A plan for Computing@Margins?

On Feb. 18 and 19, GVU and the School of Interactive Computing hosted a workshop (see item under General News) devoted to articulating a national research agenda for Computing at the Margins. Attending that event were (pictured, left to right) graduate students Deepak Jagdish, Vasudhara Kantroo, Waleed Manzoul, Amha Mogus and Anna Mansour.

Research News

Financial Dashboard for January 2010

<table>
<thead>
<tr>
<th>2009 YTD New Awards</th>
<th>Proposed Contracts for January 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15,995,887</td>
<td>Total 3 $763,280 CSE 14% IC 86%</td>
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</table>

Newly Awarded Contracts for January 2010

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Value</th>
<th>PI</th>
<th>Co-Pls</th>
<th>Title</th>
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<tbody>
<tr>
<td>NSF</td>
<td>$541,113</td>
<td>Andrea Thomaz</td>
<td>None</td>
<td>CAREER: Socially Guided Machine Learning</td>
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<tr>
<td>Verisign</td>
<td>$30,000</td>
<td>Nick Feamster</td>
<td>None</td>
<td>DNS Traffic Patterns: Verisign DDOS Traffic Analysis and IP Scoring Systems</td>
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Grants/Gifts Received for January 2010

<table>
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<tr>
<th>Sponsor</th>
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<th>Title</th>
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<tr>
<td>GTF</td>
<td>$40,000</td>
<td>Mary Jean Harrold</td>
<td>None</td>
<td>ADVANCE Professor - Harrold</td>
</tr>
<tr>
<td>Intel</td>
<td>$60,000</td>
<td>Karen Liu</td>
<td>None</td>
<td>Multi Model Sec Location Determ &amp; Verif</td>
</tr>
<tr>
<td>Intel</td>
<td>$60,000</td>
<td>Karsten Schwan</td>
<td>None</td>
<td>Eff Exec Environ Heterog Virtual Mach</td>
</tr>
<tr>
<td>Innosight</td>
<td>$400</td>
<td>Brian Jones</td>
<td>None</td>
<td>Aware Home Research Initiative</td>
</tr>
</tbody>
</table>

**People@CoC**

**Nersessian In Demand to Talk Creativity and Science**

Regents’ Professor Nancy Nersessian (IC) gave the keynote address, “Creativity in the Wild: Conceptual Innovation on the Frontiers of Science,” at ICC-CC X, the first International Conference on Computational Creativity, held in Lisbon, Portugal, on Jan. 7. On Jan. 20, she gave an invited address in the inaugural lecture series, “Creativity in the Age of Technology,” at the recently founded Center for Values in Medicine, Science and Technology at the University of Texas at Dallas. The topic was “How Do Scientists Think? Creativity in Conceptual Innovation.” Also while in Dallas she did a live interview on creativity in science and engineering on “Think,” a radio program on the local NPR affiliate KERA.

**Sherrill, Yeung Earn Time on ORNL Supercomputer**

Professors David Sherrill and P. K. Yeung (CSE) were both recipients of computer time grants on the Cray XT at Oak Ridge National Laboratory (ORNL) as part of the Department of Energy's Innovative and Novel Computational Impact on Theory and Experiment (INCITE) program. Sherrill is part of a catalysis consortium awarded 75 million processor hours to perform simulations aiding the rational design of next-generation catalysts; his group will also use the allocation to develop parallel algorithms for quantum chemical computations. Yeung is part of a team awarded 20 million processor hours to study turbulent mixing in non-stratified and stratified flows. The grant will allow simulations with as many as 64 billion grid points.

**Chandramowlishwaran Wins Best Paper at IEE Parallel Conference**

Ph.D. student Aparna Chandramowlishwaran will receive the Best Paper award in the software track at the upcoming IEE International Parallel & Distributed Processing Symposium (IPDPS) conference, to be held in Atlanta, April 19-23. The paper is a collaboration between Chandramowlishwaran and Assistant Professor Rich Vuduc (CSE) at Georgia Tech and Kath Knobe at Intel. It is the first detailed performance evaluation of a relatively new parallel programming model, called Concurrent Collections (CnC), on state-of-the-art multicore systems. The paper shows the potential of the CnC model and raises a number of questions about how the programming model should evolve for more complex programs. Professor David Bader (CSE) is a member of the IPDPS organizing committee.

**Ph.D. Students Win Grants, Fellowships at GT Research Conference**

Several CoC graduate students took home awards from the Georgia Tech Research & Innovation Conference (gtRIC) 2010, held Feb. 8. The event is meant to showcase the richness of research being conducted by master's and Ph.D. students at Tech; top authors of submitted abstracts must be grad students, though undergraduates can participate under the direction of their grad student mentors. The conference also is intended to facilitate research communication and collaboration among students, as well as spark innovation in their research projects.

Ph.D. student Yevgeniy Medynskiy won one of gtRIC's top prizes, a two-year fellowship worth $5,000 per year, for his poster presentation “Salud!: A Platform for the Deployment and Testing of Health Self-management Applications.” Medynskiy is advised by Professor Beth Mynatt (IC). Also winning $2,000 travel grants were four more CoC doctoral students: Marshini Chetty, Matthias Grundmann, Matthew Flagg and Grant Schindler.

Ram Delivers Invited Talk on User-Generated AI at Stanford
Associate Professor Ashwin Ram (IC) was the invited speaker on Feb. 1 at Stanford University's Media X Philips speaker series. Media X is Stanford's catalyst for industry and academic research partnerships on the impact of information and technology on society. In his talk, Ram addressed the ubiquity of user-generated content on the Internet and how users are increasingly called upon to help design their own experiences (such as gamers designing their own avatars for immersive virtual worlds). AI, Ram said, is the one aspect of computer games that typically is not at least partially created by users, and he considers it the next “big frontier” in gaming. He discussed a few techniques, including those related to character-level and game-level AI, that can enhance the player experience.

Freeman to Venture FORTH for Memorial Lecture in Greece
Dean Emeritus Peter Freeman will deliver the second Stelios Orphanoudakis Lecture at the FORTH research center on March 22 in Crete, Greece. FORTH (Foundation for Research and Technology - Hellas) is one of Greece’s largest research centers, with seven locations around the country and headquarters in Heraklion, Crete. The lecture is named for Stelios Orphanoudakis, late professor of computer science at the University of Crete and director of FORTH's Institute for Computer Science from 1994-2004. In his talk, "The Interaction of Science and Society as Illustrated by the Internet," Freeman will talk about the context of modern research, sketch the history of the Internet, illustrate some of the crucial interactions between society and the Internet as it has developed, and speculate on some possible futures.

Ram Paper Appears in Computational Intelligence
A paper coauthored by Associate Professor Ashwin Ram (IC) recently appeared in the journal Computational Intelligence. The paper, "On-Line Case-Based Planning" presents a novel case-based planning architecture that addresses problems that can arise when some computer games (such as real-time strategy games) create challenges to traditional planning and machine-learning techniques. Computational Intelligence is one of the top journals in the field of artificial intelligence.

Best Wins Class of 1934 Award for Interdisciplinary Research
In February Assistant Professor Mike Best (IC) received Georgia Tech’s Class of 1934 Outstanding Interdisciplinary Activities Award, bestowed annually to “faculty who have made significant interdisciplinary contributions to teaching and research.” Best, who has a joint appointment in the Sam Nunn School of International Affairs, was nominated by fellow IC Professor Irfan Essa, who wrote in his nomination letter: “[Best] has not only successfully navigated the interdisciplinary [aspects] of his field, he has helped establish it and made it into an academic discipline. I have seen many a student convert to his direction of research and not only work with him, but also volunteer to spend time in different parts of the world engaging in field work related to these efforts.”

"Many universities these days talk about the importance of interdisciplinarity. What constantly amazes me about Tech is how this talk is so boldly put into action, and this award really underlines for me that action-oriented commitment," Best said. “My work is in equal measure about building new things, and not just studying things that others have built. My students develop new computer software systems and occasionally even bits of hardware. It’s this rich interdisciplinary mix of computer science and social sciences that is the very essence of our research.”

CS Undergrad Among InVenture Prize Finalists
Christopher Stuckey, BSCS ’09, was named one of the finalists for Georgia Tech’s second annual InVenture Prize competition. Stuckey’s invention, “FandomU,” is described as a “computer program that connects people in interest-based collectives.” He will appear along with seven other projects and 21 other young inventors at the InVenture Prize finals, to be held at 7 p.m., March 17, in the Ferst Center. The finals will be broadcast live on Georgia Public Broadcasting and co-hosted by CNN reporter Miles O’Brien and Bahareh Azizi, a 2005 Ph.D. graduate of Georgia Tech who hosted the PBS TV pilot show “Science Investigators,” which highlighted current technological advances.

3 CoC Faculty Earn Promotions in FY10
Three College professors were approved in February for promotions by the Office of the Provost. They included:
  - Sasha Boldyreva (CS), promoted to associate professor and awarded tenure
  - Gabe Loh (CS), promoted to associate professor and awarded tenure
  - Jim Rehg (IC), promoted to full professor
All of the promotions will be effective July 1. Congratulations to Sasha, Gabe and Jim!

Personnel Announcements
Sanjay Chandrasekharan has joined CoC as a Post-Doc in IC effective 2/1/10. His email address is schandra@cc. Welcome Sanjay!

Anthony Tang has joined CoC as a Visiting Research Scientist I in IC effective 2/17/10. The email address is tonyt@cc and is located in KACB 3337. Welcome Anthony!

Sheila Williams’ last day at CoC was 1/6/10.

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**General News**

**GTACM Gears Up for Yahoo! Hack Week, March 9-13**

The Yahoo! Hack Week, organized on campus by GTACM, is back for another week of learning, competition and fun. This year’s Hack Week will be held March 9-13, and there are opportunities for CoC faculty to help out. GTACM is looking for speakers on two panel discussions devoted to cloud computing and mobile computing, and there are also vacancies for judges. Categories for hacks include Hack for Good, Metro (front page apps), Best Mobile, User Experience & Design, Hardware Hack and Best Overall. For more information or to volunteer for Hack Week, contact GTACM President Christopher Sladky.

**TSO Brownbag, March 8, to Focus on Security**

On Monday, March 8, TSO will host a brownbag presentation on security and appropriate use of Georgia Tech computers and other equipment. CoC’s Keith Watson will be joined by Richard Biever from OIT to talk about the Institute’s policies regarding professional use and personal use of equipment. The event will be held at noon in Klaus 1116W. For more information, contact TSO HelpDesk Manager Brian Crowell.

**Workshop Aims for Clarity Around Computing at the Margins**

On Feb. 18 and 19, the GVU Center and the School of Interactive Computing hosted a Computing at the Margins workshop. Sponsored by NSF and chaired by professors Beki Grinter, Mike Best and Keith Edwards, the workshop’s goal was to produce a report for NSF that articulates a case for a national agenda around Computing at the Margins. The event focused on three goals: developing “grand challenges” that could guide multi-institution, multi-disciplinary research for many years; articulating the scientific hurdles that must be tackled to make significant progress toward those longer-term goals; and defining a set of approaches and suggested testbeds for this work.

Also featured was a panel discussion that provided lively debate about what “Computing at the Margins” is and where it is heading. Panelists included Bonnie Nardi, Department of Informatics, University of California, Irvine; Cliff Lampe, Department of Telecommunication, Information Studies and Media, Michigan State University; Phoebe Sengers, Information Science Program and Department of Science & Technology Studies, Cornell University; and Ramesh Srinivasan, Department of Information Studies, UCLA.

**GVU, IC Host 9th Annual INTERACTIVITY@GT Event**

On Feb. 22, GVU and the School of Interactive Computing presented INTERACTIVITY@GT, the ninth annual showcase of HCI and digital media M.S. students for industry visitors looking to fill spots for internships or post-graduation employment. With sponsorship from Roundarch, more than 50 students participated in this “reverse career fair” attended by 29 companies.

**CoC Schools to Host Own PhD Recruiting Weekends**

For the first time, this spring each of the College’s schools will host its own Ph.D. recruiting weekend. CSE will host its weekend March 4-6, while CS and IC both will host their weekends on March 28-30. Among the events planned are an “explore Atlanta” day (CSE), a poster session in Klaus (CS) and a school-wide party hosted by Associate Professor Thad Starner (IC). For more information, contact the schools’ respective coordinators for Ph.D. weekend: Patrick Traynor (CS), Andrea Thomaz (IC) and Hongyuan Zha (CSE).

**More Tech Fee Awards for CoC Proposals**

In the second round of Georgia Tech technology fee awards, the College was awarded $23,900 for Associate Professor Blair Macintyre (IC) to enhance a series of courses dealing with media, graphics and games that teach students how development is done in these areas, start to finish.

The return on tech fee proposals for this year was around 88 percent of the total submitted. TSO encourages faculty to take advantage of the tech fee process and develop proposals for the next round of awards. Because the Institute requires all students to own laptops, CoC has begun to shift its focus from general computing labs to more specialized instructional facilities.
In order to support these areas, CoC must increase the number of tech fee submissions, according to TSO. For more information on tech fee proposals, contact Tonya Gordon in TSO.