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Message from our Department Head Paul Cohen...

Friends, when I wrote my last message, in late 2008, I should have titled it, "Fasten your seat belts. It's going to be a bumpy year." But I didn't know - - no one did -- just how bumpy it would be. The University was cut severely, departments and colleges were moved and merged, and Computer Science lost ten percent of its budget, resulting in the departure of five staff members. And yet, thanks to the hard work of the staff and the faculty, we had a very successful year:

- We recruited Professor David Lowenthal from the University of Georgia, and research professors Clay Morrison and Ian Fasel, from USC and the University of Texas, respectively (see *New Faculty Welcome* for brief biographies). We appointed three joint faculty members: Professor Sudha Ram, from the MIS program in the Eller School of Management; Professor Carole Beal, from Cognitive Science; and Professor Marwan Krunz, from the Electrical and Computer Engineering department.
 - We doubled the number of research proposals from the previous academic year (2007), increased by \$13 million the amount of research we proposed, and tripled our research expenditures. These are noteworthy achievements, given the economic climate.
 - We increased our visibility and outreach activities in several ways: Professor John Kececioğlu served as Chair of RECOMB, the top conference in computational molecular biology. Associate Department Head Suzanne Westbrook was local arrangements chair for the Grace Murray Hopper Celebration of Women in Computer Science, which attracted hundreds to Tucson. She also helped to bring a workshop for K12 teachers to the Hopper Celebration (remarkably, more than 650 teachers applied to attend). Suzanne also led our effort to deliver Computer Science courses over the web. Articles on both of these efforts can be found in this newsletter. Our faculty gave keynote talks at international conferences, and Professor Paul Cohen delivered one of six lectures in the Science that Transforms series sponsored by the College of Science (<http://cos.arizona.edu/next/>).
 - Professor Chris Gniady won a prestigious CAREER award from the National Science Foundation. Professor Bongki Moon was promoted to Full Professor. Professor Christian Collberg's authoritative book "Surreptitious Software" was published. Professor Snodgrass won the Honors College Outstanding Faculty award.
 - Professors Beichuan Zhang and Chris Gniady led the discussions that changed our graduate program from a fairly traditional one based on classes and exams to what we all think graduate school should be: a place to learn research skills. The new program is described on our web site. We also made a broad appeal to friends and colleagues at other universities and were able to recruit some splendid graduate students.
- cont'd page 2...*

- We started the School of Information: Science, Technology and Arts (SISTA). The mission of SISTA is to provide expertise and promote research in computational methods across disciplines, and to teach students to understand the computational aspects of any discipline. We will start teaching courses for BA and BS degrees in SISTA in the 2010 academic year. The development of these courses, which will be a pan-university project, will be funded by an award of \$800,000 from the National Science Foundation (Computer Science faculty Westbrook, Saumya Debray, Cohen and College of Science Dean Joaquin Ruiz are the principal investigators).

Yes, it has been bumpy, but considerable good has come from the turmoil. The organizational changes at the UA, which include the establishment of SISTA, have generally strengthened interdisciplinary alliances. SISTA serves as a locus for computational research and teaching across campus. The new School of Mind, Brain and Behavior, which incorporates Psychology; Speech, Language and Hearing Sciences; Neuroscience; and Cognitive Science, will be a strong research partner for Computer Science and SISTA. Emerging priorities in Computational Biology will probably result in new faculty hires and colleagues. Other emerging areas are cognitive robotics, security, cloud computing, and educational technology.

I think the easiest problems are those that can be solved by spending money, while those that involve attitudes and bureaucracies can be intractable. How fortunate we are, then, to be broke in such good company! The support of the UA administration and other department heads and directors -- none of whom are flush -- towards CS and SISTA, confirms that UA is a fundamentally generous and collegial university. Within CS, I want to commend especially Ana Rodriguez, our business manager; Rhonda Leiva, our graduate program coordinator; John Luiten, director of our labs; and Rebecca Mitchell, our undergraduate academic advisor. Along with Suzanne Collier and Lupe Jacobo, they not only maintained but generally extended our services to students and the UA community, and helped start or support several of the initiatives I mentioned earlier. Some of the faculty have worked especially hard to increase our research funding, others have worked on SISTA, outreach, on-line teaching, and other priorities. It hasn't been an easy year, but it has been a rewarding one. Thanks, everyone.



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Google
Rincon Research Corporation
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Defense Advanced Research Projects
Agency (DARPA)
Air Force Office of Scientific Research
(AFOSR)
Department of Homeland Security
(DHS)
Raytheon/BBN Technologies
SRI International
UA Technology Research Infrastructure
Fund (TRIF)
Computing Research Association (CRA)

Gifts

Lockheed Martin
Cloakware, Inc.
Componentree
Microsoft
IBM



*Thank you!
for your generosity
and support
this year.*

Our SISTA! by Paul Cohen, Director

The economic turmoil and transformation at the University of Arizona produced some new opportunities for the Computer Science Department. The biggest news is the creation of the School of Information: Science, Technology, and Arts (SISTA). All over campus, faculty recognize that their disciplines are becoming more computational but their students aren't prepared. Sometimes the faculty themselves are playing catchup. Important developments in biology, linguistics, philosophy, finance, economics, cognitive science, education, ecology and many other fields are driven by computational ideas and techniques, and by the vast amounts of data now available over the Web. When we proposed the new school, late in 2008, we got a lot of support from the campus community.

SISTA's mission is to provide expertise and promote research in computational methods across disciplines, and to teach students to understand the computational aspects of any discipline. The Computer Science Department thinks of the school not as an offshoot or a rebranding, but as a campus-wide organization to facilitate computational research and education in many disciplines.

SISTA is getting a quick start. In September, the National Science Foundation awarded \$800,000 to Computer Science faculty Suzanne Westbrook, Saumya Debray, and Paul Cohen, and College of Science Dean Joaquin Ruiz, to support the development of the SISTA undergraduate curriculum (<http://uanews.org/node/28265>). The first campus-wide curriculum workshop was held in early December. SISTA has also submitted several large proposals for collaborative research, and recently "earned its first dollar" from a collaborative grant with Prof. Carole Beal (<http://uanews.org/node/23535>).

The challenges for the coming year include developing the undergraduate curriculum, raising awareness of SISTA on campus, and joint hiring between SISTA and academic departments. We expect to offer both BS and BA degrees, and to offer roughly half of the SISTA major courses in Fall 2010, with the rest coming on-line during the 2010 academic year. The BS degree is intended for students who expect to use their knowledge in a scientific job or postgraduate program, so the requirements are more technical and have a more solid mathematical and algorithmic basis. The BA degree extends our idea of a liberal arts education: We live in the Information Age, and a well-educated citizen must understand it. The BA requires less mathematics and fewer technical courses than the BS; however, it does require a minor, encouraging the BA student to specialize in one area where information science, technology and arts makes a difference. The BA minor could well be in studio courses, music, theater, dance, or in any area of humanities, engineering or science. SISTA's courses are novel and forward-looking, and deliberately cut across disciplinary boundaries. For example, biologists work with sequences of base pairs or proteins; linguists work with sequences of phonemes, morphemes or words; geologists analyze sequences of seismic activity and hydrologists analyze sequential borehole data; in business, click-stream and foreign currency data are sequential; and in music there are scores. We all do the same things with sequences: We create them, store them, search for them, discover their internal structure or the processes that generate them, align them, modify them, shatter them into chunks, and so on. Because these are ubiquitous information representations and processes, "Sequences" is an ideal course for SISTA to teach.



Suzanne Westbrook, Fred Hart, and Paul Cohen

The SISTA curriculum will certainly raise awareness of the School on campus, in part because many departments will help to teach the courses. But we also need to encourage joint research proposals and joint hiring of faculty and postdoctoral researchers. We also will start a graduate program during the 2010 academic year. Which brings us back to the economic turmoil with which we started this article: Starting a school is expensive! If you can contribute in any way, please get in touch with Paul Cohen (cohen@cs.arizona.edu). Thank you!



School of Information: Science, Technology, and Arts

New Faculty WELCOME! *by Greg Andrews*



Ian Fasel joined the department in the spring of 2009 as Assistant Research Professor. Ian earned two bachelor's degrees at the University of Texas, Austin, one in Electrical Engineering and one in a personalized Honors program. His PhD is in Cognitive Science from the University of California, San Diego. Before joining us, he did a postdoc at the University of Texas, Austin and spent several months at the University of Osaka in Japan. Ian's research interests are in developmental robotics, cognitive science, human-robot interactions, machine learning, and artificial intelligence.



David Lowenthal joined us in January 2009 as a Professor of Computer Science. Dave got a BS in Computer Science at the University of California, Davis and an MS and PhD in Computer Science from The University of Arizona. He was on the faculty at the University of Georgia from 1996 to 2008. Dave's research and teaching interests are parallel and distributed systems, operating systems, and mobile and power-aware computing.

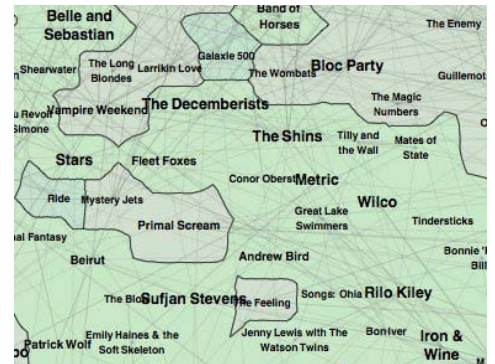


Clayton Morrison arrived in the fall of 2008 as an Assistant Research Professor. Clay got a bachelor's degree in Cognitive Science from Occidental College, an MA and PhD in Philosophy from the State University of New York at Binghamton, and an MS in Computer Science from the University of Massachusetts, Amherst (UMass). Prior to moving to Arizona, he was a research scientist at UMass and at USC's Information Sciences Institute. Clay's research interests are artificial intelligence, machine learning, planning, and cognitive science.

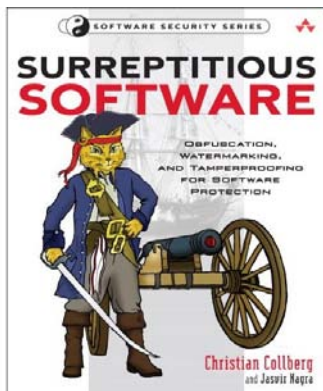
CS Recent Research Projects *by Christian Collberg*

Stephen Kobourov – Associate Professor

While information visualization can be invaluable in making sense out of large data sets, traditional graph visualization methods often fail to capture the underlying structural information, clustering, and neighborhoods. Recently, Prof. Stephen Kobourov has been exploring the geographic map metaphor for visualizing graphs. While graphs, charts, and tables often require considerable effort to comprehend, a map representation is more intuitive, as most people are very familiar with maps and even enjoy carefully examining maps. He has been applying the map metaphor to visualize similarities and recommendations arising from TV shows, Amazon books, and last.fm music.



Christian Collberg - Associate Professor



Professor Christian Collberg and Jasvir Nagra (of Google Inc.) have published a new book in Addison-Wesley's software security series, titled *Surreptitious Software*. The book shows how to implement software protection schemes ranging from code obfuscation and software fingerprinting to tamper-proofing and birth-marking, and discusses both the theoretical and practical limitations of these techniques.

For more CS Featured Research visit: <http://www.cs.arizona.edu/research/featured/>

**Congratulations to our Spring 2009
PhD Graduates in completing their Doctoral degree!**

Dengfeng Gao



Haifeng He



Alejandro E. B.



Joe Fowler



Travis Wheeler



Dengfeng Gao – Dissertation:

Supporting the Procedural Component of Query Languages over Time-Varying Data

** Currently employed with IBM*

Haifeng He – Dissertation:

Memory Footprint Reduction of Operating System Kernels

** Currently employed with Microsoft*

Alejandro Estrella-Balderrama – Dissertation:

Simultaneous Embedding and Level Planarity

** Currently employed with Google*

Joe Fowler – Dissertation:

Unlabeled Level Planarity

** Currently employed with University Wisconsin-Milwaukee*

Master of Science Degrees: 20 Awarded

Bachelor of Science Degrees: 52 Awarded

Expected Fall 2009 PhD Graduate

Travis Wheeler – Dissertation:

Efficient Construction of Accurate Multiple Alignments and Large-Scale Neighbor- Joining Phylogenies

** Currently employed with Howard Hughes Medical Institute – Janelia Farm Research*

Master of Science Degrees: 3

Bachelor of Science Degrees: 26

University of Arizona
Fall 2009 Winter Commencement
Saturday, December 19, 2009 - 9:30 am – McKale Center

1st Annual Graduate Student Symposium by Wesley Kerr



On October 30, 2009, the University of Arizona Computer Science department hosted its first annual Graduate Student Symposium. The symposium is an exciting new forum for U of A's CS graduate students to present, obtain feedback, and receive recognition for their world-class, unpublished research. The call for participation in the symposium first went out in early September and all graduate students were invited to submit a three page paper describing their research. We gathered 10 papers from many areas of computer science, including computer vision, artificial intelligence, networking, and software engineering. Each paper was reviewed by a faculty member and at least two peers. Reviewers recommended each paper to be presented as either an oral presentation or a poster presentation. The presentations took place on October 30 and were well attended by students and faculty from the department.

Certificates of recognition and gift certificates to the U of A bookstore were awarded in four categories. We also hope to purchase several perpetual plaques that will contain the names of the winners in each category. The award for best paper was determined by the reviews given by faculty and graduate students. Awards for best poster and presentation were selected from a ranked vote by faculty and student attendees. The best reviewer award was selected by the authors of the submitted papers.

The program committee would like to extend their gratitude to the authors who submitted work and the reviewers who provided valuable feedback. Without them the graduate student symposium wouldn't have been a success.

Best Paper: *Xin Zhao* - On the Aggregatability of Router Forwarding Tables

Runner Up: *Kyle Simek* - Fitting 3D Plant Structure to Images using Stochastic Context Free Grammars

Runner Up: *Joseph Roback* - Gossamer: A Lightweight Approach to Using Multicore Machines

Best Presentation: *Daniel Hewlett* - Towards Fully Unsupervised Morphology

Runner Up: *Joseph Roback* - Gossamer: A Lightweight Approach to Using Multicore Machines

Runner Up: *Cheng Yi* - GreenTE: Power-Aware Routing

Best Poster: *Somu Perianayagam* - Rex: A Toolset for Reproducing Software Experiments

Runner Up: *Juan Antonio Raygoza Garay* - Autosomal Informative SNPs Panel Selection for Ancestry Prediction using Mutual Information

Runner Up: *Wesley Kerr* - Mining Prepositional Verb Concepts from Sensor Dynamics

Best Reviewer: *Daniel Hewlett*

Submissions:

- *Joseph Roback* - Gossamer: A Lightweight Approach to Using Multicore Machines
- *Kyle Simek* - Fitting 3D Plant Structure to Images using Stochastic Context Free Grammars
- *Cheng Yi* - GreenTE: Power-Aware Routing
- *Xin Zhao* - On the Aggregatability of Router Forwarding Tables
- *Daniel Hewlett* - Towards Fully Unsupervised Morphology
- *Somu Perianayagam* - Rex: A Toolset for Reproducing Software Experiments
- *Wesley Kerr* - Mining Prepositional Verb Concepts From Sensor Dynamics
- *Jeremy Wright* - Enenymys, and the Search for Arch-Enenymys
- *Juan Antonio Raygoza Garay* - Autosomal Informative SNPs Panel Selection for Ancestry Prediction using Mutual Information
- *Quing Ju* and *Varun Khare* - Detecting Large-scale Route Leak Events

Thank you to all our faculty and student reviewers for their time and support!

Undergraduate Student Spotlight!



Fall 2009 Outstanding Senior - *Loren Chea*

Dear fellow Computer Science friends,

My name is Loren Chea and I am honored to be the CS Fall 2009 Outstanding Senior. I have had a wonderful experience with the CS program the past few years and will be joining the Master's program for CS here at the UA. Barring any setbacks, I will be graduating this December 2009. As that pinnacle achievement nears, I've suspiciously had more time to reflect upon my time here as an undergrad, along with the successes and failures which accompanied it. Had I the chance to go back and tell myself some of the things I know now, here is what I might say.

Hi Loren:

This is future you speaking. I know you're currently somewhere in your Computer Science undergrad career right now and I also know that you really want to be some sort of software or game developer. But there's still quite a bit of road to travel between now and landing that first paycheck with Microsoft, Google, or Blizzard.

The first piece of advice is to get an internship. Don't think you have the time, huh? You do. Contrary to popular belief, it isn't essential to living that you play video games for hours each day. If you learn to just moderate that time, you could manage to scruff up enough hours in a week to put towards an internship program. Remember, it's the *experience* that is invaluable (not to mention it'll look good on your currently empty resume). Don't know where to start looking? Try the CS homepage and newsgroups, or even go directly to a company's website and try to get information or contacts. The point is: Be proactive, and success usually has a way of revealing itself.

The next and last token of advice is (yeah, there are only two points of advice. What? Future, you don't have all the answers either...) to remain true to yourself and your studies. Here's the part you don't want to hear: At times, the tough is going to get going. And here's the part you already know: if this is what you truly love, don't ever let up and to just keep working at it. You know the feeling (or at least you soon will) when it is 2:30AM and you're still struggling to get that Java/C/MIPS/etc program to work, not to mention an infamous McCann midterm tomorrow afternoon. Take a deep breath and try not to enter panic mode. Continue to work diligently, and things will be okay.

Good luck!

Sincerely,

Future Loren.

I might not know you personally, but chances are if you are a CS undergrad, you probably will encounter a similar experience. Now, cross my name off that letter, fill in yours in place of mine, and give it another read. Hopefully, it will bring some peace of mind and stir up excitement for the adventures in your own future.

Anita Borg Institute for Women & Technology Grace Hopper Conference and K-12 Workshop by *Suzanne Westbrook*



This fall, the Grace Hopper Celebration of Women in Computing conference was held here in Tucson at the JW Marriott Starr Pass Resort from September 30th – October 3rd. With the conference local, approximately 35 of our students and staff were able to attend through volunteering and with generous support from Lockheed Martin, one of the department's Industry Partners, as well as from the CS department and the College of Science. Faculty member Suzanne Westbrook was part of the conference leadership team this year serving as the Local/Volunteer Chair for the conference. This annual technical conference is the largest gathering of women in computing in the world, this year bringing together over 1600 women in all areas of computing from academia, industry, and government. Approximately 700 of the attendees this year were students representing 210 universities and colleges (but UA CS had the most students from one school!).

Our own students, staff, and faculty enjoyed the conference including volunteering to stuff bags before the conference, attending many of the over 100 technical and career sessions and workshops, recruiting graduate students to our program, and with students interviewing with some of the more than 173 companies supporting the conference. Graduate student, Tasneem Kaochar, presented her poster "Issues in Creating an International Internet Classroom - Understanding How K12 Educators Use Online Resources."

Starting with a K-12 Computing Teachers Town Hall at the Grace Hopper conference, the first K-12 Computing Teachers Equity Workshop was held on the day following the conference. One hundred kindergarten through high school computer science and information technology teachers (from 650 applications) who work with under-represented student populations attended the workshop. The keynote speaker was Jane Margolis, author of "Unlocking the Clubhouse" (about increasing the number of female students in the CS department at Carnegie Mellon University) and more recently author of "Stuck in the Shallow End: Race, Education, and Computing," (a stunning examination on access to computer science education as a social justice issue) set the theme for the rest of the day. This event was organized by CS faculty member Suzanne Westbrook, along with Chris Stephenson of the Computer Science Teachers Association, and Anita Borg Institute staff. CS students Marlene Cota, Emily Hartley, Jerrica Jones, and Tasneem Kaochar assisted throughout the day with Emily giving a campus tour for some of the teachers. Sponsors of the town hall and workshop were the National Science Foundation (NSF), Motorola Foundation, and IBM.



New CS Online Classes by Suzanne Westbrook

Last April, faculty member Suzanne Westbrook helped the department obtain a grant from the Anyplace Access for Arizonans Initiative for the UA Computer Science Online program to offer computer science undergraduate classes to place-bound students through the web. Starting in 2009 summer session I and continuing through this fall, seven of our undergraduate classes have been accessible to students who aren't able to attend classes on campus using a combination of video and audio podcasts and material on class webpages. All online classes are offered in parallel with in-person classes and taken in step with the regular semester. In spring 2010, we will offer eight undergraduate courses (CSC 127A, 127B, 227, 252, 345, 352, 425, 477), and will add three graduate courses (CSC 520, 573, 577) to our offerings.

Senior Lecturers Lester McCann, Rick Mercer, and Patrick Homer were the first faculty to take on the challenge over the five-week summer session, learning to create screen capture podcasts and being willing to have their every utterance video recorded and linked to their class pages or iTunesU. Professors Pete Downey, Christian Collberg, and Li Xu (UA-South) joined the effort this fall and section leaders Dave Gallup and Ari Kapilivsky are making their CSC 127A and 227 sections available online. Graduate student Ranjini Swaminathan coordinates all AV activities, managing our student team composed of graduate and undergraduate students, now experts in video recording and file processing (and toting equipment across campus!). In spring, Professors Saumya Debray, John Hartman, and Kobus Barnard will join the fun. This is truly a departmental effort involving faculty, students, and staff (advising, lab, and financial services).



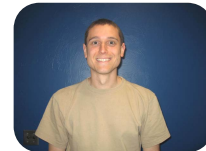
To sign up for classes, go to http://outreachcollege.arizona.edu/ec2k/catalog_dist.asp?heading_id=119 or contact Suzanne Westbrook at sw@cs.arizona.edu for more information.

This grant was made possible through the Technology and Research Initiative Fund (TRIF) through Arizona Board of Regents (ABOR).

Department Awards 2008-2009

Outstanding Senior Award Fall 08: Tasneem Kaochar

Undergrad Student Outstanding Service Award Fall 08: Tasneem Kaochar



Spring 2009

Faculty Teaching Award: Lester McCann

Faculty Outstanding Service Award: Saumya Debray



Staff Outstanding Service Award: Gregg Townsend

COSSAC Star Award: Rhonda Leiva

Graduate Student Research Award: Igor Crk

Graduate Teaching Assistant Award: Jordan Marshall

Grad Student Outstanding Service Award: Ranjini Swaminathan



Outstanding Senior Award Spring 09: Justin Samuel

Excellence in Undergraduate Research Award: Justin Samuel

Undergrad Student Outstanding Service Award Spring 09: Justin Samuel



CS upgrades GS 930 Instructional Lab



Our 930 Instructional Lab equipment is now over 5 years old. Five years ago, a *state-of-the-art* workstation for us meant a Pentium 4 CPU, 80GB hard drive, CD-RO optical drive, and a whopping 1GB of memory! So what's involved in deciding on a replacement workstation for our instructional labs today?

Well, first the system has to be *green*. Green means many things, but the big one for us is power efficiency. The department maintains upwards of 100 instructional workstations in its classrooms and computational labs. Every watt saved is the equivalent of burning a 100 watt light bulb—continuously. Manufacturers such as Dell, HP, and Lenovo are getting better in their product lines, but are not always at the forefront of green technology--especially in their lower end systems.

Second, the system has to be leading edge (not bleeding edge) for CS instructional requirements and has to remain serviceable for as long as possible (3-5 years). A useful life of five years may be straining the limits of believability in a fast technological environment, but three years should be possible with selective choice of leading edge components.

Third, the system has to be multimedia capable and run Ubuntu Linux, which seems to be the popular choice among our student population for their personal computing equipment. Ubuntu Linux allows many of our students to configure their own home systems for use in completing their CS course assignments.

Fourth, the system has to be cost effective. Money is always tight. Instructional workstation costs come directly out of technology fees paid by our students. We are keenly aware of this. There has to be a sensible balance between needs and desires.

This year, as in past years, we've gone out to vendors such as Dell, HP, and the like for quotes. Their low end (cheaper) systems always seem to fall short of our four criteria. What to do? *Build our ideal instructional workstation ourselves!*

In years previous we have purchased components and assembled workstations in-house for both our instructional labs and our faculty and staff. This year will prove no different. Our new 930 Instructional Lab systems will be based on the Intel i7 Lynnfield processor (4 core, hyperthreading, turbo boost CPU), with 500GB hard drive, DVD-RW optical drive, 8GB RAM, USB, Fire Wire, HD sound, Gb Ethernet, Nvidia GeForce 9400 graphics, and an 80 Plus energy star efficient power supply.

This configuration can be purchased and put together in-house by the Lab staff for about 30% cheaper than most vendor-supplied solutions. Best of all, the system power consumption at idle is 49 watts as compare to the previous system's 68 watts—a savings of 19 watts or 28%. Not bad for a workstation that is an order of magnitude or more faster than its predecessor.

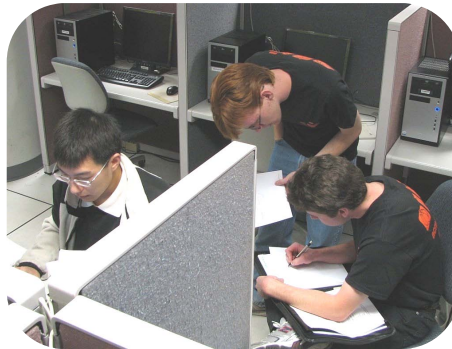


ACM Programming Contest by Patrick Homer

The CS department was one of four host sites for the 2009 ACM Rocky Mountain Regional Programming Contest on October 30th and 31st. The Rocky Mountain Region includes AZ, NM, CO, UT, WY, MO, ID and the Canadian provinces Alberta and Saskatchewan. There were four UA teams among the 53 teams from across the region. The contest consisted of nine problems with a five-hour time limit. Teams had three members and one computer. Teams are ranked first by the number of problems solved. In the event of a tie, teams are ranked by the amount of time they took to finish their problems. Two UA teams finished in the top ten!

Only two teams in the region were able to solve more than four problems. The first place team (from the University of Alberta) finished seven problems. The UA's "The Irrational Fraction Faction" (Brian Lindsay, Fei "Bill" Peng, and Jeffrey Truman) finished in second place. They solved five of the nine problems.

"The Irrational Fraction Faction"



Another UA team, "The Ancient Chinese War Dogs" (Jonathan Nation, Silviu Smarandache, and Josh Snider) finished in fourth place. Six teams solved four of the problems.

Information about the Regional contest can be found at: <http://org.mesastate.edu/acm/rmrc/2009/>. The final standings, the problem set, and the solutions are all available.



Association for
Computing Machinery

Advancing Computing as a Science & Profession

Alumni News by Christian Collberg

Daniel Marashlian (May 2004)

I've been working on two interesting projects lately. I'm the CTO of Pelotonics (<http://www.pelotonics.com>) you can go to the website to get more information on some of the details. But we offer an online service for people to easily organize and manage all of the projects they have going on in work, their life, or organization. It really helps with the collaboration aspect (communication, deliverables, and file repository). It's super simple to use, and it keeps everything organized without thought. From a technology perspective, we've done some things that are unique in the marketplace. We've started to integrate with "top-tiered" applications like Google Docs and Evernote to name a couple. We're going to eventually integrate with GMail, Outlook, Twitter, Mindtouch (wiki software), etc. The whole application is done in .NET.

The Google Docs integration that we're going to launch next week is one of a kind. We did a deep integration with using Google Docs in Pelotonics (your project management tool). All of the permissions sync between the 2 systems, so you don't need to worry if you create a private message with a Google Doc as an attachment. Or if you have a document repository of 1000+ documents and you fire someone, or add someone to the system. All of the permissions will sync in the background. Also, I just started with TweetPhoto, Inc. (<http://tweetphoto.com>). They launched 6 months ago and are already a top 1000 Alexa site in the world and top 500 in USA. We're going to change the way people share and publish photos in the "real-time" web (twitter, facebook, etc). You'll be able to look at your photo on Tweetphoto and with one click have it send out to anywhere you want it to go, Twitter, Facebook, Photobucket, Flickr, etc... We've built a platform not just a website. More than 30 developers have already taken out platform and used it in their applications. Within in the next 6 months we're anticipating 10 times the amount of traffic. Which should bring us to a top 100 website in the world. It's already been a crazy project, as I redesigned the architecture of the website in 2 weeks. And once that's deployed out next week, I'm going to help the guy that just re-architected the database and API for my new website. We need to absolutely make sure that everywhere on every level the code is SUPER efficient because of the amount of traffic we get. The website is in CAKEPHP and has a small MySQL database. The API and main database is in Microsoft; WCF for the API and MSSQL for the database.

Justin Cappos (May 2008)

I'm a Research Associate (Post Doc) at the University of Washington. I run a large project called Seattle (<https://seattle.cs.washington.edu/>) that currently hosts the world's largest open research test bed. I'm kicking off another project that takes a hard look at the security of software updaters.

Alejandro Diaz (May 1998)

I'm in my 9th year here at Sega Studios San Francisco (formerly Secret Level) as a Senior Software Engineer. We will be shipping Iron Man 2 for Xbox 360 and PS3 in a few months in conjunction with the Iron Man 2 movie. Some titles I've shipped include Golden Axe: Beast Rider (Xbox 360/PS3), Iron Man (Xbox 360/PS3), America's Army (Xbox), Karaoke Revolution (Xbox), Star Wars: Starfighter (Xbox/PC), and Star Wars: Jedi Starfighter (Xbox).

Ravi Sharma (May 2008)

Hi, I am working as a Software Developer at Microsoft.

Dave Bakken (August 1994)

I am now an Associate Professor at my undergrad alma mater WSU. I have been working closely with our electric power researchers here for 10 years on rethinking the power grid's data delivery mechanisms, and our analysis and resulting pub-sub system GridStat is having a big impact on the national effort to upgrade the grid over the wide area, called NASPI (www.naspi.org). There should be some very big announcements in the first week of January on this.

Sean Davey (December 2000)

I am currently working for the Southwest Environmental Health Sciences Center in the Pharmacy department and for the GEISHA project (geisha.arizona.edu) in the department of Cell Biology and Anatomy. I mostly write web databases and custom applications for analyzing experiment data. From a Computer Science perspective the work isn't very interesting but it has been fun for me to learn a lot of biology. I have developed a nifty Java framework for writing web databases that I'd like to open source some day but like most programmers I just never seem to find the time to document the thing :-)

Hemanth Gowda (December 2005)

I will soon complete 4 years at Google, so it's been fun and I am enjoying California.

Bhavin Mankad (May 2008)

I am working as Financial Software Developer at Bloomberg, New York. I would just want the readers of the newsletter to know how grateful I am to the CS Department at University of Arizona. The curriculum and lab work for the MS program has prepared me adequately for diving into the professional world. Working here at Bloomberg is very challenging since the company hires only the best of the talent and I am surrounded by people with 10-15-20 years of solid experience in the IT industry. However, because of the thoroughness and depth of the Computer Science program at U of A, I feel in charge of my work. Theory and Programming experience obtained in Programming Languages, Database, Operating Systems and Networking classes have been of tremendous help in my career so far. I wish you and the department good luck for continuing the great work that you are doing.

Richard Saunders (August 1993)

Rich still works in Tucson at Rincon Research Corporation (and has for the last 14 years)! He is always ready to do lunch with old computer science buddies if they are in town. Occasionally, he teaches a Python class at the U of A during the summer, demonstrating his enamor with Python (if he can't program with Icon, Python is a good choice!). Rich is happy to be presenting a paper on Python and C++ at an Open Source conference in Hawaii in 2010: See <http://www.picklingtools.com>. Rich is probably happiest about the Hawaii part.

Bryan 'Plano' Mathews (August 2005)

Working for the past 2 years in San Diego. I'm the Product Manager for VoxOx, a universal communicator coming out of Beta soon that has been getting recognized in many publications. Additionally, we have been receiving awards in our industry.

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