in relevant engineering discipline is required; some professional and/or teaching experience preferred. (Master's Degree in Engineering Management, Information Systems, or related field may be acceptable with 10+ years relevant experience. Must have strong, effective verbal skills to communicate and interact well with students online.

Additional Information: To be considered for this position please visit our web site and apply on line at the following link: <http://apptrkr.com/620624>

Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. Northeastern University particularly welcomes applications from minorities, women and persons with disabilities. Northeastern University is an E-Verify Employer.

Professional Opportunities



Olin College of Engineering

Visiting Faculty Position in Computing

Do you get excited about all aspects of computing, from algorithms and interfaces to fully developed products? We do. At Olin we define engineering broadly, from understanding people and their needs to designing solutions and delivering new technologies and services to people and society. Our computing curriculum engages students who have a strong interest in pursuing computing as well as those who see value in understanding computational concepts and then applying them to other fields. We appreciate hands-on work that links computing with students' passions and knowledge.

Olin has an opportunity for a creative, enthusiastic computer scientist, software engineer, or like-minded individual to join us as a full-time visiting faculty member for two years, beginning in late summer 2015. This position is ideal for a recent Ph.D. with interests in building a teaching portfolio, for a more seasoned faculty member who wants to spend time in an experiential, interdisciplinary, student-centric learning environment, or for an industry professional with some teaching experience considering making a longer-term career change. This position offers opportunities to co-teach with Olin faculty and develop new classes and teaching materials.

Application Instructions

For more information on the position, and for application instructions, please visit: <http://www.olin.edu/join-community/visiting-faculty/computing>

Olin College is an Equal Opportunity Employer, and specifically invites and encourages applications from underrepresented groups.

applications will be accepted until the position is filled, submitting an application before that date ensures its consideration. Reed is an Equal Opportunity Employer and members of underrepresented groups are especially encouraged to apply.

Potential applicants are encouraged to send any inquiries about the position to the chair of the search committee, Jim Fix, jimfix@reed.edu.

US Naval Academy

Department of Computer Science Postdoctoral Research Associate

The U.S. Naval Academy's Department of Computer Science invites applications for a Postdoctoral Research Associate to help lead new research in applying natural language processing to the cybersecurity domain. The position has support for up to two years.

The Postdoctoral Research Associate will work as part of an emerging research initiative to model and extract cybersecurity events and discussions from social media text. The individual will coordinate activities between two research groups, pursue research with limited supervision, prepare professional publications, help supervise

undergraduate students in basic research, and help start a new research area at the intersection of artificial intelligence and cybersecurity.

The successful candidate will have an excellent track record in research in natural language processing, machine learning, computational linguistics, or related field. Research experience in information extraction and social media analysis is also encouraged.

More information can be found at:
<http://www.usna.edu/HR0/jobinfo/CompSciPostDoc-2015.php>

Applications should be sent to: postdoc-group@usna.edu

The University of Arizona

Computer Science Lecturer

The Department of Computer Science at The University of Arizona seeks applicants for a Lecturer position. This is a full-time, benefits-eligible, non-tenure track appointment. The position is a one year renewable academic-year contract.

The most important criteria for the position are demonstrated excellence in undergraduate Computer Science education and extensive knowledge of core Computer Science topics. Candidates with experience teaching large-enrollment classes are especially welcome.

The minimum requirement for the position is an MS in Computer Science or closely related discipline. Preference will be given to candidates who have, or are close to having, a Ph.D in Computer Science or related field, as well as teaching experience.

As of Fall 2015, the Department of Computer Science at the University of Arizona will have 21 faculty members, including three senior lecturers and one junior lecturer. The Department has a long history of research

Professional Opportunities

accomplishment, influential software distribution, and excellent undergraduate and graduate instruction. Current research and teaching areas span most core areas of Computer Science. The university is located in Tucson, a valley with desert landscape surrounded by mountain ranges. Tucson boasts a warm climate, 350 sunny days per year, with ample opportunities for outdoor activities such as hiking, mountain biking, horseback riding, caving, and rock climbing. More information about the University and its environs is available at www.whyUA.com.

The University of Arizona is a committed Equal Opportunity/Affirmative Action Institution. Women, minorities, veterans and individuals with disabilities are encouraged to apply.

Current information regarding this position and instructions for applying are available at www.uacareertrack.com/applicants/Central?quickFind=216635. Review of applications will start on June 10th and will continue until the position is filled.

University of British Columbia

Department of Computer Science

Endowed Chair in Computer Systems

The Department of Computer Science at the University of British Columbia (UBC) Vancouver Campus, is seeking candidates with exceptional scientific records in the area of Computer Systems, broadly defined, for a fully endowed chair at the rank of tenured Professor, made possible by a

generous donation to the department by David Cheriton, a distinguished Stanford Professor and UBC alumnus. UBC Computer Science (www.cs.ubc.ca) ranks among the top departments in North America, with 54 tenure-track faculty, 200 graduate students, and 1500 undergraduates.

The successful candidate must demonstrate sustained research and teaching excellence judged by the following key factors:

i) publication record in the highest caliber international computer science systems, networking, operating systems, distributed systems, and security conferences and journals; ii) impact on the field and/or industry resulting from his or her publications, or resulting from other research artifacts such as software; iii) successful mentorship of

Fixed-term Multi-year Instructor Position

The Pennsylvania State University's School of Electrical Engineering and Computer Science invites applications for a fixed-term multi-year non-tenure track Instructor position. The position requires a minimum of a Master's degree in Computer Science, Computer Engineering, Electrical Engineering or a closely related field.

The primary responsibility of the position is to assist undergraduate students in Computer Science, Computer Engineering and Electrical Engineering with course scheduling, degree planning, career guidance, and other academic issues. The faculty member will also participate in New Student Orientation (NSO), Spend a Summer Day (SASD), Major Information Nights, and various other recruiting and retention programs within the School of Electrical Engineering and Computer Science. There will also be minimal teaching duties involved and some committee responsibilities. Any technical area of interest within electrical engineering and/or computer science and engineering is acceptable.

Applicants should upload a cover letter of application establishing their qualifications; a current curriculum vita; and three letters of academic reference.

Apply to job 58302 at <http://apptrkr.com/624683>. Review of applications will continue until the position is filled.

CAMPUS SECURITY CRIME STATISTICS: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to <http://www.police.psu.edu/clery/>, which will also provide you with detail on how to request a hard copy of the Annual Security Report.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

Professional Opportunities

graduate students, and collaboration with other researchers in the field; iv) teaching of both undergraduate and graduate courses and department service; and v) external funding and leadership within his or her research community. Preference will be given to candidates that have built or contributed to the building of real software systems of note. Outstanding industrial researchers are also encouraged to apply – all evidence of a candidate's public speaking, teaching and mentoring effectiveness, such as in seminars, tutorials, or student project supervision, will be considered. The potential of an applicant's research program to complement and extend existing research strengths of the department and the University will be an important factor in selection. The anticipated start date is July 1, 2016.

Applicants must submit a CV, a research statement, a teaching statement, and the names of at least four references. The teaching statement should include a record of teaching interests and experience. Applications may be submitted online at: <https://apps.cs.ubc.ca/fac-recruit/systems/apply/form.jsp>

The website will remain open for submissions through the end of the day on September 1st, 2015. The website may remain open past that date at the discretion of the recruiting committee. All applications submitted while the website remains open will be considered.

UBC hires on the basis of merit and is strongly committed to equity and diversity within its community. We especially welcome applications from members of visible minority groups, women, Aboriginal persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to engage productively with diverse communities. All qualified candidates are encouraged to apply; however, Canadian

citizens and permanent residents will be given priority.

If you have questions about the application process, please contact the Chair of the Systems Recruiting Subcommittee by email at fac-rec-systems@cs.ubc.ca

Norm Hutchinson
Chair, Systems Recruiting Subcommittee
Department of Computer Science
University of British Columbia
Vancouver BC V6T 1Z4
Canada

Please do not email applications.

Apply online via: <https://apps.cs.ubc.ca/fac-recruit/systems/apply/form.jsp>

University of Georgia

Department of Computer Science
Two Lecturer Positions

The Department of Computer Science at the University of Georgia invites applications for two Lecturer positions starting August 2015. The responsibilities of this position include teaching foundational courses in the undergraduate major and periodically teaching a senior/beginning graduate level course in his/her specialty. In addition, this position allows for opportunities to

develop new undergraduate courses for our expanding program.

Successful Lecturer candidates should hold a Ph.D. degree in Computer Science or a closely related field. Scholarly credentials should reflect a strong commitment to teaching Computer Science courses at the undergraduate level. Although not tenure track, it is expected that the person holding this position will remain with the department long term.

The University of Georgia (<http://uga.edu/>), founded in 1785, is the oldest land-grant university in the nation and the largest university in Georgia (exploregeorgia.org), with a student body of over 34,000. It is located in Athens (<http://www.visitathensga.com/>) a charming and historic university town of about 100,000, approximately 65 miles from Atlanta, with mild winters and warm summers. The University boasts a major Performing Arts Center and the country's best fitness and exercise facility for students and faculty. It has been consistently ranked among the top 20 public universities by U.S. News and World Report. Applicants will find UGA and the rapidly growing technology sectors in Athens/Atlanta supportive of professional growth.



University of Colorado
Denver

**Assistant Professor
CTT - Computer Science
and Engineering**

The Department of Computer Science and Engineering in the College of Engineering and Applied Science at the University of Colorado Denver invites applications for a non-tenure-track position of Assistant Professor, Clinical Teaching Track.

Required Qualifications: Ph.D. in Computer Science, Computer Science and Engineering, or closely related field.

For full details and to apply visit www.jobsatcu.com job posting #F02629.

The University of Colorado is committed to diversity and equality in education and employment

Professional Opportunities

To apply, please upload an application letter, curriculum vitae, and a statement of teaching philosophy, as a single PDF file, at <https://webapps.franklin.uga.edu/jobs/apply.php?id=102>. Applicants should also arrange for at least three letters of reference to be uploaded separately to the same web site.

The search committee will begin reviewing applications on June 15, 2015, until the position is filled. Please see <http://www.cs.uga.edu> for more information about the department and the university.

The Franklin College of Arts and Sciences, its many units, and the University of Georgia are committed to increasing the diversity of its faculty and students, and to sustaining a work and learning environment that is inclusive. Women, minorities, protected veterans and individuals with disability are encouraged to apply. The University of Georgia is an EEO/AA institution.

University of Houston

*Cullen College of Engineering
Postdoctoral Researcher*

Postdoctoral fellowships are available in microscopic/spectroscopic image processing and visualization.

The STIM Laboratory is a new research group in the Department of Electrical and Computer Engineering at the University of Houston. We have open positions for postdoctoral fellows interested in two major areas involving microscopy and spectroscopic imaging:

- Image processing and analysis of large biomedical data sets. This includes segmentation and classification, with a focus on fast (GPU-based) algorithms.
- Visualization of large biomedical data sets. This includes selective visualization of terabyte-scale data, volumetric visualization, and level-of-detail methods to manage models of whole organs.

This work will focus on developing new data processing methods for disease diagnosis, with a particular focus on cancer imaging. Our laboratory uses various optical techniques, including confocal microscopy, SPIM, and mid-infrared microspectroscopy. Applicants will be expected to work closely with clinicians to create software that can be used by biomedical researchers.

<http://stim.ee.uh.edu/personnel/available-positions/>

The University of Houston is classified as a "Tier One" (Carnegie RU/VH) research university, and is one of four major research universities in Texas. We are located in central Houston, which is the fourth largest city in the United States and a central player in both energy and biomedical research. We have a strong industrial and academic research focus, including both NASA and the Texas Medical Center, which is the largest medical center in the world.

Interested scientists should send their CV and a description of their research interests to stim@uh.edu.

University of Illinois at Urbana Champaign

Computer Science

Postdoctoral Researcher in Natural Language Processing in Behavioral and Health Sciences

We are seeking to hire a postdoctoral researcher in the use of natural language for prediction of health, behavioral and social events. The researcher will help develop computer science methods and models to better understand communication and the effects of language in real world contexts, with particular attention to health outcomes. She or he will be housed at the University of Illinois at Urbana Champaign, working with Cheng Zhai in Computer Science and Dolores Albarracín in Psychology. The project involves a wide

network of collaborators at University of Illinois Chicago, Emory University, University of Pennsylvania, and John Hopkins University, as well as epidemiologists from state health departments.

The ideal candidate will have knowledge and experience in computational linguistics and applied machine learning. She or he will develop and code novel methods to leverage large datasets (i.e. billions of tweets), develop systems, and prepare research articles and reports. The position is for 2 years, renewable, with the opportunity to participate in other initiatives and apply for independent funding. The position entails great publication opportunities.

Application Deadline: July 15, 2015 (and accepted until position is filled). Start Date: August 2015

How to Apply: Send Curriculum Vitae with details about relevant experience, as well as the names of 2 references to socialactionlab@gmail.com.

Illinois is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, status as a protected veteran, or status as a qualified individual with a disability. Illinois welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity. (www.inclusiveillinois.illinois.edu).

University of Memphis

*Department of Computer Science
Research Assistant Professor Position*

The Computer Science Department invites applications from outstanding candidates with research interests in mobile health (mHealth) and its related subfields including Human Computer Interaction (HCI), Big Data, and Mobile Computing, at the Research Assistant Professor level.

Professional Opportunities

Required qualifications include a Ph.D. in computer science or a related discipline, record of publications in mobile health or a related subfield, and prior mentored and/or independent research experience with demonstrated interests in mobile health. This non-tenure track position is for 12 months and is renewable based on performance and availability of funding.

The successful candidate will work closely with NIH-funded Center of Excellence for Mobile Sensor Data-to-Knowledge (MD2K) and will be joining a department with active research groups in all major areas of computer science that is ranked 55th in the Nation in federally funded research. Full information about the department can be found at <http://www.cs.memphis.edu>.

The MD2K Center of Excellence (funded under the Big Data-to-Knowledge initiative of NIH) is headquartered at Memphis and involves 20+ leading scientists in computing, engineering, medicine, and behavioral science from Cornell Tech, Georgia Tech, Michigan, Northwestern, Ohio State, Rice, UCLA, UCSF, UCSD, and UMass. Further information about the MD2K Center is available at <http://md2k.org>.

Review will begin on April 13, 2015 and may continue until the position is filled, subject to budgetary approvals.

To apply, please follow the instructions at <https://workforum.memphis.edu> (Position #: LI6522). Please include a cover letter, vitae, statement of research philosophy, and a minimum of three references. Direct inquiries to chayes1@memphis.edu.

The University of Memphis is a Tennessee Board of Regents Institution and an Equal Opportunity/Affirmative Action Employer. We urge all qualified applicants to apply for this position. Appointment will be based on qualifications as they relate to position requirements without regard to race, color, national origin, religion, age, sex, disability or veteran status. Successful candidates

must meet guidelines of the immigration and Reform Control Act of 1986.

University of Notre Dame

Teaching Faculty Position

The Department of Computer Science and Engineering at the University of Notre Dame seeks candidates for a teaching faculty position to teach courses primarily in the CS&E undergraduate curricula. This is a full-time, continuing position in the Special Professional Faculty track. Competitive candidates will have the training and experience necessary to teach effectively in a range of courses in accredited degree programs in Computer Science and Computer Engineering. Candidates with backgrounds in all areas of Computer Science and Computer Engineering will be considered. Relevant industry experience is also valued.

The University of Notre Dame is a private, Catholic university with a doctoral research extensive Carnegie classification, and consistently ranks in USNWR as a top-twenty national university. The South Bend area has a vibrant and diverse economy with affordable housing and excellent school systems, and is within easy driving distance of Chicago and Lake Michigan.

Qualified candidates should have at least a Masters degree, and preferably a doctoral degree, in Computer Science, Computer Engineering, or a related area.

Applications should include a cover letter, curriculum vitae, statement of teaching experience and philosophy, and names of at least three professional references, at least two of whom must be able to comment on the applicant's teaching experience. Review of applications will begin on June 1 and continue until the position is filled.

Applications should be submitted at <http://apply.interfolio.com/29569>.

The University of Notre Dame is an Equal Opportunity, Affirmative Action Employer.

University of Pennsylvania

Computer Science Postdoctoral Researcher in Natural Language Processing for Social Science

We invite applicants for a postdoctoral research position in natural language processing for health and social science, working on an interdisciplinary research project studying subjective well-being and health outcomes. The researcher will help develop state-of-the-art methods and models to better understand people, such as predicting personality from the words they use and automatically recognizing cognitive distortions typical of people prone to depression.

The ideal candidate will have research experience in computational linguistics and applied machine learning. She or he will develop and code novel methods to leverage large datasets (i.e. billions of tweets) and use them to further our understanding of health, well-being, and the psychological states of individuals and large populations. Methods and results will be published in high impact computer science venues and, via collaboration with psychologists and medical doctors, in social science and health venues.

Application Deadline: September 1, 2015

Approximate Start Date: January 1, 2016

How to Apply: Send a detailed CV with at least 2 references who can be contacted for letters to applications@wwbp.org. Include job-code "POSTDOC-CS" in subject line. The University of Pennsylvania is an EOE/Affirmative Action Employer. Position contingent on funding.

This work is with Professor Lyle Ungar and the University of Pennsylvania's World Well-Being Project (WWBP), a collaboration between computer scientists and psychologists pioneering techniques for measuring physical and psychological well-being based on language in social media. WWBP uses machine learning techniques

Professional Opportunities

applied to the language of large social media datasets to predict and characterize psychological and health variables at the individual and community levels. More about the project can be found at <http://wwbp.org>.

Primary Contact: Professor Lyle Ungar,
ungar@cis.upenn.edu

University of Pennsylvania

Senior Data Scientist

The **World Well-Being Project (WWBP)** is seeking a Senior Data Scientist to join our interdisciplinary team. The position will apply machine learning and natural language processing techniques to large social media and clinical data sets to answer questions related to subjective well-being and health outcomes. Individuals in this role are expected to be comfortable working as software engineers and quantitative researchers, and supervising junior programmers.

To view responsibilities, qualifications, and apply for the position, follow this link: <https://jobs.hr.upenn.edu/postings/11374>

The University of Pennsylvania is an EOE/Affirmative Action Employer. Position contingent on funding. More about the project can be found at wwbp.org. Contact applications@wwbp.org with questions.

The University of South Dakota, Vermillion, SD-57069

*Tenure-Track Assistant/
Associate Professor(S)*

Start date: Fall 2015

The Department of Computer Science at The University of South Dakota (RU/H: Research Universities) invites applications for one or more tenure-track positions at the Assistant or Associate Professor level.

Qualifications: (i) Ph.D. in any area of computer science or computer information

systems. (ii) Demonstrated research creativity and productivity. (iii) Ability to develop a strong research program. (iv) A strong commitment to excellence in education at both the undergraduate and graduate level.

Applications must be submitted online at <https://yourfuture.sdbor.edu> (Posting Number: 0007288)

Review begins immediately and continue until the position is filled. For full consideration, application materials must be received by July 27, 2015.

EEO/AA

University of Virginia

Center for Automata Processing Managing Director

The newly formed Center for Automata Processing (CAP, www.cap.virginia.edu) has the exciting opportunity to explore the capabilities of Micron's recently announced Automata Processor (AP), and help build the Center.

The role of the Managing Director will be to develop and strengthen partnerships within the UVa research community and with other public and private institutions. The Managing Director will help lead member recruiting and outreach, manage the Center budget and operations, facilitate training and support, assist in directing research projects, and identify and lead new research funding opportunities. The initial appointment will be for a period of two (2) years. Continued employment is dependent upon performance and funding.

Specific Responsibilities include:

- Meeting with representatives from industry, universities, and other institutions to discuss potential collaborative engagements and recruit Center members;
- Identifying and developing sponsored research opportunities and providing

technical and administrative support for Center proposals;

- Managing the development of processes/tools for providing support, tracking support issues, and tracking/reporting time and effort;
- Managing Staff in tracking grant progress and budget compliance, in reporting to sponsors, and assisting/leading on development of proposals;
- Mentoring graduate student research in applications of automata processing and developing new research projects; and
- Helping to oversee the Center budget and operations.

The Managing Director is expected to exhibit strong leadership, with experience managing technical programs, supervising staff, interacting with professionals across a broad spectrum of backgrounds, preparation of refereed papers for scientific journals, and grant and/or proposal writing.

Qualifications Required:

At least a Master's degree in science or engineering, with significant research experience related to computation and/or data analytics. Excellent written/verbal communication skills are required. The candidate must be a self-starter who is creative, resourceful, and responsive. Candidates must demonstrate the ability to work independently with strong attention to detail and to work as a member of a team. The candidate must have a strong understanding of computational and/or data analytics research and willingness to learn. Exceptional relationship building and management skills are required.

Qualifications Preferred:

The ideal candidate will have previous management experience. The candidate should have superior interpersonal and communication skills and an ability to comfortably interact with all constituencies.

Professional Opportunities

both internal and external (examples include university faculty and scientists, graduate and undergraduate students, university staff, industry professionals and executives, agency program managers). The ideal candidate will have a Ph.D. in science or engineering with experience in government and/or industry in addition to familiarity with research in an academic setting. The ideal candidate will have research experience with hardware accelerators.

Applicants must apply online at: <https://jobs.virginia.edu> (posting 0616597). Applications should include a cover letter summarizing the candidate's interest/qualifications for the position, a CV, samples of at least 2 of the candidate's best writing samples, and a list of 3 professional references. U.Va. is an active dual-career employer.

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 Virginia

Department of Computer Science
Postdoctoral Research Associate

The Dependability Group at the University of Virginia has openings for multiple Postdoctoral Research Associates.

The role of the Postdoctoral Research Associates will be to support the Dependability Group's efforts in developing advanced techniques and solutions for Cyber Security.

For more information and/or to apply please go to <https://jobs.virginia.edu> and search by Posting Number 0616679.

Western Michigan University

Department of Computer Science - College of Engineering and Applied Sciences

Faculty Positions in Computer Science

Applications are invited for three tenure-track positions at the assistant professor level in the Department of Computer Science

at Western Michigan University (Kalamazoo, MI) starting January 2016.

Applicants must have a Ph.D. in Computer Science or a closely related field. Candidates with expertise in any area of computer science are welcome to apply, but preference will be given to candidates with particular

Postdoctoral Fellowships at the Institute for Quantum Computing

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

Quantum information science aims to develop transformational technologies that harness the power of quantum mechanics. The Institute for Quantum Computing (IQC) is a world-leading institute for research in quantum information at the University of Waterloo. IQC has 22 faculty members (growing to 33) whose research programs span the areas of Applied Mathematics, Chemistry, Combinatorics & Optimization, Computer Science, Electrical & Computer Engineering, Physics & Astronomy, and Pure Mathematics. IQC members have the opportunity to interact with other research groups at the University, such as the Centre for Applied Cryptographic Research and the nearby Perimeter Institute for Theoretical Physics. New infrastructure, including an advanced nanofabrication and metrology centre, support an expansion of experimental research programs at IQC. We are based in the new Mike and Ophelia Lazaridis Quantum-Nano Centre, a state-of-the-art facility at the heart of the University of Waterloo campus, which provides unprecedented opportunities for research, collaboration and innovation.

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

For information on how to join IQC as a postdoctoral fellow, please visit the *Available positions* link at <https://uwaterloo.ca/institute-for-quantum-computing/>

The preferred deadline for receiving applications is November 1, 2015, but applications may be considered year-round. Candidates are also encouraged to visit the [NSERC website](#) to learn about the prestigious Banting Postdoctoral Fellowship. The deadline for the Banting Fellowship applications is September 23, 2015; qualified candidates should contact a potential supervisor immediately.

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

Professional Opportunities

expertise in big data, computer security and embedded systems/internet of things.

Successful candidates will be capable of establishing an active research program leading to funding, supervising graduate students, and teaching courses at both the undergraduate and graduate levels. Other duties include development of undergraduate and graduate courses, advising and service at the University, College, Department and professional society levels.

Application screening will start on September 15, 2015 but the positions will remain open until filled. Successful candidates must earn their Ph.D. degree by the time of employment.

The Department has 260 undergraduates, 70 M.S. students and 40 Ph.D. students. Current active research areas include networks, embedded systems/internet of things, compilers, computational biology, massive data analytics, scientific computing,

parallel computing, security, privacy, formal verification, parallel debugging, and data mining. More information regarding Western Michigan University, the College of Engineering and Applied Sciences and the Department of Computer Science are available at <http://www.wmich.edu>, <http://www.wmich.edu/engineer>, and <http://www.cs.wmich.edu>, respectively.

The Carnegie Foundation for the Advancement of Teaching has placed WMU among the 76 public institutions in the nation designated as research universities with high research activity.

WMU is an Affirmative Action/Equal Opportunity employer consistent with applicable Federal and State law. All qualified applicants are encouraged to apply. To do so, please visit <http://www.wmujobs.org> and provide a cover letter, curriculum vitae, statement of research goals, teaching statement, and names and contact information of at least three references.

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