House Appropriators Approve Small Bump to NSF Research in FY12

Congress Passes Debt Deal that Could Cripple Science in FY13

By Peter Harsha

While Congress worked to pass a last-minute debt-limit deal that could spell deep cuts for federal science agencies in FY13, members of the House Appropriations Committee approved legislation in mid-July that would provide a slight increase in research funding at the National Science Foundation in FY12, but cuts to education efforts at the Foundation and other science agencies within the bill.

Members of the Commerce, Justice, Science Appropriations Subcommittee were under a mandate to trim $3 billion from what was a $53 billion bill in FY11. Under this $50 billion cap, the committee had to fund FY12 operations for NSF, the National Aeronautics and Space Administration, National Institute of Standards and Technology, and National Oceanic and Atmospheric Administration, in addition to other programs at the Department of Commerce, Department of Justice and the Census. The committee found cuts in nearly every program in the bill, but did single out NSF’s Research and Related Activities account for a $43 million increase.

The committee indicated in the report accompanying the legislation that it provided the increase at NSF despite the heavy cuts elsewhere in the bill because it believed “healthy levels of investment in scientific research are the key to long term economic growth that exceeds population growth.” Within that increase, the committee indicated it expects NSF to prioritize research on cybersecurity, cyber infrastructure, and advanced manufacturing in FY12, and to place an emphasis on neuroscience as well.

Despite the increase, cuts to NSF’s Education and Human Resources Directorate ($26 million compared to FY11) and Major Research Equipment and Facilities account ($17 million vs. FY11) meant the agency overall received flat funding in the appropriations bill. The committee’s approved level falls short by $907 million of the President’s requested level for the agency in FY12.

House appropriators also provided a small increase in research funding for NIST’s core research programs. NIST’s Scientific and Technology Research and Services (STRS) account would see an increase of $30 million in FY12 to $479 million, an increase of about 6.8 percent over FY11 funding. STRS funding still falls well below the President’s requested level of $629 million for FY12.

NASA and NOAA both suffered big cuts in the House appropriators’ bill. NASA would see agency funding cut by $1.4 billion in FY12, a decrease of 14.3 percent. NASA’s Science account was not protected by appropriators, absorbing a $283 million (8.3 percent) reduction to $2.96 billion in FY12.

Despite the disappointing funding levels for federal investments in science, members of the Appropriations Committee claimed to remain fully committed to federal support for research and development. In the report accompanying the legislation, House Appropriators said: “We support programs that have the potential to create new jobs and stimulate our nation’s economy.”

National Robotics Initiative: A National Partnership to Advance U.S. Leadership in Robotics

By Farnam Jahanian

While the President’s Council of Advisors on Science and Technology (PCAST), Designing a Digital Future: Federally Funded Research and Development in Networking and Information Technology, predicts that the impact of R&D in science agencies in FY13, but cuts to education efforts at the Foundation and other science agencies within the bill.

The social, behavioral, and economic sciences are essential in addressing the most important and challenging problems in producing human-assisting robots. Research to better understand the symbiotic relationship between humans and machines is required to optimize the workforce productivity gains envisioned with the use of co-robots.

The computing community played a critical role in contributing to the formulation of this initiative through its work on two key reports: The first, A Roadmap for U.S. Robotics—From Internet to Robotics1, was developed by more than 100 experts from industry and academia as part of the Computing Community Consortium’s (CCC) visioning exercise on robotics2.

The second report released by the President’s Council of Advisors on Science and Technology (PCAST), Designing a Digital Future: Federally Funded Research and Development in Networking and Information Technology3, predicts that the impact of R&D in the social, behavioral, and economic sciences are essential in addressing the most important and challenging problems in producing human-assisting robots. Research to better understand the symbiotic relationship between humans and machines is required to optimize the workforce productivity gains envisioned with the use of co-robots.

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Reflections on the 2011 Richard Tapia Celebration of Diversity in Computing Conference

By David Patterson

The goal of the Tapia conferences is to bring together undergraduates and graduate students, professionals, and faculty in CS&E from all backgrounds and ethnicities. Two highlights of the 2011 Tapia Conference: celebration and diversity. The conference celebrated the technical contributions and career interests of diverse people in computing fields, with an emphasis on inspiring students from diverse communities to continue their education in computing. Tapia 2011 was a different format from the past, based in large part on surveys of past attendees. In fact, Tapia 2011 continued to experiment in using modern, Internet-based collaboration tools to collect data and drive the conference.

A Unique Conference: The Most Diverse in Computing

It is striking how diverse Tapia is compared to all other conferences (see photo below). Sticking to form, we use the final survey (completed by 73% of attendees) to supply quantitative evaluation of the conference. First the data:

Demographic: Gender?

- Female: 57%
- Male: 43%

Demographic: Hispanic?

- Yes: 28%
- No: 72%

Demographic: Race/Ethnicity?

- African American/Black: 35%
- Mexican American/Other Latin American: 19%
- Caucasian/European/White: 26%
- American Indian or Alaskan Native: 1%
- Native Hawaiian or Pacific Islander: 0%
- Asian Indian: 2%
- Other Asian (Chinese, Korean, Filipinos, Vietnamese, Japanese, other): 9%
- Middle Eastern: 2%
- No race or ethnicity: 4%

Clearly, the makeup of most research conferences is very different from the statistics above. Furthermore, for conferences that focus on a specific underrepresented group, it is usually the case that 90% to 95% of the attendees are from the target group. Ironically, even if the ethnic or gender makeup is very different, they are no more diverse than other CS conferences. I believe the diversity is one reason Tapia was so popular. If you believe in diversity, there is no better conference!

An Unqualified Success

By all measures Tapia 2011 was a success. Attendance set a record of 517, one-third larger than last time. In fact, we had to close registration the week before the conference because we couldn’t fit any more people into the meeting room. We might have shot past 550 without the cutoff. A sample of the responses to the survey supports the finding that the conference was effective as well as popular:

- Of those who had attended past Tapia conferences, 70% strongly or slightly prefer Tapia 2011.
- 93% are very likely or somewhat likely to attend Tapia 2013.
- 97% are very satisfied or somewhat satisfied with Tapia 2011.
- 98% are very likely or somewhat likely to recommend Tapia to a colleague or peer.

According to the students—who were 75% of all attendees, evenly split between undergraduates and graduate students—Tapia 2011 met our greater goals:

- 86% agreed or strongly agreed that attending Tapia 2011 increased their dedication to completing their degree.
- 98% agreed or strongly agreed that they are confident that they will complete their degrees.

We also set a fundraising record with nearly $300,000 in support of the conference, thanks to the efforts of our fund-raising chair Cynthia Lantius of Rice and to the sage advice of Telle Whitney of the Anita Borg Institute. The top 10 supporters were NSF, Google, Intel, Cisco, Microsoft, NetApp, IBM, Symantec, LLNL, and Oracle. The following Gold academic sponsors sent 10 or more non-scholarship students:

UC Berkeley (42 attendees total), Rice (26), Georgia Tech (23), UT Austin (20), Texas A&M (17), Cal State University Stanislaus (12), and Virginia Tech (10). An amazing sign of success of Tapia 2011 is that 38 professional attendees and 130 student attendees volunteered to help with future Tapia conferences.

Connections: The Tapia 2011 Experiments Worked

The theme of Tapia 2011 was “Connections,” in that we are all connected together no matter how we appear or where we currently live, much more than you might expect. I demonstrated such connections in the opening session by talking about the parallels between the lives of Richard Tapia and myself:

- Both grew up in Torrance, California in homes that were three miles apart.
- We are both the first-born sons of large, church-going families.
Francisco.
The 10% drop in Portland was followed by a 33% increase in San

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The connection theme carried through new events for 2011. Eight of the ten top-rated events were tried for the first time at Tapia 2011. These innovations included:

- An afternoon activity break outside conference on Day 2 to help attendees make connections, to let everyone’s batteries recharge, and to encourage attendance at the rest of the conference, ably organized by Roxana Infanty and Tammy Johnson of UC Berkeley.

- An extended lunch to connect with interesting Bay Area people invited to meet attendees, which Ellen Spertus of Mills College led with aplomb.

- Multiple tracks for the popular Doctoral Consortium so that more PhD students could receive advice and make connections with an expert panel and other PhD students, smoothly chaired by Anthony Joseph of UC Berkeley and Juan Vargas of Microsoft.

- A student opportunity poster session where students could get to know companies and individual research projects that had opportunities for students, which NSF’s Jose Munoz successfully organized.

- An optional visit on the day after the conference to nearby institutions including Google, LBNI, LLNL, and UC Berkeley, to make connections outside the conference.

In addition to the connection theme, the conference included a larger number of invited speakers for Tapia 2011 as well as popular Blaise Aguera y Arcas (Microsoft), Deborah Estrin (UCLA), Alan Eustace (Google), Illya Hicks (Rice), Ayanna Howard (Georgia Tech), John Kubiatowicz (UC Berkeley), Patty Lopes (Intel), and Irving Wladawsky-Berger (IBM retired).

See You in 2013 (and Shortly Thereafter)
A final indication of the success of Tapia 2011 is that CDC plans to make Tapia an annual event starting in 2013. Based on survey feedback, the next Tapia will be moved to late February so that students can apply for internships with companies at Tapia. This feedback also suggested that a Friday-Sunday conference would be a lot easier for students to attend, so the next conference will likely be held some weekend in February 2013. Watch this space for the final dates and location.

Tapia 2011 wouldn’t have happened or been as successful without the hard work of a lot of volunteers and the financial support of a lot of organizations. I’d like to thank everyone, but especially those mentioned earlier as well as:

- Juan Vargas (Microsoft), who was my vice chair (and is chair for Tapia 2013).
- Cynthia Lantis (Rice), who chaired the record-breaking fund-raising effort.
- Hal Marz (Google) and Ryan Hundley (Google), who handled the substantial challenges of local arrangements.
- Jamika Burge (Penn State) and Tiki Suates-Brown (Florida A&M), who served as Scholarships Chairs for hundreds of applicants.
- Tony Butiš (LLNL), who ran registration for a surprisingly large conference.

Two New Members Join the CRA Board
CRA is pleased to welcome Peter Norvig (Google) and Limor Fix (Intel) as members of its Board of Directors. They will serve as industry lab representatives, completing the terms of two board members who resigned when they moved to non-industry positions.

Peter Norvig is Director of Research at Google Inc. He is a Fellow of the AAAI and the ACM and co-author of Artificial Intelligence: A Modern Approach, the leading textbook in the field. Previously Dr. Norvig was head of Computational Sciences at NASA and a faculty member at USC and Berkeley.

Limor Fix is Director of Academic Programs & Research at Intel Labs Hillsboro, and an Intel Senior Principal Engineer. She has a Ph.D. in Computer Science from the Technion in Israel, where she joined Intel in 1994. Prior to moving to Intel Labs Hillsboro, Dr. Fix served as Director of Intel Research Pittsburgh. In June, she received the 12th annual Marie R. Fixit Award in Electronic Design Automation (EEDA) Achievement Award at the Design Automation Conference.

- Jon Bashor (LBNI), who ran publicity and made us all sound eloquent.
- Tony Drummond (LBNI), who led the student research poster session.
- Phoebe Leroy (Illinois) and Josef Sifuentes (NYU), who organized the popular banquet.
- Manuel Perez Quiñones (Virginia Tech), who represented CDC.
- Richard Tapia (Rice) and Valerie Taylor (Texas A&M) for inviting me to chair the conference; it turned out to be a much bigger and more demanding venture than any of us expected!

David Patterson is Director of the Parallel Computing Laboratory and the Pardus Professor of Computer Science at UC Berkeley. He is a former chair and member of the Computing Research Association’s Board of Directors.

Notes:

- Tapia Conferences are organized by the Coalition to Diversify Computing (CDC) and sponsored by ACM in cooperation with CRA and the IEEE Computer Society.
- UC Berkeley sent 42 people to the conference, the most of any institution. In fact, Berkeley and Stanford combined sent 42 people.

Jeannette Wing Receives CRA Distinguished Service Award
Jeannette Wing, Professor and Head of the Department of Computer Science, Carnegie Mellon University, was selected to receive the CRA Distinguished Service Award 2011. The award was presented by Ed Lazowska, University of Washington, at ACM’s Annual Awards Banquet in San Diego in June.
Interesting Times as CRA Approaches 40

By Andy Bernat, Executive Director

Welcome to the 39th year of the Computing Research Association! And for our academic members, welcome to a new academic year. For those of you fortunate enough to not have been reading national news or watching your retirement portfolio, this fall has been quite the wild ride in Washington, DC, home to CRA World Headquarters.

There’s a lot going on at CRA so my purpose here is to update you on CRA’s efforts and activities on behalf of the computing research community. As always, I suggest that you monitor our two main information conduits: CRA Policy Blog http://cra.org/blog and the Computing Research News blog http://crcblog.org. We can also be found at computingresearch on Facebook, @CRAstats on Twitter and through our YouTube channel computingresearch.

The CRA Board’s most recent semi-annual meeting was held in San Francisco in mid-July with a focus on several topics of wide interest to our community. The summer meeting is typically the one in which we look towards the future, whereas the winter meeting often is focused more on the near and middle term. This July, as I will describe in detail below, the Board looked in particular at two issues directly related to the health of the computing research community and two issues focused on how CRA can best support the community.

CRA’s main mission continues to be to ensure the health of the computing research community and for moving forward!

And for our academic members, CRA and others have been thinking about the big issues. Computing is a relatively modern discipline, without overly entrenched traditions and cultures but also one in which traditions and cultures have developed very quickly due to the explosive growth of the field. Thus one very high-level question that was addressed at length during the July Board meeting is: Are the culture and traditions of computing research optimal for moving forward?

CRA and others have been exploring this question via a range of approaches for some time now—see “Cooking Outside the Box” http://archive.cra.org/CRN/articles/s109/boldly_exploring.html; Snowbird 2010 “Peer Review in Computing Research”; Snowbird 2008 “Paper and Proposal Reviews” Is the Process Flawed?” as well as a number of articles and posts by many other concerned researchers in, for example, CACM, on related topics. I take care to emphasize that computing research has been phenomenally successful with contributions and impacts that beg the mind to explore these issues not from the perspective of wringing perspective, but from a “let’s make sure we’ve got it completely right” perspective.

There are a number of issues we could be addressing (your list may certainly vary): our emphasis on conference publishing; our large number of specialty conferences and concomitant lack of a computing-wide forum; a concern that short-term gains are being emphasized to the detriment of long-range innovations in our research; a concern that we are losing funding and conference/journal reviewers are not doing the job we need them to do; a concern that our tenure and promotion guidelines discourage the kind of research that should be going on; and a concern that our community, given our importance, is not sufficiently engaged in the broader science policy space. Plans are afoot at CRA to develop a comprehensive approach to exploring issues related to the field as a whole—stay tuned for more information.

One growing piece of the computing research enterprise is postdoctoral research. Late last fall, CRA pulled together an ad hoc committee, led by Anita Jones, to explore the issue of how the contribution of postdocs is of maximal value to the community, which most definitely includes the postdocs themselves. CRA had already entered this conversation through the Computing Innovation Fellows (CIFellows) Project established by CCC and funded by NSF. The committee developed a white paper which was posted online (http://cra.org/postdoc) and responses were solicited from the community. A number of thoughtful comments were posted and a number of conversations were begun.

This is an important topic: according to Taubilee data, there are currently as many postdoc positions open as for tenure-track faculty—an enormous change in just a few years. Is computing looking the way of other sciences wherein multiple postdocs create a large holding pattern for researchers? This pattern can be highly discouraging and disruptive. And, given that postdocs are an increasing piece of the computing research community, what can we do to ensure that the postdoc experience is productive for all parties, but particularly for the postdoc? Please continue to provide your thoughts as we continue to explore the role and care of postdocs.

In what was obviously a packed Board meeting agenda, the Board also focused on CRA’s Taubilee Survey, which remains a pillar of CRA’s activities on behalf of the community. Taubilee is entering its 37th year of soliciting, and providing information on the production and employment of computer science graduates. Over the years, Taubilee has been expanded to include the production of computing statistics on salaries, levels, and demographic data for faculty, and gender and ethnicity breakdowns. We are always aware there is much additional data that we need to find useful, while simultaneously trying not to overload our departments with even more extensive requests. And historical trends are of considerable interest so we are careful about making changes.

But it’s a good idea to periodically reevaluate what we do ask for and collect against what we should ask for and collect. This is particularly true this year because a “national panel conference/journal reviewers” event to deal with. Recall that we have been publicly reporting Taubilee data in groupings based on the 1995 NRC rankings of PDJ programs. We are all well aware that these rankings are only vaguely related to what people would consider reasonable rankings of programs in mid-2011, but they have had the virtue of consistency. And, since the NRC announced their approach to their 2005s that it would be providing revised and more current rankings, we have held off making our own scheme. But the NRC botched the job, both in terms of what data they collected, how they collected it, and how they compiled rankings from these data (see CRA Statement on NRC Ranking of Graduate Programs at www.cra.org) and we simply cannot use the NRC results. Some folks suggested using the US News & World Report data, but there are considerable problems with that approach as well.

CRA’s Taubilee Survey Committee, under the leadership of Stu Zueben (Ohio State), long-time Taubilee maven, tackled this issue. The first thought was to ask each survey participant to list its peers and to form reporting groups based on these self-selected peer groups. Even with the tools of our trade, this approach failed because the resulting groupings were not tightly bound. But, by looking at a variety of factors, the committee was able to develop a stable set of groupings based on institution type (public or private) and faculty size—with an additional grouping based on the urbanization status for salary information. In order to assure a smooth transition, data from five prior years will be brought into this new reporting structure and provided as well.

The committee explored one more mechanism to provide additional value to our members: those departments participating in the survey will be able to provide CRA with a self-selected peer group and will receive a customized report showing their department in comparison to their peers. We are still working on the privacy and resource issues involved with this effort so stay tuned for more details.

The fourth area that the Board explored was the committee focus of our relatively new committee on education—CRA-E. When originally conceived, CRA-E was intended to provide a focus for computing researchers’ interests in, and activities in support of, undergraduate education. The original mission statement was quite broad, certainly too broad for an organization of (very) finite resources such as CRA, and it overlapped too much with activities already underway at our member societies. So the first activity of CRA-E, under the leadership of Andy van Dam (Brown), was a targeted effort, “Creating Environments for Computational Researcher Education,” (http://www.cra.org/uploads/documents/resources/cra-E-Researcher-Education.pdf) and a session at Snowbird 2010, “CRA-E Report on Basic Computing Knowledge” (http://www.cra.org/uploads/documents/resources/CRA-E-Researcher-Education.pdf).

The idea is to focus on interventions that improve the quality of the pipeline rather than its numbers, and that are not already well covered by other efforts. As an example, CRA-E is seeking to answer the following kinds of questions: Where do our graduate students come from? Are there particularly successful institutions or programs that encourage the best and brightest students to pursue a career in computing research? If so, what can we learn from them?

In addition to these topic areas, there remain CRA’s core areas of ensuring that computing research is well-funded and well-supported by our society. It has an overwhelming impact on the quality and health of that society at all levels and ensures that the flow of high-quality computing researchers continues. I’ll close with some staff notes. Patrick Krason has decided to leave the world of invoicing and member renewals for a position in a law firm dealing with compliance issues. Sandra Corbett has stepped into his shoes. And Carla Romero, CRA’s Director of Programs over the past nine years, has decided to return home to the sunny Southwest by the end of 2011. We are currently in the process of hiring a staff member to work with our committees to ensure that the many programs directed particularly towards diversity are well handled.

These are indeed interesting times. And CRA is both well placed and energized to work on the issues that will keep computing research and the CRA relevant to our world. Please continue to provide your feedback to monitor, subscribe, like or follow us. Or good old-fashioned email to abernat@cra.org.
**CCC: We Want You Involved – And Here’s How**

By Erwin P. Giansanandi

Computing Community Consortium

The Computing Community Consortium (CCC), which will enter its fifth year later this fall, remains focused on catalyzing and empowering the computing research community to pursue more audacious research, all the while attracting bright young talent and fostering development of the next generation of leaders.

To achieve its goals, the CCC relies heavily on the participation of the broader research community. Here are five things you can do today to become involved in this effort (listed in order from least to most time-intensive):

• Submit a “highlight” describing your most recent exciting research result. Each week, the CCC features a “Computing Research Highlight of the Week,” showcasing an interesting research finding. These highlights are called from submissions from members of the research community. If you have a research result that you would like to disseminate, submit your Highlight here: http://cra.org/ccc/submittch. Press releases by your lab, department, or university press office are welcome!

• Help us tell the word about fundamental computing research challenges in areas of national priority. The CCC has developed a set of brochures—based on white papers prepared by the research community—that are intended to appeal to a broad audience, to include students, faculty, colleagues in other fields, policy makers, and the public at large. Visit http://www.cccblog.org/2011/07/22/describing-computing-research-challenges/ for more information.

• Run a special track exploring out-of-the-box research ideas at an upcoming conference or meeting you are organizing. The CCC is sponsoring an initiative to bring “Challenges and Visions” tracks to computer science research conferences. The goal of this initiative is to help efforts extend beyond the usual research papers that describe completed work and to seek out papers that present ideas and visions that may stimulate the research community to pursue entirely new directions. The CCC is providing prize money to the top three papers in each track (first prize $1,000, second prize $500, and third prize $500, to be awarded as travel grants). For more information, including a list of past Challenges and Visions tracks, visit http://cra.org/ccc/vct/

• Propose a community-visioning activity that brings together members of your research community to coalesce around specific research visions. The CCC has a standing RFP—http://cra.org/ccc/vision—for activities with the potential to excite the computing research community, grow funding, and encourage broader segments of society to participate in computerc research and education. Over a dozen such community-FP3 led “visioning activities” have been supported in the past four years, and some of these are now resulting in Federally funded programs. For example, an effort to envision robotics R&D resulted in a definitive report, A Roadmap for U.S. Robotics—From Internet to Robotics, developed by more than 100 robotics experts from industry and academia. As the National Science Foundation’s Assistant Director for Computer and Information Science and Engineering, Farzad Jahanian describes in a separate article elsewhere in this issue of CRN, this report was the basis for the Administration’s recent announcement of a brand new, multiagency, $70 million National Robotics Initiative. These are just a few of the many activities the CCC is pursuing today. For more details about any of these, or for other efforts, visit our website: http://cra.org/ccc/. We hope to see you involved soon!

Dr. Erwin Giansanandi is the Director of the Computing Community Consortium (CCC) and the Computing Innovation Fellows Project within CRA (Email: erwin@cra.org; Phone: 202-266-2936; Fax: 202-667-1060).

Notes:
1 http://cra.org/ccc/initiatives.
2 http://cra.org/ccc/vision.
3 http://www.us-robotics.us.

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**CRA Award for Outstanding Undergraduate Researchers 2012**

**Nominations Due October 14, 2011**

The Computing Research Association is pleased to announce the 18th annual CRA Award for Outstanding Undergraduate Researchers, which recognizes undergraduate students in North American universities who show outstanding research potential in an area of computing research.

Eligible nominees are enrolled as undergraduates in a North American college or university throughout the academic year September 2011 to May 2012. They must be nominated by two faculty members and recommended by the chair of their home department. No more than two male and two female candidates can be recommended by the same department chair in the same year.

The awards committee looks for demonstrated excellence of computing research ability. The type of department in which the student is majoring and the area of computing in which the student has demonstrated ability are immaterial. What is important is the quality of the research work done by the student. The awards committee also considers the student’s academic record and service to the community. Preference is given to students in their senior year (or the equivalent).

A cash prize of $1,000 will be awarded to each of two undergraduate student researchers, one female and one male. A small number of other outstanding candidates will be recognized as Runners-Up and Finalists. All nominees whose research work is considered to be exemplary are recognized with Honorable Mentions.

The awards will be presented at one of the major computing research conferences sponsored by CRA, ACM, or the IEEE Computer Society, SIAM, AAAI, or USENIX. The two first-prize winners will receive financial assistance from CRA to travel to the conference. CRA will also sponsor a departmental reception for the two winners at their home institutions.

CRA gratefully acknowledges the support of Mitsubishi Electric Research Labs (MERL) and Microsoft Research who sponsor the Award in alternate years. MERL is the 2012 sponsor.

Additional information about the nomination procedure and criteria for selection are posted on the CRA website: http://www.cra.org. All nominations must reach CRA by October 14, 2011.

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**New Board Members**

CRA was pleased to welcome new members to their first board meeting on July 25 in San Francisco. Shown above (L to R): Brent Halloran (IBM Thomas J. Watson Research Center); Jeannette Wing (Carnegie Mellon University); Board Chair Eric Grimson (MIT); Susan Davidson (University of Pennsylvania); Mary Czerwinski (Microsoft Research); Peter Norvig (Google); and Limor Fix (Intel). Missing is Ellen Zegura (Georgia Tech) who was unable to attend the meeting.
December 16 Deadline for CRA Service Award Nominations

The Computing Research Association invites nominations for the CRA Distinguished Service Award and the A. Nico Habermann Award for 2012.

**Distinguished Service Award**
CRAs makes an award, usually annually, to a person who has made an outstanding service contribution to the computing research community. This award recognizes service in the areas of government affairs, professional societies, public awareness, and leadership that has a major impact on computing research.

**A. Nico Habermann Award**
CRAs makes an award, usually annually, to a person who has made outstanding contributions aimed at increasing the numbers and/or success of underrepresented groups in the computing research community. This award recognizes work in areas of government affairs, educational programs, professional societies, public awareness, and leadership that has a major impact on advancing these groups in the computing research community.

Recognized contributions can be focused directly at the research level or at its immediate precursors, namely students at the undergraduate or graduate levels. See "Guidelines for Nominators" at: http://www.cra.org/Activities/awards/service/guidelines.html

For a list of previous recipients of these two awards, see: http://www.cra.org/main/cra.awards.html

**Nomination Process**
Send a nomination letter (no longer than two pages) that describes the contributions on which the nomination is based to awards@cra.org. Refer to the appropriate "Guidelines for Nominators" for the award. Include the candidate’s current curriculum vitae. Questions or comments may be addressed to awards@cra.org.

Nominators are responsible for collating the nomination materials before e-mailing the complete package to: awards@cra.org. The deadline for receipt of nominations is December 16, 2011.

Current members of the CRA Board of Directors (http://www.cra.org/main/cra.people.board.html) are not eligible for these awards.

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The computing research community thanks the following non-board members and former board members who served on CRA committees in 2010-11.

Nancy Amato (Texas A&M University) 
Cecilia Aragon (University of Washington) 
Owen Astrachan (Duke University) 
Jon Bashor (Lawrence Berkeley National Laboratory) 
Wayne Bennett (ESRI) 
M. Brian Blake (Nortel Network) 
Peter Bloniarz (University of Albany) 
Aaron Bobick (Georgia Institute of Technology) 
Randy Bryant** (Carnegie Mellon University) 
Jamika Binge (BAE Systems) 
Tracy Camp (Colorado School of Mines) 
Sheila Castañeda (Clarke College) 
John Caruso (University of Delaware) 
Allison Clarke (University of Illinois, Urbana-Champaign) 
Lori Clarke** (University of Massachusetts) 
Joanne Ciohon (University of Virginia) 
Anne Condoe** (University of British Columbia) 
Deborah Crawford (Drexel University) 
Donna Crawford (Lawrence Livermore National Labs) 
George Cjekaj** (Binghamton University) 
Jeff Finnie** (University of Maryland) 
Dilma da Silva (IBM Research) 
Andrea Danyluk (Williams College) 
Smriti Daukadis (University of Rochester) 
Ron Edsall (Rensselaer Polytechnic Institute) 
Carla Ellis** (Duke University) 
Jim Foley** (Georgia Institute of Technology) 
Jeffrey Forbes (Duke University) 
Stephanie Forrest (University of New Mexico) 
Lance Formose (Northwestern University) 
Juan Gilbert (Clemson University) 
Maria Gini (University of Minnesota) 
Susan Graham (U.C. Berkeley) 
Gregory Hager (Johns Hopkins University) 
Julia B. Hirschberg (Columbia University) 
Jim Horning** (Advanced Elemental Technologies Inc.) 
Eric Horvitz (Microsoft Research) 
Mary Jane Irwin** (Penn State University) 
Charles Isbell (Georgia Institute of Technology) 
Brad Jenkins (Brown University) 
Chris Johnson (University of Utah) 
Anita Jones (University of Virginia) 
M. Frans Kaashoek (MIT) 
David Kaeli (Northeastern University) 
Robert Katz** (Carnegie Mellon University) 
Sid Katir** (UC San Diego) 
Dick Karp (UC Berkeley) 
Randy Katz** (UC Berkeley) 
Hand Korth (Lehigh University) 
John King** (University of Michigan) 
Cynthia Lanius (El Alliance) 
Ronald Larsen (University of Pittsburgh) 
Tessa Lau (IBM) 
Ed Lazowska** (University of Washington) 
Gary Leavens (University of Central Florida) 
Peter Lee** (Microsoft Research) 
Anna Lubiw (University of Waterloo) 
George Markowsky (University of Maine) 
Rose Murta (University of Missouri, Columbia) 
Brandes Marshall (Purdue University) 
Andrew McCallum (University of Massachusetts) 
Kathryn McKinley (University of Texas, Austin) 
Ron Metoyer (Oregon State University) 
John Mitchell (Stanford University) 
Linda Morales (University of Texas, Dallas) 
Gail Murphy (University of British Columbia) 
Robin Murphy (Texas A&M University) 
Beth Myers (Georgia Institute of Technology) 
Manuel Perez-Quiñones (Virginia Tech) 
Lori Pollock (University of Delaware) 
Ann Redelke** (Independent Consultant) 
Dan Red** (Microsoft Research) 
Debra Richardson (UC Irvine) 
Susan Rodgers (Duke University) 
Rodrigo Romero (University of Texas, El Paso) 
Bobby Schaubel** (Indiana University) 
Margo Seltzer (Harvard University) 
David E. Shaw (D.E. Shaw Research) 
Mary Lou Soffa** (University of Virginia) 
Eugene Spafford** (Purdue University) 
Marc Steir** (University of Illinois, Urbana-Champaign) 
Bob Streed** (Oracle) 
Lynn Andrea Stein (Olín College) 
Chris Stone (Harvey Mudd College) 
David Tennenhouse** (New Venture Partners LLC) 
Tiki Suarez-Brown (Florida A&M University) 
Josep Torrellas (University of Illinois, Urbana-Champaign) 
Andy van Dam** (Brown University) 
Manuela Veloso (Carnegie Mellon University) 
Jeffrey Vitter** (University of Kansas) 
David Walter** (Columbia University) 
Elaine Weyuker** (AT&T) 
Pamela Williams (Sandia National Laboratories) 
Tide Marie Wilson (University of North Carolina) 
Margaret Whitlock (New York University) 
Bryan York** (Portland State University) 
Stuart Zwemer** (Ohio State University)

**Former CRA board members

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CRA Career Mentoring Workshop

For New Faculty and Advanced Graduate Students in Computing-Related Disciplines

February 27-28, 2012, in Washington, DC

Details: http://www.cra.org

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Chairs of CRA Member Departments and Directors of CRA Member Labs/Centers

Celebrate CRA’s 40th Anniversary

CRA CONFERENCE AT SNOWBIRD 2012

Snowbird Resort, Utah

July 22-24, 2012

Mark Your Calendars Now

Plan to Attend
By Jeffery D. Stein, Chairman, IT History Society

Formed in 2007, the IT History Society is dedicated to informing IT companies about the value in preserving their history, helping archivists to be more effective in their work in preserving IT history and, most importantly, being a reference point for the many international places of computing history information.

The Society wants to assist educators, students of information technology, and researchers in learning more about the history and background of the information technology industry, an industry that has had a significant effect on mankind in the past seven decades. It has nearly 700 international institutional and individual members (no charge to be a member). Institutional members include IBM, HP, Intel, the Smithsonian Institution, Computer History Museum, Charles Babbage Institute, MIT, Caltech, Haus Niordorf Museum, British Library, Stanford Silicon Valley Museum, Deutsches Museum, IEEE History Center, UK National Archive, Hagley Museum, and more. Individual members include historians, computer scientists, and people who have worked in the industry from various countries.

Currently the Society has many online databases, but two, in particular, may be of great value for teaching information technology and research:

1. IT Historical Resource Sites Database—over 400 and growing every day, sites that have historical information about the information industry. This entire database is completely indexed and searchable, which can be a beneficial aid in targeted search and research.

2. IT Honor Roll—a database of over 800 names and growing, discussing individuals who have made a noteworthy contribution to the information technology industry.

National Information Technology resources from the IT History Society are:

• Calendar of upcoming IT Historical and Annual events
• Research links and tools to aid in the preservation of IT history
• Over 1,000 Technology Quotes
• An active Blog with discussions about historical IT events and the people behind them
• A Social Network of IT history professionals, archivists, and hobbyists

The Society is also in the process of creating three more databases:

• All information technology companies both past and present
• All information technology software created, both past and present
• All information technology hardware created, both past and present

The IT History Society—An IT Teaching and Research Resource

September 2011 Computing Research News

Nominations Sought for CRA Board

The Computing Research Association seeks your help in suggesting nominations for its Board of Directors. The deadline for receipt of nominations is December 2, 2011.

Each spring CRA’s member organizations elect about one-third of the association’s board members to three-year terms. It is important that the CRA Board represents the interests of the entire computing research community, and it is CRA’s policy to solicit a broad range of candidates. Candidates are not required to be affiliated with CRA member organizations.

• On January 9, 2012, from the nominations received, the Elections Committee will announce its candidates for the ballot.

• On February 9, 2012, nominations are due for candidates nominated by petition signed by the heads of at least 10 Constituent Member Organizations that are current in dues payment.

The CRA board is a working board, and all members are expected to actively participate. CRA has a relatively small professional staff, and board members have detailed involvement in all major projects. Recent and current projects include:

• Working with the computing research community to envision the future.
• Planning the biennial CRA Conference at Snowbird.
• Conducting the annual CRA Taulbee Survey.
• Conducting other surveys (e.g., departmental budgets, space, personnel).
• Developing workshops on critical policy issues for computing research.
• Thinking strategically about the future of computing education.
• Planning workshops on academic and industrial careers.

CRA by December 2, 2011.
My Experiences as a CIFellow

By Cindy Bethel

Entering the workforce following the support and protection of graduate school can be challenging. These challenges were compounded by a difficult economy with limited prospects for research and academic positions in 2009.

It was such an honor to be selected as one of the 60 inaugural CIFellows out of 526 very worthy applicants. The CIFellows Project was designed to provide new doctoral graduates postdoctoral opportunities to continue research careers and develop new skills to improve their marketability in the academic and research job market.

My dissertation research focused on the use of affect expression in appearance-constrained robots for victim management in robot-assisted urban search and rescue. Though this research was exciting and interesting to me, I wanted the opportunity to learn about different applications for robots and how robots can be used with different populations. The CIFellows Project allowed me the opportunity to explore new research ideas and gain new skills.

As a CIFellow, I started exploring new research interests by working with students in the Social Robotics Laboratory at Yale University and with professionals at the Yale Child Study Center. I assisted with a project that investigated the use of robots for victim management in robot-assisted urban search and rescue. Though this research was exciting and interesting to me, I wanted the opportunity to learn about different applications for robots and how robots can be used with different populations. The CIFellows Project allowed me the opportunity to explore new research ideas and gain new skills.

The preliminary results from this research were promising and the observations indicated that the children (4 to 6 years old) were as likely to share the secret they were told with both the robot and the adult. The children interacted with the robot using similar social conventions they exhibited with the adult (e.g., greeting, turn-taking, etc.). It was exciting to have the opportunity to explore a research track that was high risk with the potential for high reward in a supportive postdoctoral environment without the pressure often associated with the tenure process. It was helpful to have a mentor to share ideas with and discuss the possible pitfalls associated with the development of a new line of research. This investigatory process provided a strong foundation for a new line of research that improved my marketability in an extremely competitive research-oriented job market.

The CIFellows Project provided me with the opportunity to continue my professional development while at Yale University. As part of this program I was able to enhance my education by taking a machine shop operation and safety course so that I could develop the skills necessary to build parts for creating and repairing robots. I was also given the opportunity to participate in a week-long workshop on the latest medical and therapeutic developments associated with Autism Spectrum Disorders. I attended workshops on mentoring to improve my knowledge and skills in teaching and mentoring others in research, science, and engineering environments. Additionally, I attended workshops on writing grant proposals and had an opportunity to co-write a proposal with my mentor.

As part of the program, CIFellows attended an annual research and career mentoring workshop sponsored by the Computing Research Association. The benefits associated with attending these workshops were invaluable for networking and career development. The workshop presenters encouraged the Fellows to make appointments with NSF and other government funding agencies to learn more about the grant proposal process and to meet with Program Managers. By following their advice, I had the opportunity to serve on a NSF review panel.

The CIFellows Project enabled me to gain new skills and to be more competitive in the challenging job market. This year, when academic institutions were receiving 300 to 400 applications for one posted position, I was able to secure an Assistant Professor position in the Computer Science and Engineering department at a research-intensive university. The CIFellows Project provided me with a means to continue to develop my professional skills, remain in the computing research community, and continue to pursue my dream of a career in academics.

In 2009, opportunities to find employment in computing research were extremely limited, and unfortunately that situation has not improved much today, but I am appreciative for the opportunities that the CIFellows Project provided me to continue a career in research that will impact society and make a difference to others.

Cindy Bethel received her Ph.D. in Computer Science and Engineering at the University of South Florida in 2009 under the direction of co-advisors Robin Murphy and Larry Hall. Her research focuses on the areas of human-robot interaction and social robotics. She has spent the better part of the past two years as a Computing Innovation Fellow (CIFellow) at Yale University, working with Brian Scassellati in the Social Robotics Laboratory. This fall, Cindy will begin a tenure-track faculty position as Assistant Professor in Computer Science and Engineering at Mississippi State University.

Notes:
1 For more details about the CIFellows Project, visit http://cifellows.org/
2 http://www.cra.org/resources/crn-onlineview/cifellows_descend_on_washington/

CRA Hosts Tisdale Fellow

CRA was pleased to welcome a 2011 Tisdale Fellow as a summer intern.

Max Cho, a junior at Yale University studying cognitive science, spent eight weeks learning about research and research and technology policy in Washington through his work with the CRA Government Affairs staff and the Computing Community Consortium, and from the other Tisdale Fellows.

The Tisdale Fellowship Program brings college students to Washington for summer internships that explore current public policy issues of critical importance to the high technology sector of the economy. In addition to CRA, other participants in the program include: Applied Materials; Business Software Alliance; Dell Computers; Philips; and Technology CEO Council.

On July 28, CRA hosted a luncheon for the Fellows, after which government affairs director, Peter Harsha, provided an overview of CRA’s activities.

Grace Hopper Celebration of Women in Computing

THEME: “WHAT IF...?”

November 9 – 12, 2011

Portland, Oregon

Oregon Convention Center

http://gracehopper.org/2011/
2010-2011 Computing Research Association Members

Arizona State University (CS)
Auburn University (CSSE)
Binghamton University, SUNY (CS)
Boston College (CS)
Boston University (CS)
Bowling Green State University (CS)
Bradley University (CS)
Brandeis University (CS)
Brown University (CS)
Bryn Mawr College (MCS)**
Butler University (CSS)
Carnegie Mellon University (CS)
Case Western Reserve University (EECS)
Clemson University (CS)
Colgate University (CS)
College of Charleston (CS)
College of William & Mary (CS)
Colorado School of Mines (MCS)
Colorado State University (CS)
Columbia University (CS)
Cornell University (CS)
Cornell University (IS)**
Dallastown Area School District (CS)
Dartmouth College (CS)
DePaul University (CISD)
Drexel University (CS)
Drexel University (IT)
Duke University (CS)
Emory University (MCS)
Florida Institute of Technology (CS)
Florida International University (CS)
Florida State University (CS)
George Mason University (CS)
George Washington University (CS)
Georgia Institute of Technology (CS)
Georgia Institute of Technology (CE)
Georgia Southern University (CS)
Georgia Tech (CS)
Georgetown University (CS)
Georgia Institute of Technology (CS)
Georgia Institute of Technology (EE)
Georgia Institute of Technology (CSE)
Georgia Southern University (IT)
Georgia State University (CS)
Girard College (MCS)
Harvard University (CS)
Hobart and William Smith Colleges (MCS)
Illinois Institute of Technology (CS)
Indiana University School of Informatics and Computing
Iowa State University (CS)
Iowa State University (EECS)
Johns Hopkins University (CS)
Johns Hopkins University (ID)
Juniata College (IT & CS)
Kansas State University (CS)
Kent State University (CS)
Korea Advanced Institute of Science & Technology (CS)
La Salle University (CS)
Lehigh University (CSE)
Louisiana State University (CS)
 Loyola University, Chicago (CS)
Marquette University (CS)
Marymount University (IT)
Massachusetts Institute of Technology (EECS)
Miami University (CS)
Michigan State University (CS)
Michigan Technological University (CS)
Mississippi State University (CS)
Montana State University (CS)
Montclair State University (CS)
Mount Holyoke College (CS)
National University of Singapore (CS/IS)
Naval Postgraduate School (CS)
New Mexico State University (CS)
New York University (CS)
North Carolina State University (CS)
Northeastern State University (CS)
Nortwestern University (CS)
Ohio State University (CS)
Ohio State University (CSE)
Ohio University (EECS)
Old Dominion University (CS)
Oregon State University (EECS)
Pennsylvania State University (CS)
Polytechnic University (CS)
Pomona College (CS)
Portland State University (CS)
Princeton University (CS)
Purdue University (CS)
Regis University (CS)
Rensselaer Polytechnic Institute (CS)
Rice University (CS)
Rochester Institute of Technology (CS)
Rutgers University, Busch Campus (CS)
Rutgers University, Camden (CS)
Saint Louis University (MCS)
Santa Clara University (CS)
Singapore University (CS)
Singapore Management University (CS)
Southern Polytechnic State University (CS)
Stevens Institute of Technology (CS)
Stony Brook University, SUNY (CS)
Swarthmore College (CS)
Syracuse University (CS)
Tecnologico de Monterrey, ITESM, Monterrey Campus (ITHE)
Texas A&M University (CS)
Texas A&M University, Corpus Christi (CS)
Texas A&M University (CS)
Texas A&M University, College Station (CS)
Texas A&M University (CS)
Texas A&M University, Galveston (CS)
Texas A&M University, Kingsville (CS)
Texas A&M University, San Antonio (CS)
Texas A&M University, San Antonio (CS)
Texas A&M University, San Antonio (CS)
University of Alabama (CS)
University of Alabama at Birmingham (CS)
University of Alabama, Tuscaloosa (CS)
University of Alberta (CS)
University of Arizona (CS)
University of Arkansas (CS)
University of Arizona at Little Rock (CS)
University of British Columbia (CS)
University of California (CS)
University of California, Berkeley (EECS)
University of California, Berkeley (EMS)
University of California, Davis (CS)
University of California, Los Angeles (CS)
University of California, Riverside (CS)
University of California, Santa Barbara (CS)
University of California, Santa Cruz (CS)
University of California, Santa Cruz (CS)
University of Central Florida (EECS)
University of Chicago (CS)
University of Colorado, Boulder (CS)
University of Delaware (CS)
University of Denver (CS)
University of Hawaii (CS)
University of Houston (CS)
University of Idaho (CS)
University of Illinois, Chicago (CS)
University of Illinois, Urbana-Champaign (CS)
University of Illinois, Urbana-Champaign (CS)
University of Iowa (CS)
University of Kansas (EECS)
University of Kentucky (CS)
University of Louisiana at Lafayette (CACS)
University of Maine (CS)
University of Maryland (CS)
University of Maryland, Baltimore Co (CSEE)
University of Maryland, Baltimore County (IS)
University of Massachusetts, Amherst (CS)
University of Massachusetts, Boston (CS)
University of Massachusetts, Lowell (CS)
University of Miami (CS)
University of Michigan (EECS)
University of Michigan, Ann Arbor (CS)
University of Michigan, Dearborn (CS)
University of Minnesota (CSE)
University of Mississippi (CS)
University of Missouri, Columbia (CS)
University of Missouri, Kansas City (CS)
University of Nebraska at Omaha (CS/IST)
University of Nebraska, Lincoln (CS)
University of Nevada, Las Vegas (CS)
University of Nevada, Reno (CSE)
University of New Hampshire (CSE)
University of New Mexico (CS)
University of New Mexico (EECS)
University of North Carolina at Chapel Hill (CS)
University of North Carolina at Chapel Hill (CS)
University of North Carolina, Charlotte
University of North Dakota (CS)
University of North Texas (CS)
University of Notre Dame (CSE)
University of Oklahoma (CS)
University of Oregon (CS)
University of Pennsylvania (CS)
University of Pittsburgh (CS)
University of Pittsburgh (CS)
University of Puget Sound (MCS)
University of Rochester (CS)
University of South Alabama (CS)
University of South Carolina (CS)
University of South Florida (CS)
University of Southern California (CS)
University of Southern California (CSE)
University of Texas, Austin (CS)
University of Texas, Brownsville (CSE)
University of Texas, Dallas (CS)
University of Texas, El Paso (CS)
University of Toledo (CS)
University of Utah (CS)
University of Virginia (CS)
University of Washington (CS)
University of Washington, Bothell (CS)
University of Washington, Tacoma (CS)
University of Waterloo (CS)
University of Wisconsin, Madison (CS)
University of Wisconsin, Milwaukee (EECS)
University of Wyoming (CS)
Utah State University (CS)
Vanderbilt University (EECS)
Villaanova University (CS)
Virginia Tech (CS)
Wake Forest University (CS)
Washington State University (EECS)
Washington University in St. Louis (CSE)
Wayne State University (CS)
Western Michigan University (CS)
Williams College (CS)
Worcester Polytechnic Institute (CS)
Wright State University (CS)
Yale University (CS)
York University (CS)

Lab and Center Members
Microsoft Corporation (Sustaining Google (Supporting Member)
IBM Research (Supporting Member)
National Security Agency (Supporting Member)
AT&T Labs
Avaya, Inc.
CA Labs
Computer Science Research Institute
Fujitsu Laboratories of America, Inc.
FX Palo Alto Laboratory
Hewlett-Packard Company
IDA Center for Computing Sciences

Intel Corporation
Lawrence Berkeley National Laboratory
Mitsubishi Electric Research Labs
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Sun Labs, Oracle
Telcordia Technologies
Yahoo! Labs

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Association for the Advancement of Artificial Intelligence
Association for Computing Machinery
Canadian Association for Computer Science (CACS/AIC)
IEEE Computer Society
Society for Industrial and Applied Mathematics
USENIX Association

*Indicates new member in 2009-2010
accompanying the CJS bill, the committee lists “American innovation and competitiveness” among a very short list of “areas of highest priority.” They note that “[t]hese investments lead to innovation and improve the competitiveness of American businesses, leading, in turn, to positive impacts on the quality of life for all Americans.”

Both the Commerce, Justice, Science and the Energy and Water bills move to the Senate where the Senate intends to pass its own versions under slightly higher budgetary caps. Differences between the bills would normally have to be worked out in conference in the fall, before the end of the fiscal year on September 30. However, Congress has been unable to reach resolution of the appropriations process under that so-called “regular order” in recent memory, and the chances of that occurring this year are generally assumed to be remote. It is more likely that the House and Senate will fail to reconcile on the bills individually and will be forced to consider most or all of the 12 annual appropriations bills necessary to fund the functions of government in one giant omnibus bill at year’s end.

As occurred with the FY11 appropriations, final passage of the must-pass FY12 appropriations bills will likely be another opportunity for leaders of both parties to wrangle for budgetary concessions, much as they did during the debt-limit debate (another piece of “must-pass” legislation). This could push the final resolution of the bills well into December, January or even later. At about the same time, federal science agencies should have a better sense of their future funding prospects as a result of the deal reached on August 2 to end the federal debt-limit crisis. Under the debt-limit deal, the leadership of both parties in the House and Senate is to appoint a group of six Democrats and six Republicans to a Joint Select Committee on Deficit Reduction, charged with finding ways of raising revenues or reducing the costs of entitlement programs. If the committee fails to come up with recommendations, or the House and Senate fail to pass them in an up-or-down vote, there is a series of automatic triggers would activate, imposing two tranches of cuts across the board to discretionary spending. One of the two cuts is the most worrisome to the science advocacy community. The first would call for a $917 billion across-the-board cut to discretionary spending over the next 10 years. Much of that cut would come from reductions in defense spending, and it is heavily loaded into FY14 and beyond. The second, more troublesome cut is a required $1.2 trillion reduction effective in FY13. Members of the Joint Committee will be responsible for deciding how to spread that reduction around to the various agencies. While there are no hard-and-fast estimates of its potential impact on federal science agencies, analysis from within and outside the science community suggests that agencies like NSF and DOE would likely endure cuts of anywhere from 7 to 11 percent in their FY13 budgets should the automatic cuts trigger. But it is unclear whether those automatic cuts will be activated. As this goes to press, members of the Joint Committee have not yet been named. There is a chance that members of the committee will come up with ways of increasing federal revenues and changing federal entitlement programs that enjoy enough support in Congress to avert the automatic triggers. But that is hard to imagine given the current levels of polarization in both chambers.

In fact, a recent study of the current makeup of Congress by National Journal determined that the current Congress is the most polarized the body has been in 30 years. The study found that there are currently no Republican members of the Senate more liberal than any Democrat in the chamber, and no Democratic Senator more conservative than any Republican. Maybe more remarkably, in the House, there are only five GOP Representatives more liberal than any Democratic member in the House. And of the 98 “middle of the road” Democrats who faced election in November 2010, 55 lost their seats.

Whether science agencies can find support in this tough fiscal environment is an open question—a question made more difficult to answer by the complete lack of a “middle” in Congress and the timeline is becoming clearer. The Joint Committee is required to have its recommendations for saving the $1.2 trillion by November 23, 2011, and Congress is required to vote on the recommendations by December 23, 2011. If the recommendations are not accepted—and if Congress doesn’t decide to change the rules to this process—the cuts to agencies begin January 2, 2012.

Check with the Computing Research Policy Blog (http://crp.org/blog) for all the latest as these dates approach.

Human Resources Program Manager
Computing Research Association

The role of the Program Manager is to support the CRA in the development and execution of programs that benefit the computing community by increasing participation and diversity in computing research. Specific tasks include the following (not exhaustive):

- Work with CRA volunteers to plan, design and implement new and existing programs.
- Oversee, track and provide updates of all related activities (including assessment and evaluation of programs).
- Plan and coordinate all aspects of telephone and in person professional meetings, workshops and special events.
- Participate in committee and program meetings, on the telephone and in person, traveling several times a month.
- Assist committee members in securing funding for various programs.
- Write proposals and reports, including the development and implementation of budgets.
- Manage all federal and foundation funding for committees.
- Facilitate communication between and among external and internal constituencies.
- Work closely with volunteers and the webmasters to develop promotional materials, newsletters and web content.
- Increase visibility of the organization through presentations at conferences, development of promotional materials and collaborations with other groups.

The selected candidate will work closely with the chairs of the CRA committees, particularly CRA-W; he or she will support.

This position requires the ability to work independently and with significant autonomy. Initiative, organization, maturity, accounting experience and judgment are vital to this position. The staff member must operate under pressure in a busy office and maintain comprehensive control of a multitude of projects simultaneously, while pushing all projects to timely completion and providing continual updates on the status of each project to the appropriate stakeholders. Reliability and good communication skills are key requirements. A strong interest in computing research and its impacts is important. Availability to travel often to various meetings is necessary.

This is a non-research position. It is a position working with and supporting the computing research community.

Desired background:
1) Experience working with the computing research community
2) Financial management and accounting experience in a non-profit environment; particularly experience with the National Science Foundation’s processes and procedures.
3) Demonstrated organizational and communication skills

Applications and inquiries to: employment@cra.org
2011 Undergraduate Researcher Awards Presented

CRA’s 2011 Outstanding Undergraduate Researcher Awardees were recognized for their accomplishments in a number of different venues this year.

Princeton University honored its four CRA awardees during Class Day on May 30. Recognized were the Female Winner, Valentina Shin, and Male Winner, Patrick Wendell. Honorable Mentions were presented to Kay Ousterhout and Michael Ty. Patrick also was honored at the NSDI 2011 meeting in Boston on March 30. Male Winner Peter Bailis and Honorable Mention Linfeng Yang received their awards at the end-of-year luncheon at Harvard University on April 25. Peter was also recognized in May at the Workshop on Hot Topics in Operating Systems (HotOS) in Napa, CA. At Tufts, Male Runner-Up Max Leiserson and Honorable Mentions Sarah Cannon and Sean Kelley received their awards during a departmental reception on May 4.

Rice University recognized Male Runner-Up Mitchell Koch at a departmental luncheon on April 20. Scott Rixner presented the award on behalf of Devika Subramarian, Mitchell’s advisor.

Princeton University student awardees at Class Day Event: (L to R) Kay Ousterhout, Patrick Wendell, Valentina Shin, and Michael Ty.

Harvard University Winner Peter Bailis (R) receives his CRA award from Matt Welsh, Program Chair of the USENIX Workshop on Hot Topics in Operating Systems in May.

Runner-Up Mitchell Koch received his award at a departmental luncheon at Rice University.

Linfeng Yang received his Honorable Mention award at the end-of-year departmental luncheon at Harvard University.

Sarah Cannon (L) was recognized for her CRA Honorable Mention award at a departmental reception at Tufts University. Congratulating her is department head Carla Brodley.

Sean Kelley is pictured at the Tufts reception where he received his Honorable Mention award.

Max Leiserson (R), Tufts University, received his Runner-Up award at a departmental reception at Tufts University. He is pictured with one of his nominators, Professor Benjamin Hescott, who made the presentation.
Carnegie Mellon University  
Computer Science  
Postdoctoral Position on Ensemble Programming  
We are seeking applications for one postdoctoral position in a project aimed at developing a usable and reliable programming language for large distributed ensembles of agents. The position is based on the Qatar campus of CMU, with travel to Pittsburgh.  
Applicants should have a strong background and interest in some combination of multi-agent/term rewriting, concurrency, massively distributed systems, programming language design and implementation, linear logic, logic programming or swarm robotics.  
Additional information and application instructions at: http://www.qatar.cmu.edu/lssim/projects/circle/  
Cold Spring Harbor Laboratory  
Computational Postdoctoral  
Research Position  
Cold Spring Harbor Laboratory is an equal opportunity employer. Women and minorities strongly encouraged.  
George Mason University  
Department of Computer Science  
Ten Assistant Professor  
The Department of Computer Science in the Volgenau School of Engineering at the Fairfax, VA campus of George Mason University invites applications for a non-tenure track instructional faculty position at the rank of Assistant Professor beginning Fall 2011.  
The position is in information security and assurance. Minimum qualifications for the position include a Ph.D. in Computer Science or a related field, research and/or industrial experience in information security and assurance, and a commitment to high quality teaching.  
The department has over 45 faculty members with wide-ranging research interests. Security research at George Mason is involved in access control methods and models, authentication, network security, intrusion detection and prevention, computer security, operating systems security, vulnerability analysis, malware analysis and defense, anonymity and privacy, security theory, and security policy. For more information on the department, visit our Web site http://cs.gmu.edu/.  
For full consideration please submit application and all supporting materials online at http://jobs.gmu.edu (position number F9312). To apply, you will need a statement of professional goals including previous teaching and research experience, a complete C.V. with publications, and the names of three references. Review of applications will begin immediately and continue until the position is filled.  
GSM offers an excellent opportunity/affirmative action employer. Women and minorities strongly encouraged.  
The Henry M. Jackson Foundation (HJF)  
Department of Computer Science  
Faculty Position  
The Henry M. Jackson Foundation (HJF) is seeking junior and senior scientists to join the U.S. Army Medical Research and Materiel Command's Biotechnology High Performance Computing Software Applications Institute (BHSAI) located on the Fort Detrick campus of the U.S. Army Medical Research and Materiel Command.  
BHSAI provides scientific, technical, and programmatic support services to the BHSAI.  
The principal areas of focus are 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, data mining, data mining, data visualization, machine learning, and applications of these methods to problems in high-dimensional data.  
BHSAI is located in Frederick, Maryland, and offers a highly competitive salary, an excellent benefits package, and opportunities for continued research and professional growth in a dynamic, interdisciplinary environment.  
Applicants should have a Ph.D. in a related discipline and a strong publication record. The candidate is expected to have successfully mentored multiple projects, involving a diverse and interdisciplinary team of scientist across multiple laboratories.  
International Maritime Telecommunications Organization (IMT)  
IMT Institute for Advanced Studies Lucca  
Computer Science and Applications Research Area  
Scholarships, Housing, Meals in Computer Science and Engineering PhD Program  
IMT Institute for Advanced Studies Lucca is an international Graduate School and Institute of Technology that acts as a research university with the aim of forming human capital—specifically with regard to its Ph.D. programs—in disciplines characterized by their high potential for concrete application.  
IMT Lucca has opened a call for confidence expressions of interest for tenured positions in:  
• Computer Science, Mathematical Statistics, Machine Learning, Large Scale Data Mining  
We will consider highly qualified candidates working at the intersection between computer science, physics, information theory, and mathematics, who combine a strong theoretical background with an orientation towards research on processing huge amounts of complex data in the analysis of socio economic, technical, or biological. Candidates must have an excellent record of high-impact international publications. They should have demonstrated remarkable ability in leading research groups, as well as experience in conducting/overseeing/coordinate international projects.  
Preference will be given to candidates active at the intersection between algorithms, theory, and applications, in the following fields: analysis and modeling of systems, communication protocols, event-driven, and distributed systems. (Internet, computer science or engineering degree, prior experience with research/development work on parallel and distributed systems software projects, deep knowledge of operating systems interfaces, experience with high performance languages and programming, ability, and excellent verbal and written skills. Familiarity with device drivers, Linux or BSD kernels, runtime libraries, Linux or BSD kernels, run-time and provisioning (OAM&P).  
Applications are invited for a 2-3 year computational postdoctoral research position in the Schatz Laboratory at Cold Spring Harbor Laboratory. The researcher will develop methods for large-scale DNA and RNA sequence analysis related to human and/or plant genetics, such as developing methods for discovering de novo mutations related to autism, or for developing methods for discovering de novo mutations related to autism.  
Applications are invited for a 2-3 year computational postdoctoral research position in the Lab of Dr. S. Sharon at Cold Spring Harbor Laboratory. The researcher will develop methods for large-scale DNA and RNA sequence analysis related to human and/or plant genetics, such as developing methods for discovering de novo mutations related to autism, or for developing methods for discovering de novo mutations related to autism.  
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DEAN VOLGENAU SCHOOL OF ENGINEERING

George Mason University seeks an experienced and exceptional leader for the position of Dean of the Volgenau School of Engineering to begin in July of 2012. The Dean provides professional education and administrative leadership for the School.

About George Mason University: George Mason is a public university located in the heart of Northern Virginia’s technology corridor, just outside Washington, D.C. which makes Mason a mission-driven research university with a domestic and international presence. The School of Engineering and Computer Science is home to more than 700 students in a top-ranked engineering school in the next decade, and the successful applicant will lead the School into a new B.S. in bioengineering and a new Bioengineering Department. The faculty are active in research, with $12.7 million in research expenditure last year. The School has developed and maintained strong partnerships with northern Virginia IT companies. These partnerships benefit students and strengthen the School’s academic programs and ensure that our graduates are well-prepared for the workforce. The School’s high-quality faculty and programs make it well-poised to be a top-ranked engineering school in the next decade, and the successful applicant will lead the School in fulfilling that aspiration.

Additional information about the Volgenau School of Engineering can be found at: http://volgenau.gmu.edu/

Candidates for the position of Dean should have significant academic leadership experience in at least one field represented among the academic programs of the School, while also having substantial experience in at least one large array of fields in the facility. Candidates must have at least five years of experience as a university-level academic dean or professor. Candidates should have a record of secure teaching and research productivity, and should have experience in the strategic planning and operational management of a large academic institution. They should have a strong commitment to the development of a strong research program, and participate in the Institute’s service and outreach activities. Successful candidates will have a commitment to sustainable development, and the successful candidate will work with the School and its partners to develop a new B.S. in bioengineering and a new Bioengineering Department.

Masdar Institute of Science and Technology, located in Abu Dhabi, U.A.E., is a private, non-profit, independent, graduate-level, research-driven institute developed with the support and cooperation of Massachusetts Institute of Technology (MIT). The Institute’s goal is to develop, over a period of years, indigenous R&D capacity in Abu Dhabi, addressing issues of importance to the region in critical areas such as renewable energy, sustainability, environment, water resources and microelectronics.

Masdar Institute invites graduate degree programs (MS & PhD) in science and engineering and sustainable technologies (See http://www.masdar.ac.ae/ and http://web.mit.edu/index.html). The Institute offers graduate degree programs in the Institute's service and outreach activities. Successful candidates will have a commitment to sustainable development, and the successful candidate will work with the School and its partners to develop a new B.S. in bioengineering and a new Bioengineering Department.

Candidates should have a completed doctorate in a field related to the School's strategic plan, strong familiarity with the broad array of fields in the school, and a strong commitment to sustainable development. They should have a strong commitment to the development of a strong research program, and participate in the Institute’s service and outreach activities. Successful candidates will have a commitment to sustainable development, and the successful candidate will work with the School and its partners to develop a new B.S. in bioengineering and a new Bioengineering Department.

Masdar Institute has full-time, open-rank (i.e., Full, Associate, or Assistant Professor) faculty positions. Successful candidates will have an outstanding record in research or potential to become world-class researchers. We encourage applications from candidates with a strong background in all areas of computer science and related disciplines. Candidates must also have an interest in applying their research to areas related to sustainable development, broadly defined. Examples of relevant research application areas include, but are not limited to: algorithms and data structures, control, optimization, machine learning, network science, energy, sustainable systems, artificial intelligence, transport, and sustainable technologies (See http://www.masdar.ac.ae/ and http://web.mit.edu/index.html). The Institute invites applications for several tenure-track positions at the assistant, associate, or full professor level. We also invite applications with a wide variety of teaching and research interests. We are particularly interested in applicants in the following areas: Information Security, Cyber Security, Forensics, Archival Studies and Digital Preservation & Curatorship. The successful candidate will have a completed doctorate in a relevant field, evidence of excellence in teaching and research and an interest in working in a highly collaborative, interdisciplinary faculty. To apply for this position, please apply online at: www.drexeljobs.com/apply/ and search for position number 4229.

Masdar Institute offers a competitive salary package, relocation allowance, health insurance benefits and a comprehensive benefits package. Candidates will have an outstanding record in research or potential to become world-class researchers. We encourage applications from candidates with a strong background in all areas of computer science and related disciplines. Candidates must also have an interest in applying their research to areas related to sustainable development, broadly defined. Examples of relevant research application areas include, but are not limited to: algorithms and data structures, control, optimization, machine learning, network science, energy, sustainable systems, artificial intelligence, transport, and sustainable technologies (See http://www.masdar.ac.ae/ and http://web.mit.edu/index.html). The Institute invites applications for several tenure-track positions at the assistant, associate, or full professor level. We also invite applications with a wide variety of teaching and research interests. We are particularly interested in applicants in the following areas: Information Security, Cyber Security, Forensics, Archival Studies and Digital Preservation & Curatorship. The successful candidate will have a completed doctorate in a relevant field, evidence of excellence in teaching and research and an interest in working in a highly collaborative, interdisciplinary faculty. To apply for this position, please apply online at: www.drexeljobs.com/apply/ and search for position number 4229.

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must have:

- conduct research independently, and
- be proactive with a can-do attitude, able to think as thought-leaders by the international community.

Successful candidates are expected to:

- have a PhD. in Computer Science or related field(s)
- have a strong publication record in top journals such as Science/Nature/PRL.
- have knowledge in quantum algorithms, quantum information, and quantum circuits.
- have experience in software development and implementation of algorithms using e.g., C/C++, Java, Matlab, or Octave and excellent problem solving skills.
- have experience in adiabatic quantum computing.

The candidate must demonstrate the ability to build among a research program and perform quality teaching.

Interested candidates should submit a covering letter, a CV and a list of three references to:

mroetteler@nec-labs.com.

Applications will be reviewed on a continuing basis until the position is filled. Applications received by the closing date will receive full consideration.

For more information, please visit: https://jobs.msu.edu/
Professional Opportunities

University of Chicago Department of Computer Science Faculty Positions

The Department of Computer Science at the University of Chicago invites applications from exceptionally qualified candidates in all areas of Computer Science for faculty positions at the ranks of Professor, Associate Professor, Assistant Professor, and Instructor. The position requires a Ph.D. in Computer Science or a related field such as Mathematics or Statistics. To ensure fullest consideration of your application all materials must be submitted before December 1, 2011. Applications should be received by November 19. However, screening will continue until all available positions are filled.

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

University of Chicago Department of Computer Science Postdoctoral Scholar - Large-Scale Systems

The Department of Computer Science at the University of Chicago invites applications for postdoctoral scholar positions in the fields of technology, economics, and business. The selected scholar will work on projects related to the Large-Scale Systems group at the University of Chicago. The position requires a Ph.D. in Computer Science or related field and requires compliance with the University’s non-discrimination policies.

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Sandia National Laboratories Postdoctoral Appointment-Computer Science/Applied Mathematics Researcher

Computer Sciences Group at Sandia National Laboratories is looking for a postdoctoral researcher to work on graph modeling and analysis. A Ph.D. in computer science, mathematics, statistics, or a related area is required. Candidates must complete all requirements for a Ph.D. in the relevant field of study. The position requires a Ph.D. in Computer Science or related field, strong performance skills, and US person status. More information can be found at www.computer.com/careers/careers/software-engineer.html.

The University of Georgia College of Agricultural and Environmental Sciences

Applications are invited for a tenure-track position at the rank of Assistant Professor, PhD, College of Agricultural and Environmental Sciences, Athens, Georgia, 30602-4435. The University of Georgia is an equal opportunity/affirmative action employer.

To apply, submit an application letter, curriculum vitae, and a teaching statement and names of no more than three references to: www.uga.edujobs. The Large-Scale Systems Group led by Professor Chris Lehman at the University of Chicago is seeking a postdoctoral scholar to work on projects related to the Large-Scale Systems group at the University of Chicago. The position requires a Ph.D. in Computer Science or related field and requires compliance with the University’s non-discrimination policies.

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Syracuse University School of Information Studies (SIS) Tenure-Track Position

We seek scholars whose research focuses on the intersection of computer science and social science involving language and textual data analysis for developing new insights into the social, political, and economic issues of our time. The Department of Computer Science is the hub of a larger, diverse computing community of two hundred researchers focused on advancing computer science and driving the most advanced applications. The Department of Computer Science at the University of Chicago is a vibrant, interdisciplinary department that includes computer science, statistics, mathematics, and artificial intelligence. The Department is ranked among the top 10 in the world, and its faculty members are active in research and teaching across the campus in such areas as mathematics, natural language processing, bioinformatics, logic, molecular engineering, and machine learning.

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

Toyota Technological Institute at Chicago (TTIC)

Applications are invited for a tenure-track position at the rank of Assistant or Associate Professor. The Department of Computer Science at the University of Chicago invites applications from exceptionally qualified candidates in all areas of Computer Science for faculty positions at the ranks of Professor, Associate Professor, Assistant Professor, and Instructor. The position requires a Ph.D. in Computer Science or related field such as Mathematics or Statistics. To ensure fullest consideration of your application all materials must be submitted before December 1, 2011. Applications should be received by November 19. However, screening will continue until all available positions are filled.

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Computing Research News

September 2011

Professional Opportunities

The Information School

The Information School at the University of Washington is seeking outstanding individuals to fill tenure-track positions in the areas of Information Management and Digital Youth.

Successful applicants will find Penn to be a stimulating environment conducive to professional growth and interdisciplinary collaboration.

The Information School

Applications should be received by January 1, 2012; or September 1, 2012. Positions to start September 1, 2011; positions are filled.

The University of Washington is an equal opportunity/affirmative action employer. Women, minorities, individuals with disabilities, and members of other underrepresented groups are encouraged to apply.

The University of Pennsylvania is an equal opportunity/affirmative action employer. Women, minorities, and members of other underrepresented groups are encouraged to apply.

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