

Winter/Spring 2010 CSRC Newsletter

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Inside this issue:

Sponsored Student Activities	2
Undergraduate Research Awards	3
CS Education Week	4
Qualcomm and Lockheed Martin Sponsor Activities	4
CS Distinguished Lecturer Series	5
Faculty Awards	5
CSRC Spring Event Information	6

What's New with the CSRC

Welcome to all new and returning CSRC members for the calendar year of 2010. The fall semester of 2009 brought an increase in membership to the CSRC. The Fall 2009 CSRC Career Fair was the largest in recent memory. We were pleased to have so many new companies with us! At our fall events, we welcomed Abraxas Corporation, CSC, Comcast, Excelsior, G3 Technologies, General Dynamics (AIS), Positive Energy (OPOWER), Qualcomm, SAIC, and Sapient. At our fall luncheon, we recognized forty-six scholarship winners. Special

thanks to CGI, HPTi, Lockheed Martin, and NetApp for providing company scholarship funding to our undergraduate students. The CSRC itself awarded over \$26,000 in scholarships through direct funding from CSRC dues and from our Investment in Excellence

Scholarship Fund.

The Fall Career Fair brought over 300 undergraduate and graduate students to Owens Banquet Hall, seeking internships, co-ops, and full-time positions with our CSRC companies.



CSRC Makes Additional \$25K Donation to Investment in Excellence Scholarship Fund

Thanks in part to the growth in the CSRC, we will be making an additional \$25,000 donation to the Investment in Excellence Scholarship Fund. The Investment in Excel-

lence Scholarship was created with an initial endowment of \$50,000 from the CSRC in the winter of 2007. Since then, we have been able to add an additional \$25,000 in each successive year.



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Record CS@VT Attendance at Grace Hopper

During early October, a record number of students from the Department of Computer Science traveled to Tucson, Arizona, to attend the Grace Hopper Celebration of Women in Computing. For a second year, CS@VT was a bronze sponsor of the conference. With the support of company donations from Bloomberg and Lockheed Martin, funding from the department, and additional CSRC funding, CS@VT was represented by a group of seventeen students ranging from first year



freshmen to doctoral students in Computer Science. Three Virginia Tech PhD students, Margaret Dickey-Kurdziolek, Laurian Vega, and Mara da Dilva presented

at the conference during the poster session, a concurrent presentation session and a “birds of a feather” session.



If you'd like to see your company recognized as a sponsor of our student activities, we can help you make that happen!

Bloomberg and CSRC Sponsor CS@VT Teams at ACM Programming Competition

On November 7, CS@VT had five teams competing in the regional round of the ACM International Collegiate Programming Contest. Previous CSRC member Bloomberg provided funding for several teams to attend the competition. When a fifth team was formed, the CSRC provided

additional funding to make sure all CS@VT teams were sponsored. CS@VT competed against teams from a large part of the east coast, including the University of Maryland, Duke, University of Virginia, NC State, UNC—Chapel Hill, Villanova, Temple and West Virginia Univer-

sity. Four of the Virginia Tech teams placed, with the VT1-Weasel Ball team taking eighth place overall. More information on the programming competition can be found at cm.baylor.edu/welcome.icpc. Congratulations to all of our CS@VT teams!

CSRC Sponsors UPE Dues for a Second Year



After noticing a decline in UPE (Upsilon Pi Epsilon) membership, the

CSRC offered to underwrite part of the membership dues for students who

would like to join the illustrious Computer Science Honor Society. This funding helped a large number of students in 2008/9, when UPE had its largest induction class in years.

Due to the success during the 2008/9 academic year, the CSRC is again providing support to UPE for

membership dues. UPE was proud to induct several new members for the Fall 2009 semester.

Congratulations to the newest members of UPE!

Two Undergrad Students Win Research Awards

Two computer science students from the Virginia Tech College of Engineering received honorable mentions in the Computing Research Association's (CRA) Outstanding Undergraduate Research Award competition for 2010.

Jacqueline Addesa, a junior from Lynchburg, Va., is majoring in computer science with a focus on bioinformatics and math with the applied discrete mathematics option. Gabriel Martinez, a senior from Ashburn, Va., is

double majoring: In computer science, with a focus on virtualization, and physics, part of Virginia Tech's College of Science.

Many student nominees were commended for making significant contributions to research projects, while several were authors or coauthors on multiple papers, according to CRA organizers. Other nominees made presentations at industry conferences, produced software artifacts or were involved in summer research

or internship programs, or served as teaching assistants, tutors or mentors, according to a CRA statement.

Article by Steven McKay



Undergrad Jacqueline Addesa Presents Poster at SuperComputing 2009 Conference

Computer Science undergrad Jacqueline Addesa was selected to present at SuperComputing 2009. Her research was quoted on genomeweb.com: In the spirit of teaching an almost 20 year-old dog new tricks, Jacqueline Addesa, a student from Virginia Tech, presented her argu-

ment for using the open source Haskell, a language usually reserved for big commercial applications, in an HPC setting. Addesa compared Haskell to C on multiple sequence alignment jobs, and found that the C code quickly became about 37 times longer than the same

implementation using Haskell, with Haskell running about 2.68 times faster on hefty genetic sequence data sets.

Article by Matthew Dublin

Full article at www.genomeweb.com/blog/more-bio-hpc-highlights-sc09

Scholarships for the 2010/2011 academic year will be awarded in June 2010. If you'd like to provide a scholarship in your company's name, please get in touch with Libby G. Bradford.

CSRC Sponsors Student Travel to SIGGRAPH Asia

Colin Braley, a senior undergraduate student, working in conjunction with Robert Hagan, CS graduate student, and faculty members Drs. Yong Cao and Denis Granin, had a poster accepted at the very large and prestigious SIGGRAPH Asia conference. His poster, titled "GPU Accelerated Isosurface Volume Rendering Using Depth-

Based Coherence," was a continuation of his undergraduate research project "Isosurface Volume Rendering of Time Dependent Data Sets." This project won the first place industry choice award, presented by the CSRC, at the annual VTURCS Spring Research Symposium.

The CSRC was pleased to

help sponsor Colin's travel to this prestigious conference.



Robert Hagan, Dr. Scott McCrickard, and Colin Braley



CS Department Celebrates CS Education Week



The Department of Computer Science

celebrated National Computer Science Education Week. Responding to a U.S. House of Representatives resolution, and joining other educators and companies in the computing field, we were very pleased to participate in this special recognition of the transformative role of

computing and computer science education. Quoting from the the ACM Press Release:

Citing the influence of computing technology as a significant contributor to U.S. economic output, the House resolution calls on educators and policymakers to improve computer science learning at all educational levels, and to motivate increased participation in computer science.

Chosen to coincide with

the birthday of Grace Hopper (12/9/1906), this first national recognition of the importance of computer science education was particularly gratifying to Computer Science faculty and students at Virginia Tech because we have been steadily increasing our efforts in outreach and CS education.

To celebrate, CS students took a study break to have a piece of cake with CS faculty on December 9.

The Annual VTURCS Undergraduate Research Symposium will be held at the end of April. If you are planning a trip to VT at the end of the spring semester, consider being a judge!

Qualcomm Provides Funding to CS Student Groups

One of the CSRC's new members, Qualcomm, has generously provided funding to two Computer Science student groups. CS² (Computer Science Community Service) received funding to provide refreshments for their meetings.

The ACM (Association for Computing Machinery) received funding for their Students Teaching Students Program. The STS program is a series of talks designed to be run entirely by students. Their goal is to expose other students to topics and concepts, such as

jQuery, Python and basic Cryptography.



The ACM



and CS² appreciate the financial support!

Lockheed Martin Sponsors High School Recruiting, New CS Student Ambassadors

In an effort to reach out to high school students, the Department of Computer Science recently started a CS Student Ambassador program. The CS Student Ambassadors will help with on-campus recruiting events as well as traveling to high schools near Virginia Tech, in Central

and Northern Virginia, and North Carolina. Lockheed Martin has provided funding for two years of these high school recruiting trips. In October, Dr. Cal Ribbens, Ms. Libby Bradford, and our student ambassadors visited

Hidden Valley High School in Roanoke, speaking with 58 students in three Computer Science courses. In November, our ambassadors visited the Lockheed Martin facilities in Manassas, Virginia and met with 90 students at Lake Braddock and W.T. Woodson High Schools in Northern Virginia.



Computer Science Distinguished Lecturer Series

The Department of Computer Science at Virginia Tech is pleased to host five eminent computer scientists as part of its 2009-2010 Distinguished Lecture Series. The Center for Human-Computer Interaction (CHCI) is co-sponsoring Dr. Abowd's lecture. The Center for High-End Computing Systems is co-sponsoring Dr. Rosenblum's and Dr. Foster's lectures.



Frances A. Allen, IBM Research Emerita, visited campus on September 11 to give her talk, "High Performance Computers and Compilers: A Personal Perspective."

Dr. Eugene Spafford, Professor of Computer Sciences at Purdue University, delivered his talk "Thinking Outside the Box" when he visited campus on October 9, 2009.



Dr. Mendel Rosenblum, Associate Professor in Computer Science and Electrical Engineering at Stanford University, gave a talk on "The Impact of Virtualization on Modern Computing Environments."



Each speaker visited with faculty members in the department as

well as participating in a meet and greet event with computer science students.

In the spring semester, Dr.



Gregory Abowd, from Georgia Tech, will visit on February 19 to give his talk entitled "Ubiquitous Care: Case Studies in Human-Centered Technology for Health and Education."



Dr. Ian Foster, with Argonne National Laboratory will visit on April 23, to deliver his talk, "Computing and the Future of Medicine."

Dr. Yang Cao wins NSF Career Award



Dr. Yang Cao was recently awarded an NSF Career award for his research titled "Multiscale Stochastic Simulation for Complex Biochemical Systems with Visualization Tools" His abstract:

This project aims to develop efficient simulation techniques for stochastic biochemical models, particularly the cell cycle model. Cell cycle is the sequence of events whereby a living cell replicates its components and divides them between two daughter cells, so that each daughter

has the information and machinery necessary to repeat the process. Cell cycle is related to many diseases such as cardiovascular diseases and cancer. Understanding the molecular mechanisms regulating cell cycle is a major challenge of contemporary cell biology.

Dr. Naren Ramakrishnan Named Distinguished Scientist



Dr. Naren Ramakrishnan, Virginia Tech professor of computer science (CS), is one of 84 professionals worldwide to be recognized as a 2009 Distinguished Member by the Association for Computing Machinery (ACM).

The Distinguished Member Grade recognizes those ACM

members with at least 15 years of professional experience and five years of continuous professional membership who have achieved significant accomplishments or have made a significant impact on the computing field. This year, ACM named nine Distinguished Educators, 17 Distinguished Engineers, and 58 Distinguished Scientists, with Ramakrishnan being one of

the noted scientists.

Ramakrishnan's work is in the area of data mining - the science of processing massive quantities of data to discover patterns and to produce new insights. Recently, Ramakrishnan received a 2009 Hewlett Packard Labs Innovation award, another globally competitive honor.

Article by Lynn Nystrom



The Department of Computer Science is proud to have 10 NSF Career Award winners.

February CSRC Events

Luncheon, Business Meeting, Career Fair



February 8, 2010

All events – Owens Banquet Hall

CSRC Spring Luncheon

11:00 a.m. to 1:00 p.m.

The CSRC Luncheon will be held in Owens Banquet Hall on campus. To assist with parking, the CSRC will be providing a shuttle service from the Chicken Hill parking lots. Additional information will be provided with your packet in late January.

Prior to the luncheon, you will have time to mingle with CS students and faculty attending the

luncheon. This will allow you time to circulate amongst all students attending, prior to sitting down for lunch at your table.

Students pursuing undergraduate research projects and the top students from each of our undergraduate cohorts will be invited to this luncheon.

Spring Business Meeting

1:00 to 2:00 p.m.

During our business meeting, you will receive an update from leaders of our student organizations on their current

activities. You will also hear from our department's leaders about recent news within the department and you will have the opportunity to provide feedback.

Spring Career Fair

5:00 to 8:00 p.m.

The CSRC Spring Career Fair is a career fair for all undergraduate and graduate CS students. We also invite all students on our CS-Interest listserv which includes interested new freshmen from General Engineering.

Panel Speaking Opportunities (Premier members only)



We have opportunities for our premier members to be on panels for several different student audiences:

CS 3604 Professionalism Class

Tuesday, Feb 9, 11:00 to 12:15

Tuesday, Feb 9, 12:30 to 1:45

Juniors and seniors in computer science are invited to ask representatives about their companies, searching for that first full-time position, and the current job market.

CS 4944 Senior Seminar

Tuesday, Feb 9, 5:00 to 5:50

These graduating seniors are moving on to positions in industry or on to grad school. Topics include transitioning to the workplace and career management.

We do have a weather contingency plan, in case of bad weather on the day of the CSRC Career Fair.

www.cs.vt.edu/partnering/weather

Dinner with CS Faculty

Tuesday, February 9

6:00 to 7:30 p.m.

655 McBryde Hall

It has become a CSRC tradition to have faculty join us for dinner on the Tuesday evening of the CSRC events. This spring, we invite you to join us for dinner in 655 McBryde. This dinner will

start at 6:00 p.m., directly following the 5:00 Senior Seminar Panel.

CS Faculty will be invited to attend this event to meet with you, plus have an opportunity to speak with representatives from other companies.



Stop by to visit us on the first floor of McBryde Hall!