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most significant bits

newsletter of uw computer science & engineering

volume 18, number 1, spring 2008



university of washington



Michael Naiman/Team Photogenic

Bill Gates speaking on April 25, 2008, on the UW campus

Bill Gates Unplugged: On Software, Innovation, and Giving Back

On April 25, 2008, UW CSE and UW President Mark Emmert hosted Bill Gates on the final stop of his 2008 six university tour as he transitioned from Microsoft to the Bill & Melinda Gates Foundation. Earlier in the day, Gates spent an hour with 10 CSE faculty members discussing research topics.

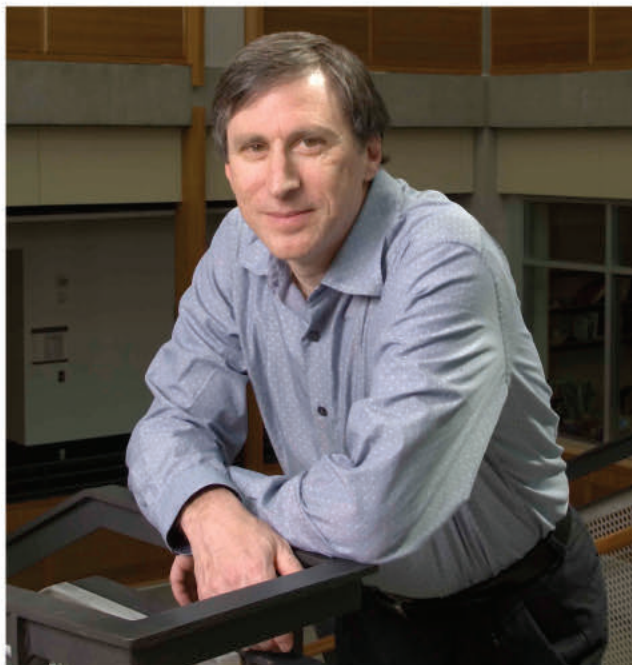
During his talk and the question-and-answer session, Gates covered a wide range of topics. Speaking to an overflow crowd, he recounted how as a boy he and his friend, Paul Allen, roamed the campus looking for computer time. He told students and faculty at the UW about what they imagined then and how much of what they dreamed of is becoming reality.

Gates acknowledged the important relationship he, Microsoft, and the Foundation have with the university. The UW has received more Gates Foundation grants than any other university. Microsoft, in a typical year, hires about 100 people from the UW, making it the top source of talent for the company. He also highlighted work at the UW on collaboration software and an innovative photo-viewing technology that became a Microsoft product called Photosynth.

A link to the UWTV web archive of Gates's UW speech and Q&A session may be found at:

<http://www.uwtv.org/programs/displayevent.aspx?rID=24441&fID=5203>

from where I sit...



It's been a year since our last issue, and there has been a lot of excitement in that time! First, we've been engaged in a number of initiatives that will expand the department and result in the hiring of a substantial number of new faculty, which we expect to catapult the department forward over the next few years. Second, a number of our faculty have been recognized with national-level awards.

One significant new initiative is the creation for the first time of a true daytime masters program in CSE. Focused on our own students, this combined, 5-year Bachelors/Masters program will allow CSE undergrads to stay one additional year and leave with both a Bachelors and Masters degree. Students will apply in their junior year, which will allow them to plan for courses over their 4th and 5th years that will lead to the Masters in computer science and engineering. Students will be able to take graduate coursework as well as additional upper-division undergraduate courses, such as capstone project courses, which are in high demand. The Bachelors/Masters program was just approved this spring and will start this coming fall with a small first class of entering students. Our goal is to grow the program over time to around 30 students per year.

Another important initiative is the creation of ExCEL, the UW Experimental Computer Engineering Lab. The goal of ExCEL is to strengthen computer engineering at UW and to increase collaboration between CSE and EE along the

computer engineering border. Over the next several years, we're expecting at least six new hires in computer engineering through ExCEL. These positions will be joint in CSE and EE, although each new faculty will have a primary home in one of the departments. The first positions were available this year, and candidates were selected by a joint CSE/EE hiring committee. The recruiting season is still in progress at the time of this newsletter.

Over the next five years, we expect to grow our educational programs at all levels: more Bachelors students, new Masters students, and more graduate students. Along with this, we will hire new CSE faculty in addition to the ExCEL faculty who will have joint CSE/EE appointments.

The last year has been an exciting one for us in terms of faculty recognition. Professor Yoky Matsuoka, who joined us two years ago, was honored with a MacArthur Fellowship for her work in neurobotics. Often called the "Genius Award," the MacArthur Foundation selects a small set of scientists, artists, writers, and humanists who show exceptional creativity and promise for future advances to receive an unrestricted \$500,000, 5-year gift from the foundation. Professor Yoshi Kohno received a 2008 Sloan Foundation Fellowship for his work in computer security and cryptography. In addition, Yoshi was honored with a 2007 Technology Review TR35 award -- which identifies young innovators under the age of 35. TR35 also named CSE graduate student Tapan Parikh "Humanitarian of the Year" for his work building technology to help illiterate communities in India manage micro-finance loans. In addition, TR35 recognized CSE Ph.D. alumna Karen Liu (now a professor at Georgia Tech), and CSE affiliate professor Desney Tan (Microsoft Research).

It's been a big year for CSE, and we're looking forward to more excitement in the future as we begin to move forward on some of these new initiatives.

Keep in touch!

Henry M. Levy
Chairman and Wissner-Slivka Chair

we want to hear from you!

Have news you'd like to share with the CSE community?
Have comments or suggestions for future issues of MSB?

Let us know! Email the editors at:

msb@cs.washington.edu

and be sure to visit us online at:

www.cs.washington.edu

MSB is published semi-annually by UW CSE to provide current information about its students, faculty and alumni. MSB is supported by the CSE Industrial Affiliates Program. Volume 18, Number 1 editor was Kay Beck-Benton.

We thank contributors Ed Lazowska, Sandy Marvinney, Hannah Hickey, and Hank Levy. Photo credits include Jon Froehlich, Rodney Prieto, Sandy Marvinney, and Michael Naiman/Team Photogenic.

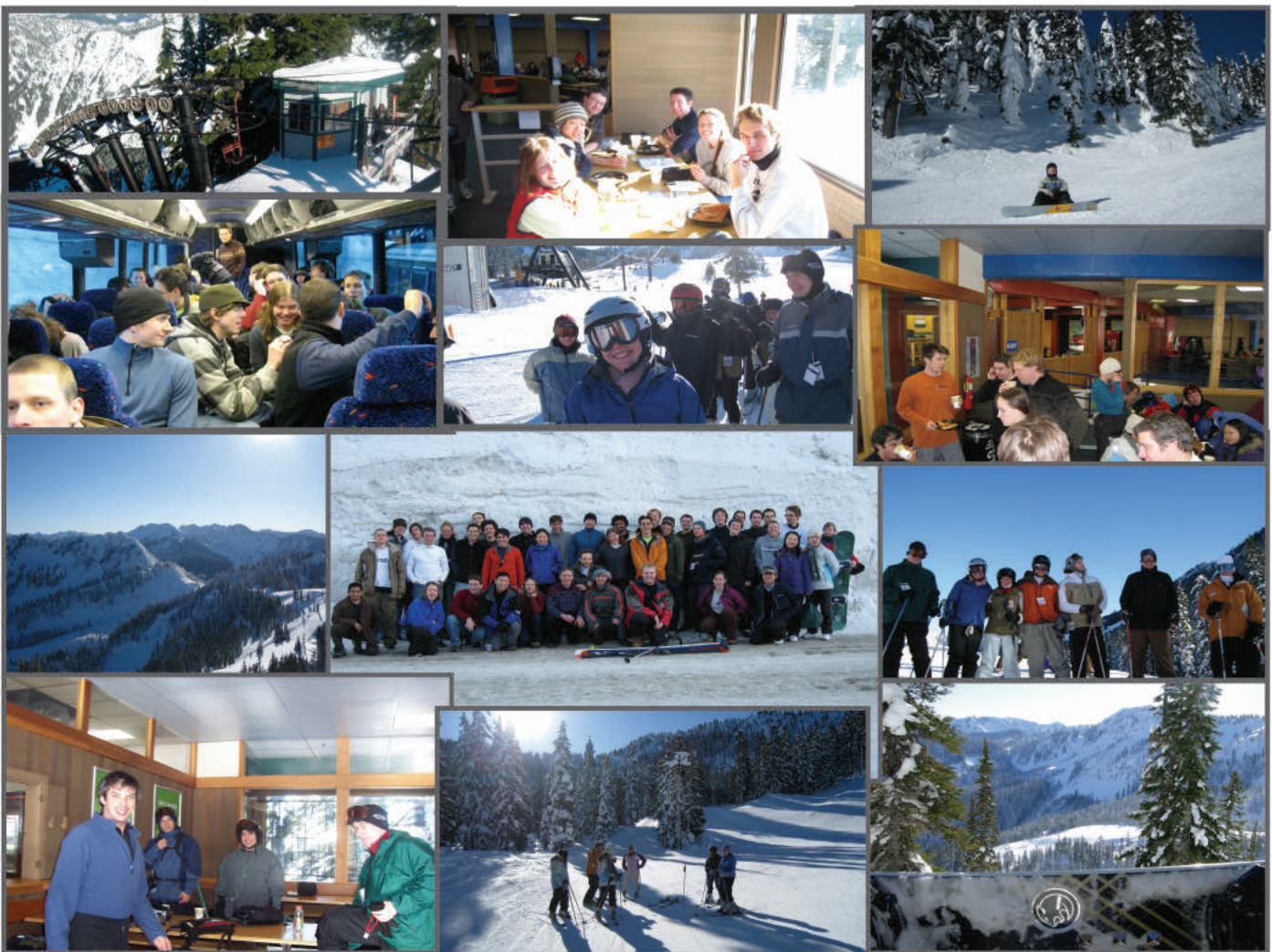
Past and present issues of MSB can be downloaded from www.cs.washington.edu/msb

CSE annual ski day '08

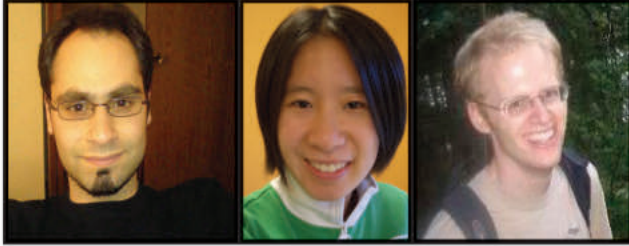
The third annual CSE Department Ski Day was held on January 25th, 2008 at Stevens Pass. Over 60 graduate students, faculty, and staff joined the fun. This year the group rented a ski bus to ease the 70 mile journey to the slopes of Stevens Pass. The CSE skiers and boarders were rewarded with sunshine, clear blue skies, 100 inches of snow on the slopes, and a yummy pizza lunch. Even better, this year's trip featured no broken legs or dislocated shoulders!

More photos from the day may be viewed at:

<http://picasaweb.google.com/cseskiday/CSESkiDay2008>



3 UW CSE undergrads recognized in CRA award competition



UW CSE seniors (l-r) David Pepper, Dana Wen, and Sam Whittle

The 2008 Computing Research Association Outstanding Undergraduate Award competition has recognized 89 students from 54 different universities -- including three from UW Computer Science & Engineering.

CRA's Outstanding Undergraduate Award program recognizes undergraduate students in US or Canadian universities and colleges who show outstanding research potential. In addition to evidence of significant research contributions, the committee also considers the student's academic record and service to the community.

This year, UW CSE seniors David Pepper, Dana Wen, and Sam Whittle were recognized.

David's undergraduate research focused on the creation of a new parallel-processing algorithm for locating a gene within a strand of DNA. Having successfully created a candidate algorithm, its performance must now be tested against the industry-standard. After taking a vacation to Alaska, David will work in the Core OS division at Microsoft.

Dana's undergraduate research related to the Tactile Graphics Project, a UW CSE effort that develops software to automatically translate visual images into tactile graphics that can be utilized by the blind. Most images that are translated into a tactile format are graphs, diagrams, or other images that convey data. Dana's research project involved extending the image-editing software to incorporate a tool that determines an ideal location for Braille labels in each image. After graduation, she will work as a software developer at Zillow.com.

Sam's undergraduate research spanned three areas. He developed numerical approaches to solving inverse network problems. Participating in the 2007 Mathematical Modeling

Contest, his team developed a weighted k-means clustering algorithm to partition a state into connected regions of equal population. The team's resulting paper was judged to be an Outstanding Winner. Finally, he worked with the MobileASL research group, whose goal is to enable Deaf Americans to communicate in American Sign Language over the U.S. cellphone network. He is focused on methods to maintain video intelligibility in the presence of data loss. Sam will work at Google Kirkland.

Since 1999, UW CSE undergrads have been recognized 29 times in the CRA award competition.

Ducks!

Spring brings the return of CSE's young duck family to the plaza outside the Allen Center....



datagrams

WebAnywhere wins Imagine Cup

WebAnywhere has won the Interface Design Accessible Technology Award of the Imagine Cup 2008. WebAnywhere, a project of UW CSE Ph.D. student Jeff Bigham, translates text to audio without the need to install software, facilitating web access by blind users. More info about the service may be found at:

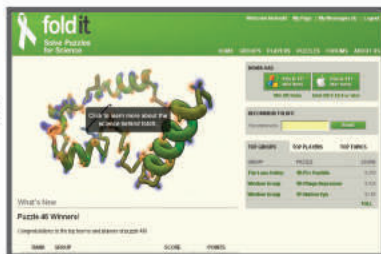
<http://webinsight.cs.washington.edu/projects/webanywhere/>

Prasad Raghavendra wins Best Paper Award, STOC 2008

UW CSE Ph.D. student Prasad Raghavendra has been named co-winner of the Best Paper Award (and winner of the Best Student Paper Award) at the 2008 ACM Symposium on the Theory of Computing.

Computer game's high score could earn the Nobel Prize in medicine

A new game, named FoldIt, turns protein folding into a competitive sport. Introductory levels teach the rules, which are the same laws of physics by which protein strands curl and twist into three-dimensional shapes -- key for biological mysteries ranging from Alzheimer's to vaccines. After about 20 minutes of training, people feel like they're playing a video game but are actually mouse-clicking in the name of medical science. The free program is at <http://fold.it>. FoldIt was developed by UW CSE's Seth Cooper and Adrien Treuille, working with Zoran Popovic (CSE), David Salesin (CSE), and David Baker (UW BioChem & Howard Hughes Medical Institute investigator).



Microsoft Photosynth makes star turn on CSI: NY

Photosynth, a collaboration between UW CSE's computer graphics group and Microsoft, was featured in an April episode of CBS's hit crime drama *CSI: NY*. This is a significant move upturn from the graphics group's other recent television exposure: visualization of "drafting" as part of NASCAR coverage. Photosynth stitches together a large collection of photos and turns them into 3-D images, viewable from any angle. Preview at labs.live.com/photosynth/default.html

Julie Letchner, Kate Everitt win Anita Borg Scholarships

UW CSE Ph.D. students Julie Letchner and Kate Everitt are among 23 nationwide winners of 2008 Google Anita Borg Scholarships. Google established the Anita Borg Memorial Scholarships "to honor the work of Dr. Anita Borg, a computer scientist who dedicated her professional career to increasing

the participation of women and other under-represented minorities in the field of technology."

UW's "Vocal Joystick" named one of "25 leading-edge IT research projects" by Network World

UW researchers (joint research project by Jeff Bilmes (EE) and James Landay (CSE)) have developed software designed to let those who can't work a handheld mouse use their voice instead to navigate the Web. The Vocal Joystick detects sounds 100 times a second, relying on vowel sounds to move in one direction or another and moving faster or slower depending on voice volume. "K" and "ch" sounds are used for mouse clicks and releases. The tool can be used for Web browsing, as well as for playing video games and even drawing on a screen.

UW CSE team wins 1st Pacific Rim Regional Collegiate Cyber Defense Competition

During the two day competition, each student team is presented with a pre-configured networked system that it must operate. The evil red team, which sits next door, attempts to vandalize this network. The student teams need to defend against these attacks. The team with the most points at the end of the two days wins. UW CSE's team members were David Balatero, Janos Barbero, Colin Bayer, Vjekoslav Brajkovic, Alexei Czeskis, Karl Koscher, Travis McCoy, and Michael Skinner.

UW to lead \$6.25 million project creating electronic Sherlock Holmes

The UW will lead a multi-institutional group pushing the limits of computers' ability to interpret data and ultimately predict the behavior of complex systems. The project, involving seven U.S. universities, has received a \$6.25 million, 5-year grant from the Department of Defense. Led by CSE's Pedro Domingos, the group plans to develop a system for the military to look at all the available information that might be valuable and use it to predict behavior.

CSE's Chad Klumb, Pavan Vaswani, and Ting-You Wang score clean sweep of UW academic medals

Each year, the University of Washington awards medals to the students who had the strongest academic record in their class during the previous year. This year, in an unprecedented clean sweep, CSE students won all three medals. The Freshman Medalist (the top student in last year's class of 5500 freshmen) is Chad Klumb. The Sophomore Medalist is Pavan Vaswani. The Junior Medalist is Ting-You Wang.

CSE's Julia Moore, Kathy Wei win Goldwater Scholarships

CSE undergraduates Julia Moore and Kathy Wei have been awarded 2008 Goldwater Scholarships. Goldwater Scholarships are the premier award for undergraduates majoring in engineering and the sciences.

Continued on page 8



Former Microsoft colleagues team up to teach CSE capstone course

Together they logged nearly 37 years at Microsoft, overlapping for a dozen years on the Windows NT team. Now you can find them in CSE labs as teaching cohorts for a senior capstone course on the NT operating system. Real-world learning is a hot educational concept, and Gary Kimura and Mark Zbikowski truly are the real deal for giving students “been there, done that” insights into the inner workings and development of NT, which is used by 800 million people worldwide.

“We can tell the students the history and personalities behind NT and answer their questions about why we did something a certain way,” Zbikowski says. “That might include, ‘Late one night after a few too many beers we decided to ...’”

“Right,” Kimura laughs. “We can explain that something we did was a mistake, and the specific reasons why we had to make some compromises.”

Such insights, plus a rigorous capstone project to modify the source code to make a substantive addition to the NT system, give students a taste of the work done by software architects and developers.

Kimura is a UW computer science alumnus from undergraduate ('78) through doctoral ('84) degrees. His initial foray into the computer industry encompassed four years as principal software engineer at Digital Equipment Corporation in Bellevue, where he designed the overall compiler infrastructure for DEC's PRISM architecture.

Then it was on to Microsoft in 1988 as an original member of the Windows NT team. He designed and implemented the NT file system architecture and later managed the NT file system group of 20 engineers. Kimura took a sabbatical in fall 1999 to teach a software engineering class with David Notkin. “It was a great experience, and I decided to leave Microsoft in early 2000 and volunteer some time to teach for CSE,” Kimura says. He has taught courses in software engineering, data structures and algorithms, operating systems, and the NT capstone.

Zbikowski, who earned his BS at Harvard and MS at Yale, signed on with Microsoft in 1981 as the 55th employee, not far behind Steve Ballmer, a childhood friend from Detroit and fellow Harvard classmate and math major. Zbikowski's path through Microsoft traversed design of the DOS executable file format, development lead and manager for MS DOS 2.0 to 4.0, development manager on the architecture



Retired Microsofties and affiliate professors Gary Kimura (above) and Mark Zbikowski (right) provide CSE students with an opportunity to learn about NT from the creators.

team for OS/2, and by 1998, architect and development manager for NT file systems.

About two years ago Kimura and Zbikowski crossed paths at the Pro Sports Club in Bellevue. Zbikowski had just left Microsoft — the first employee after Bill Gates and Steve Ballmer to log 25 years of service. Kimura promptly recruited him to co-teach the NT capstone class, which is a 20-hour per week volunteer commitment for both.

“Early in my career I was planning to be a professor because teaching is my love,” Zbikowski says. “It's terrific seeing the light go on for students. I benefited from great teachers during my high school and college education and want to give others the same opportunity to learn.”

Kimura has reinforced his commitment to students by establishing the Gary D. Kimura Family Endowed Scholarship in Computer Science & Engineering. The UW has boosted the \$100,000 endowment with a 50 percent match through the Students First initiative. The scholarship will support a student who would not be able to enroll at the UW without financial support.

“A scholarship helped me through my first year at the UW,” Kimura says. “My wife, Christine, and I realize how blessed we are, and it just pains us to learn about smart students who want an education but can't afford it.”

“Gary and Mark are an incredible teaching team. They provide a phenomenal experience for our students, and are also two of the nicest guys in the world,” says Professor Ed Lazowska. “On top of that, Gary's endowment will support and inspire many, many students for years to come.”

2008 Scholars and Fellows honored

Anderson Scholar	In Cheng
Burkhardt Scholars	Jake Englund, Ian Gienger, Kyungil Kim, Laura Pina, Jordon Walke
Boeing Scholars	Katherine Allaway, Carter Butaud, Krysta Yousoufian
Cisco Scholars	Happy Dong, Allison Rutherford
CSE Excellence Scholars	Benjamin Lee, Helene Martin
CSE Departmental Scholars	Christine Acuario, Martin Hecko, Euzel Villanueva, Michael Yamamoto
Cutler Scholars	Jason Salameh, Michael Schmitz, Thomas Sommerville
Denton Scholar	Christine Acuario
Frost Scholar	Ian Gienger
Glerum Scholars	Tobin Gonzales, Jacob Masaki
Golde Scholar	Wei-Ting Liao
Gray Scholars	Ben Carr, Steven Kwan
Hewitt Scholar	Kristin Webber
Kildall Scholars	Chad Klumb, Kathy Wei
RealNetworks Scholar	Jacob Masaki
InfoSpace Scholar	Aron Hershberger
Intelius Scholar	Ben Carr
Microsoft Scholars	Eric Arendt, Melissa Cooper, Jill Edwards, Trevor Head, Wing Yee Lee, Chris Lim, Caitlin Lustig, Robert McClure, Elizabeth Muhm, Samrach Nouv, Erik Torgerson, Helen Ursachii, Vince Zanella
Noe Scholar	Paramjit Sandhu
Tock Scholars	Ben Carr, Peter Vigh
Wisniewski Scholars	Pavan Vaswani, Kathryn Winglee
Yamasaki Scholars	Charlie Tran, Cuijun Wu
Dinning-Wolf Fellow	Punya Biswal
Ling Fellow	Jessica Chang
Faithful Steward Fellow	Brandon Lucia
Hacherl Fellow	Alexei Czeskis
Marilyn Fries Fellow	Tamara Denning
Dean/Hopper Fellow	Erik Andersen
Microsoft Fellow	Saleema Amershi
Weil Fellow	Rahul Garg

Annual scholarship and fellowship luncheon 2008

On May 1, 2008, UW Computer Science & Engineering hosted its annual scholarship and fellowship recognition luncheon, an opportunity to congratulate the outstanding undergraduate and graduate student recipients of these awards, and to thank the generous donors who make these awards possible.

Top public universities such as the University of Washington are in "the opportunity business." Undergraduate Scholarships ensure that a UW CSE education remains accessible to Washington's strongest students, regardless of their means. Washington's "innovation economy" companies should be created and staffed by Washington's brightest kids. This is our commitment, which we are able to fulfill because of donors' generosity.

At the graduate level, UW CSE competes with Stanford, Berkeley, MIT, Carnegie Mellon, and a handful of other programs to attract the finest graduate students in the nation and the world. Our success depends on many factors: the renown of our faculty; the track record of our recent students; the "atmosphere" of our program; our facilities; and the financial support that we are able to offer entering students. Fellowships are particularly important in competing for the very top students, because they provide entering students with a measure of independence and flexibility.

Thank you, our donors, for ensuring that UW CSE remains an engine of opportunity and of innovation. And congratulations to our students, who make us all proud.



datagrams

(Continued from page 5)

Six win NSF graduate research fellowships

Three UW CSE graduate students and three recent UW CSE bachelors alums have been named recipients of 2008 National Science Foundation Graduate Research Fellowships, the top award for graduate students in engineering and the sciences. UW CSE grad student recipients are Laura Effinger-Dean, Brian DeRenzi, and Jessica Chang. UW CSE bachelors alum recipients are Annie Liu (now a grad student at Caltech), Gabriel Maganis (now applying to graduate schools), and Kurtis Heimerl (now a grad student at UC Berkeley).

CSE's Alan Ritter, Tom Lin win National Defense Science & Engineering Graduate (NDSEG) Fellowships

CSE graduate students Alan Ritter and Tom Lin, both working with Professor Oren Etzioni in the Turing Center, have received 2008 National Defense Science & Engineering Graduate Fellowships.

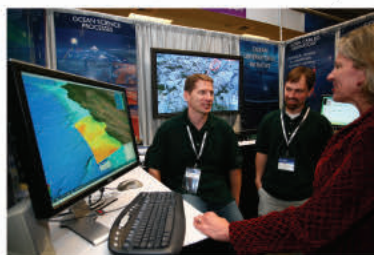
Hackers can attack heart devices

Some medical devices such as implantable cardiac defibrillators and pacemakers are now equipped with wireless technology, allowing for remote device checks and freeing patients from repeated doctor visits. But this convenience may come with unanticipated risks. UW CSE's Yoshi Kohno and others have shown they can wirelessly extract personal medical information from an implantable cardiac defibrillator as well as reprogram or disrupt the device. The team includes Harvard University cardiologist Dr. William Maisel and Kevin Fu of U-Mass, Amherst, also a computer scientist.



UW CSE / UW Oceanography / Microsoft Research collaboration featured at 2008 Microsoft Research TechFest

UW CSE, UW Oceanography, and Microsoft Research are collaborating to create an "Ocean Scientists' Workbench" in connection with the NSF Ocean Observatories Initiative. Keith Grochow (left) of the University of Washington joins Jared



Jackson of Microsoft Research Redmond in showing TechFest visitors the Trident project, designed to provide a workflow workbench for oceanographers.

CRA A. Nico Habermann Award 2008 presented to Richard E. Ladner

This award honors the late A. Nico Habermann, who headed NSF's Computer and Information Science and Engineering Directorate and who was deeply committed to increasing the participation of women and underrepresented minorities in computing research. Ladner, Boeing Professor of UW CSE, is recognized for his lifelong, strong and persistent advocacy on behalf of people with disabilities in the computing community.

DUB dominates CHI 2008

Members of the UW's Design:Use:Build (DUB) Center for Human-Computer Interaction and Design swept the top conference in their field, which explores the interface between human and machine. UW researchers nabbed three out of seven Best Paper Awards selected from more than 700 submissions to this April's CHI 2008 meeting. DUB also had 16 papers accepted, more than any other University. UW contributors included CSE professor Dan Weld; CSE Ph.D. students Susumu Harada, Eytan Adar and Krzysztof Gajos; and double winner Jacob Wobbrock, iSchool assistant professor. The papers' topics ranged from strategies to create computer software that accommodates people with disabilities to ways one could use Internet browsing histories to create more intuitive Web pages.



Stefan Saroiu, Phisher King

UW CSE Ph.D. alumnus Stefan Saroiu, a faculty member in computer science at the University of Toronto, is one of three young faculty members featured on the University of Toronto home page. "We all know now that the 20th century's most influential innovation - electronic communications by way of your computer - has given rise to a whole new breed of criminals. They are the computer hackers who find nefarious ways to use information technology to rob you. Thankfully, computer scientists like Stefan Saroiu are preparing to do battle with these IT pickpockets."

To read the article, see:

<http://www.research.utoronto.ca/edge/fall2007/3.html>

Michael Cohen, Ed Felten named ACM Fellows

UW CSE Affiliate Professor Michael Cohen (a researcher at Microsoft Research) and UW CSE Ph.D. alumnus Ed Felten (a professor at Princeton University) were among 38 eminent computer scientists named 2007 ACM Fellows.

datagrams

(Continued from page 8)

CSE alums Rob Short, Gail Murphy win 2008 UW College of Engineering Diamond Awards

Each year, the University of Washington College of Engineering recognizes a small number of alumni with Diamond Awards. These alumni are chosen by a committee of their peers to be recognized for their contributions as engineers of excellence. The winner of the 2008 Diamond Award for Entrepreneurial Excellence is 1978 UW CSE M.S. alumnus Rob Short, recently retired as Corporate Vice President for Windows Core Technology at Microsoft. The winner of the 2008 Early Career Diamond Award is 1996 UW CSE Ph.D. alumna Gail Murphy, now a Professor of Computer Science at the University of British Columbia.

NCWIT Award for Aspirations in Computing

The NCWIT Award for Aspirations in Computing recognizes young women at the high-school level for their computing-related achievements and interests. Nominations are made in conjunction with local school educators and administrators, and nominees are selected for their demonstrated, outstanding aptitude and interest in information technology/computing; solid leadership ability; good academic history; and plans for post-secondary education. On November 19, NCWIT CEO and co-founder Lucy Sanders and UW CSE professor Ed Lazowska presented the NCWIT Award for Aspirations in Computing to eight wonderful winners from the Puget Sound region: Lenda Nguyen, Melinda Mudd, Nicole Mina Askarian, Kayleigha Holten, Kaitlin McKinnon, Amy Li, Manpreet Kaur, and Nicole Torcolini.



UW senior wins national coding competition

CSE senior Michael Skinner won the Marathon competition of the 2007 TopCoder Collegiate Challenge. He was one of just two Americans among a field of 120 students gathered in Florida for the 2007 TopCoder Collegiate Challenge, held October 30-November 2. The first three rounds of the Marathon competition were held online in August and September. 300 competitors advanced from the first round to the second; 100 from the second to the third; and 8 from the third to the Orlando finals. Across all four contests, 120 collegiate programmers qualified for the Orlando finals. In winning the Marathon finals, he bested competitors from France, Poland, the Russian Federation, Sweden, the United Kingdom, Thailand, and the Netherlands.

CSE Ph.D. alum Rachel Pottinger wins first annual Denise Denton Emerging Leader Award

The Denise Denton Emerging Leader Award is given annually by the Anita Borg Institute to an individual under the age of 35 who has demonstrated a significant leadership capability and positive impact of the lives of women through technology. The award is named in honor of the late Denise Denton, formerly Dean of Engineering at the University of Washington. It's thus particularly wonderful that the inaugural recipient of the Denton Award is UW CSE alumna Rachel Pottinger, now a faculty member at the University of British Columbia. The award was presented at the Grace Hopper Celebration of Women in Computing.

CSE Ph.D. alum Gun Sirer named to Popular Science's "6th Annual Brilliant Ten"

"In 2004, Emin Gun Sirer figured out how to hijack the FBI's Web site. The problem wasn't with the Feds; it was with the structure of the Internet itself. Anytime you type an address like 'www.fbi.gov' into your browser, your request feeds through several servers that act as the phone booths of the Internet. Sirer realized that many of these directories were insecure and that a hacker could easily reroute all traffic meant for the FBI to a malicious doppelgänger site. His modest solution? Reorganize the entire Internet. Sirer created a scheme that eliminates the need for vulnerable central servers by distributing information among thousands of smaller computers. The strategy now helps safeguard Web sites through the PlanetLab worldwide academic network and could someday protect the Web as a whole." Gun is now a faculty member at Cornell University.

CSE's Richard Ladner appointed trustee at Gallaudet U.

Gallaudet University in Washington DC, the world leader in liberal education and career development for deaf and hard-of-hearing undergraduate students, appointed six new members to its Board of Trustees, including CSE professor Richard Ladner. Ladner's contributions to the deaf and hard-of-hearing earned him the 2004 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. His mother, father, and sister are Gallaudet alumni, and he spent a sabbatical year there in 1985-86.

Ph.D. alum Doug Zongker featured at Ig Nobel awards ceremony

The Ig Nobel program included a two-minute speech by keynote speaker Doug Zongker consisting only of the word 'chicken.'

The original YouTube video of his presentation is at:
http://www.youtube.com/watch?v=yL_-1d9OSdk.

Celebrating awards: Innovators and Geniuses

On May 29, the University of Washington College of Engineering sponsored an afternoon of lectures entitled "Innovators and Geniuses," delivered by members of the UW Engineering community who were recognized this year by MIT Technology Review's "TR35" (35 technology innovators under the age of 35) and by the John D. and Catherine T. MacArthur Foundation (referred to as "Genius" Awards).

Three of the five speakers were from UW CSE: faculty members Yoshi Kohno and Yoky Matsuoka, and Ph.D. student Tapan Parikh (who recently joined the faculty at UC Berkeley).

Privacy Respecting Digital Forensics

Yoshi Kohno's work on assessing and improving the security of current and future technologies has been cited in *The New York Times* and *CNN Headline News*. He is an assistant professor in UW CSE and a co-director of the Medical Device Security Center. Kohno has received numerous awards for his work, including the 2008 Alfred P. Sloan Research Fellowship and was recognized by Technology Review magazine as one of the world's top innovators in 2007.



Visit Kohno's web page at:

<http://www.cs.washington.edu/homes/yoshi/>

Designing Appropriate Computing Technologies for the Rural Developing World



Tapan Parikh has been designing and deploying information systems tailored to rural regions of India, Africa, Asia, and Latin America for the past eight years. Parikh's UW graduate work, advised by Ed Lazowska and David Notkin, used cell phones as portable banking systems for microcredit groups in rural

India. Parikh worked on other projects integrating mobile technologies and open-source software to create low-cost, portable tools for agricultural certification and health care diagnoses. Parikh was recognized as one of the "TR35," and additionally received one of two special designations among the TR35: "Humanitarian of the Year." Parikh, who was a

msb p10

UW graduate student at the time of the TR35 recognition, has since joined the School of Information at UC Berkeley as an assistant professor.

Parikh's web page may be viewed at:

<http://people.ischool.berkeley.edu/~parikh/>

Neurorobotics: Interfacing Robot and Nervous System to Understand and Enhance Human Movement

Yoky Matsuoka is transforming our understanding of how the central nervous system coordinates musculoskeletal action, using robotic technology to enhance the mobility of people with manipulation disabilities. Matsuoka, an associate professor, directs the Neurobotics Laboratory. She has received numerous awards for her work, including a MacArthur Fellowship ("genius" award), and was named one of "The Brilliant Ten" in Popular Science in 2007. Matsuoka received a Presidential Early career Award for Scientists and Engineers in 2004 and an IEEE Robotics and Automation Society Early Academic Career Award in 2005.



Visit Matsuoka's web page at:

<http://www.cs.washington.edu/homes/yoky/>

MIT's Technology Review honored two additional members of the UW CSE community who did not participate in the College of Engineering lecture series:



Karen Liu, an assistant professor at the Georgia Institute of Technology, was recognized in part for her computer science doctoral research at the UW. She develops realistic body language for characters in computer animation. Liu received her Ph.D. in 2005 and was advised by Zoran Popovic.

Desney Tan, of Microsoft Research in Redmond, was recognized for using electroencephalography (EEG) signals to operate computers. He is an affiliate professor in UW CSE.



More information about the TR35 award and the winners is available at: www.technologyreview.com/tr35/.

CSE annual inspirational teachers recognition



Every high-performing university student looks back on one or two earlier teachers who played a special role in shaping his or her academic career. Each year we ask our students in UW Computer Science & Engineering to identify high school or community college teachers who were particularly inspirational and encouraging to them. Our goal is to recognize these inspirational teachers; to reconnect them with the students they sent to UW CSE; and to encourage them to send us more outstanding students in the future.

On May 21st, CSE hosted a dinner for these teachers, their guests, and the CSE students who nominated them.

Congratulations to the teachers nominated this year!

<i>School</i>	<i>Nominated Teacher</i>
Cascadia Community College	David Whittaker
Central Kitsap High School	Shahid Ahmed
Central Kitsap High School	Dave Pevovar
Everett High School	Gary Evans
Green River Community College	Janet Ash
Holy Names Academy	Elizabeth Swift
Inglemoor High School	Sean Burrus
Juanita High School	Lisa Dodd
Mead High School	Jason Roberts
Mercer Island High School	Kim Schjelderup
Mercer Island High School	Aaron Noble
Mount Rainier High School	Richard Roths
Newport High School	King Vu
Newport High School	Kim Evans
North Seattle Community College	Natalya Kholomyeva
North Seattle Community College	Steve Anderson

North Seattle Community College	Vince Offenbach
North Thurston High School	Brady Olson
Olympia High School	Jay Elder
Roosevelt High School	Eric Muhs
Roosevelt High School	Judson Miller
Snohomish Senior High School	Eran Gourarie

No. 51 -- CSE senior Linus Chou



Perhaps the most unlikely of football players, Linus Chou, a Chinese-American, is a computer science major. He scored 1500 on his SATs. He interviewed for an internship at Microsoft. Chou jokingly describes himself as the

"biggest Asian this side of the Mississippi." How the Lakeside School product juggles academics and athletics was one of the Huskies' best feel-good stories of this past season.

Although he played football during his high school years, Linus hadn't considered playing football during college. However, during his sophomore year he decided to attempt the nearly impossible: Join the UW football team as a walk-on player. Just making it to tryouts was no easy task. Once he did get a spot in the spring 2005 tryouts, Chou did what he does best — he played. Before he knew it, he was reading a letter inviting him to play for the Huskies, making him the only walk-on accepted that year.

Linus not only made the team; he fought his way up to third-string outside lineman and full-time special-teams player. As a regular on special teams, he played in all 12 games during the 2006 season and recorded a special teams tackle vs. Stanford. Linus is a recipient of the Arthur Ashe Sports Scholar second-team recognition.

In December 2007, Linus was named to first team honors to the 2007 Pac-10 Conference All-Academic football team. To be eligible for selection to the academic team, a student-athlete must have a minimum 3.0 overall grade-point average and be either a starter or significant substitute.

2008 open house and ice cream social

UW CSE's annual ice cream social, an event for our alums and their children, was held on April 26th, in conjunction with the College of Engineering's Open House.



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most significant bits

newsletter of uw computer science & engineering

volume 18, number 1, spring 2008

university of washington

06-0419

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