



ALUMNI NEWSLETTER

DEPARTMENT OF COMPUTER SCIENCE • UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN

SPRING 2007

Ray Ozzie Named Bill Gates Successor as Chief Software Architect

College of Engineering Launches Alumni Social Networking Site

YouTube Founders: Live and In Person at Siebel Center

\$2.4 Million Grant Funds Department of Homeland Security
University Affiliate Center



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Alumni Newsletter

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Editor

Karen Hyman



The Department continues to go from strength to strength. Major media headlines and Wikipedia entries chronicle our achievements. Our alumni's business success has catapulted them into the front pages of major newspapers and onto major magazine covers. A Lexis-Nexis search reveals that hundreds of articles covering Google's acquisition of YouTube herald Steve Chen and Jawed Karim, two of the three founders, as Computer Science alumni, and early employees at PayPal, which was founded by Max Levchin, another of our very visible alumni. Thanks to anonymous Wikipedia contributors on PLATO and UIUC articles, Wikipedia notes "PLATO pioneered key concepts such as online forums and message boards, online testing, email, chat rooms, picture languages, instant messaging, remote screen sharing, and multiplayer online games." – clarifying how our Department and the University were the foundry for all these modern social networking products!

New faculty members and new academic professionals have joined our department to advance our distinguished traditions and adapt to a changing future in which continued automation of intellectual

processes will revolutionize the world. Three new faculty members join us: Chandra Chekuri, an associate professor, from Bell Labs, will enhance our theory group; Sheldon Jacobson, who transferred from another department, will give us strength in operation research; and, finally, Sam King, an assistant professor fresh from Michigan, will advance our work in security and information forensics. We have also created two new positions - Associate Director for Communications and Associate Director for Public Engagement – to serve our communications, corporate relations, and recruiting needs. We welcome Jennifer LaMontagne and Karen Hyman in those respective roles.

The UI system, the campus and the college have commenced their new strategic plan, in which informatics figures prominently. As chair of a committee on a major campus-wide informatics initiative, I am confident that the long term outlook for our discipline is excellent. IT remains fundamental to the productivity growth exhibited by our knowledge-based economy. My confidence is fortified by Bureau of Labor statistics predicting more job openings in IT than in all other science and engineering areas combined. Computing

Research Association (CRA) IT Workforce blogs and (<http://www.cra.org/govaffairs/itworkforce.php>) recent ACM studies on outsourcing. (<http://www.acm.org/globalizationreport/>) also support this optimistic outlook.

Our Department remains ever-mindful of the need to ensure that our curriculum educates our students for the world they will confront upon graduation. A recent Gartner survey (*The IT Professional Outlook: Where Will We Go From Here?* by Diane Morello) makes the following five predictions relevant to our curricular concerns and initiatives:

In 2010, six out of ten people affiliated with the IT organization will assume business-facing roles.

Through 2010, 30 percent of top technology performers will migrate to IT vendors and IT service providers.

By 2010, IT organizations in midsize and large companies will be at least 30% smaller than they were in 2005.

By 2010, ten to fifteen percent of IT professionals will drop out of the IT occupation.

By 2011, seventy percent of leading-edge companies will seek and develop “versatilists” while de-emphasizing specialists.

To prepare students for these future careers – versatile professionals in business-facing roles - we need to carefully balance the need to preserve the technical strength of our education with the need to provide a broader education. It is quite likely that our five year bachelor's- master's program (<http://www.cs.uiuc.edu/undergraduate/programs.php>) will increasingly become the method of choice for achieving both depth and breadth. As alumni immersed in this professional world, your perspective on these changes and on computer science education is very important to us. I encourage you to share your thoughts by contacting me: snir@uiuc.edu



The new year begins for our department with great pride in our 2006 accomplishments, tremendous optimism about our future, gratitude for your support and, of course, abundant resolutions for 2007.

It has been a year of banner headlines for you – our alumni. Our files are bulging with the clever headlines, great headshots, and delicious sound bites which tout your success and illuminate the role of CS in stimulating that success. “It Pays to Have Pals in Silicon Valley,” quipped the NY Times, as it publicized, thanks to Max Levchin, the many start-ups which have grown out of PayPal and the many CS alums amalgamated there. Other national media broadcast the revolutionary success of our YouTube alumni Steve Chen and Jawed Karim as part of the “hard-core smart, hardworking, nonspoiled” kinds of people we cultivate (TIME, Dec. 25, 2006- Jan. 1, 2007, p. 73). Our students, faculty, and alumni continue to earn accolades and laurels aplenty for their research, their technologies, their solid success.

A whole new dynamic engine is revving up to support these exciting developments. We have launched our first electronic newsletter and a unique social networking platform, Always Illinois. We’ve held great face-to-face events with hundreds of you, and other COE alumni, in Chicago, Seattle, NY and Silicon Valley. Six of you – thank you Steve Lawrenz, Michael Reese, Lynn Reedy, Albert Chu, Max Levchin, and Jawed Karim – have generously returned to campus to share your real-world career insights with students as Engineers-in-Residence. And, you have given generously to support future programs, scholarships, fellowships, professorships and chairs, and opportunities for our students by contributing to our Annual Fund and endowment. Both have shown significant growth.

If we could get the *NY Times* or *TIME* to chronicle your generous donations of time and energy we would. Ross Erlebacher has spent many hours helping create an alumni mentoring program to help incoming freshman navigate the pathways to academic and career success. Ira Cohen, after selling his company, graciously volunteered to take on a “real job” to aid in our efforts to develop a partnership with the Chicago Public Schools. So many of you – busy with careers and family – take the time to share your suggestions and thoughts on how we can continue to improve.

All of this educational vitality deserves a professional staff committed to uphold and advance its excellence. We have hired two academic professionals who join with me to cultivate a whole new ethic of service, new strategies, and new standards of communication for our department. Jennifer LaMontagne has joined us as Associate Director for Communications, responsible for creating and driving our “brand” to the audiences who need to see it. Karen Hyman, my assistant in alumni relations and development, has been promoted to Associate Director for Public Engagement, responsible for our external and public relations and recruiting initiatives.

New Year’s begins across the globe with abundant resolutions. We’ll do our best to keep the ones we think are good for our alumni and good for the department. We’re resolved to focus on understanding “What can we do to serve you better? What can we all do together to help serve our development efforts?” With this fresh focus and resolve, I look forward to hearing from you in 2007.

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alumni news



Jeffrey Talbot, B.S. '00, married Meghann Mokros on June 25, 2005 in Galena, IL. Jeffrey is a computer software engineer at Business Logic, Inc. in Chicago.

Ryan Ott, B.S. '01, married Amy Dannenberg on October 8, 2005 in Seneca, IL. Ryan works as a programmer analyst at JM Lafferty Associates in Chicago.

Gary Sittler, M.S. '97, married Kirsten Bell in Oregon, IL. on October 8, 2005. Gary works as a project manager with Motorola at Arlington, Heights, IL.

Jason Zych, B.S. '95, M.C.S. '98 and Kathleen Marie Cupec, B.S. '98 were married on May 21, 2005 in Chicago. Jason Zych was a lecturer in the Department of Computer Science at the University and Kathleen is employed as a software developer at AgileTek, LLC.

Arun Bhalla, B.A. '00 in linguistics and a **B.S. '00 and M.S. '03** in Computer Science married Jane Andrew on March 18, 2006 in Urbana. Jane is also a 2003 graduate of the University with a degree in Marketing. Arun is currently employed as a software developer for Coverity, Inc.

OpenBI, LLC announced in DM Review Online, June 2006, that it is going to begin operations as a provider of business intelligence (BI) consulting and outsourcing services for the commercial market. Its unique focus will help enterprises attain affordable, high quality BI solutions through the use of open source business intelligence (OSBI) technology. Steve Miller and **Dave Reinke, M.S. '90** are co-founders of OpenBI, which is based in Chicago.

In the June 20, 2006 issue of the *News-Gazette*, **Eric Sink, B.S. '90**, discussed his recent Apress publication, entitled *Eric Sink on the Business of Software*. Sink, who founded the company SourceGear in 1997, has spiced up the normally dry genre of software by employing a Dave Barry-like style and personal epiphanies to help explain such business principles as Eric's Axiom of Software Management and Eric's Law of Company Funding. When well-known software entrepreneur and blogger Joel Spolsky posted a link to Sink's book, it shot up to #956 on the Amazon.com list of best-sellers.

Keith Tookey, M.S. '81, reports that "Since leaving the U of I . . ., I have taught at Morningside College in Sioux City, Iowa, completed my doctorate at the University of Wisconsin-Madison, taught at Columbia College in Columbia, Missouri, and I am currently teaching at Eureka College in Eureka, Illinois..."

SourceGear, based in Champaign, sports a roster full of talent from the Department of Computer Science and the University. **Jeff Clausius**, manager of a development team, holds an M.S. in Computer Science. **Shannon Melfi**, newly hired, earned her B.S. in Computer Science in May 2006. **Dan McCue**, another new hire, earned both his B.S. and M.S. in Computer Science. **John O'Neill**, one of SourceGear's executive team holds a Ph.D. in Chemical Engineering from UIUC and **Brody Finney**, QA, rounds out the team with another UIUC degree.

U of I Electrical and Engineering Professor **Constantine Polychronopoulos Ph.D. 1986** has opened a Champaign office of Bytemobile (www.bytemobile.com) in South Research Park. The company, founded with a faculty colleague and several graduate students, was formed as the result of a project they worked on in the late 1990s. Its primary product helps cellular networks operate more efficiently and today counts three of the biggest cellular operators – Vodafone, Sprint, and Nextel – as customers. In the March 29, 2006 *News-Gazette*, Professor Chronopoulos stated that he sees the UI Research Park office as “an ideal place to do great R&D” and an excellent place to try out risky problems and technologies.

Edmund Heller, B.S. '85, sends an aloha to say “Immediately after graduation I went to work for Compaq Computer Corp. in Houston, TX as a Systems Engineer. During my 15 year career there I did utility development, DOS development and ROM BIOS development. At the end I was responsible for the ROMs for all the Intel based consumer desktop computers. In 2001, at the ripe old age of 37, I retired and moved to Maui. I currently spend my days reading, swimming, snorkeling, hiking, biking and enjoying the tropical sunshine.”

Dr. John K. Estell, M.S. '87, Ph.D. '91, was announced as the winner of the 2005 Merl K. Miller Award by the Computers in Education Division of the American Society for Engineering Education (ASEE). This award is presented annually for the outstanding paper on teaching/instructional methods published in the Computers in Education Journal. John received the award for his paper entitled, “Teaching Graphical User Interfaces and Event Handling through Games,” which appeared in the July-September 2005 issue. Dr. Estell is currently Professor of Computer Engineering and Computer Science, and Chair of the Electrical & Computer Engineering and Computer Science Department, at Ohio Northern University in Ada, Ohio. He resides in Bluffton, Ohio, with his wife Melinda and son Patrick.

The National Science Foundation (NSF) has named distinguished computer scientist **Dr. Daniel E. Atkins (Ph.D. '70)** to head its newly created Office of Cyberinfrastructure. Dr. Atkins earned an M.S. in Electrical Engineering and a Ph.D. in Computer Science and from Illinois. Until assuming his new role, Dr. Atkins served as professor in the School of Information and in the Department of Electrical and Computer Engineering at the University of Michigan, Ann Arbor. He has made major contributions to high-performance computer architecture, and led or participated in the design and construction of seven experimental machines including some of the earliest parallel computers. He developed high-speed arithmetic algorithms now widely used in the computer industry, conducted pioneering work on special-purpose architecture including collaboration with the Mayo Clinic on development of computer-assisted tomography (CAT), and chaired the committee at Michigan that developed one of the earliest computer engineering undergraduate degree programs.

After a career spanning almost 23 years, **Channing Brown, B.S. '80**, has left Telcordia Technologies as a senior software engineer. He is currently running his own company (Greencourt Software) and has recently relocated from central New Jersey to Champaign, Illinois.

Mary Jane Irwin, who received her **M.S. '75** and **Ph.D. '77** degrees in Computer Science from the University has been named the 2005 recipient of the Association for Computing Machinery's (ACM) Distinguished Service Award. The Distinguished Service Award “honors an individual on the basis of value and degree of service to the computing community, including activities in other computing organizations.” Irwin, Evan Pugh Professor and the A. Robert Noll Chair in Engineering in Penn State's Department of Computer Science and Engineering, is co-founder of an annual workshop for women in design automation and a former vice president of ACM. Her research and teaching interests include computer architecture, embedded and mobile computing systems design, power and reliability aware design and emerging technologies in computing systems.

HPC Wire named CS alumnus **Henry Neeman Ph.D. '96**, in the 2006 edition of their list of People to Watch in High Performance Computing (HPC). Neeman was honored for his outstanding achievements teaching HPC concepts to intermediately experienced individuals. Neeman is currently the Director of the University of Oklahoma's Supercomputing Center for Education and Research (OSCER), as well as an adjunct assistant professor in the School of Computer Science and a research scientist at the Center for Analysis and Prediction of Storms. Most of his research deals with how to effectively teach HPC to people with modest programming skills. Typically, Neeman instructs individuals with roughly a year of programming experience. A four-pronged approach using “Supercomputing in Plain English” workshops, HPC question-and-answer sessions, tours and “rounds” allows inexperienced HPC students to compete with HPC experts.

IN MEMORIAM

Mary Lynn Meyer, of Mountain View, California, died April 20, 2006. She held two degrees from the University: B.S. '79, Math and Computer Science, and M.S. '81, Computer Science. She was 48 years old and had been employed in the computer industry as an engineer.

“AS WE STRIVE TO INCREASE THE QUALITY OF OUR TEACHING, IT IS GRATIFYING TO SEE THE EFFORTS OF OUR BEST TEACHERS RECOGNIZED,”

MARC SNIR // DEPARTMENT HEAD
MICHAEL FAIMAN AND SABURO MUROGA PROFESSOR.



faculty news

Teaching Excellence

Numerous professors in the Department of Computer Science have received various accolades for their work with students. Professor Lenny Pitt, University Distinguished Teacher/Scholar, received the Campus Award for Excellence in Undergraduate Teaching; Professor Dan Roth, Willett Scholar, received honorable mention for Excellence in Guiding Undergraduate Research; and Professor Jeff Erickson, Willett Scholar, received honorable mention for Excellence in Graduate and Professional Teaching. The College of Engineering chose Professor Stephen Bond as one of two recipients of the 2006 Rose Award for Teaching Excellence. The award is meant to recognize teachers who excel at motivating undergraduates to learn and appreciate engineering.

Marianne Winslett

Professor Marianne Winslett has been selected as a 2006 ACM Fellow “for her contributions to information management and security.” Professor Winslett has broad interests in the database area, with current focuses on data security and scientific databases. In the area of data security, she is participating in the TrustBuilder project to develop automated trust negotiation, a new approach to access control and authentication for use in open computing environments. In the area of scientific databases, Winslett’s Panda project is focused on providing high-performance, portable, modular, and self-tuning approaches to I/O for high-performance parallel codes.

Marc Snir

The Michael Faiman and Saburo Muroga Professor of Computer Science and head of the Department of Computer Science, has been awarded the distinction of AAAS Fellow by the American Association for the Advancement of Science. Snir was chosen for his outstanding technical leadership and contributions to the development of parallel computation and scalable parallel systems architectures, and for administration in industry and academia.



Lui Sha

Professor Lui Raymond Sha was invested with the Donald B. Gillies Chair in Computer Science on March 31, 2006. Professor Sha, a pioneer in the establishment of an engineering process for the practice of real-time computing based on analytic methods, is one of the nation's best and most respected researchers in Embedded Systems. In addition, Lui Sha was named as a new Fellow of the Association for Computing Machinery (ACM) for outstanding contributions to both the theory and practice of computing and information technology.

Eyal Amir

Assistant Professor Eyal Amir has been chosen as one of the ten top artificial intelligence researchers by IEEE Intelligent Systems, a prominent publication that focuses on this specific field. Eyal Amir has also been chosen by the National Science Foundation (NSF) as the recipient of a 2006 NSF Early Career Development award. Amir joins nearly 20 professors in the department to receive this award in the last 10 years, including nine since 2004.

Brian Bailey

Brian Bailey, Assistant Professor in Computer Science, and Sharon Tettagah, Assistant Professor in the Department of Curriculum and Instruction, have collaborated on building Clover, a computer-based tool which enables middle school students to author animated vignettes. This tool aims to help middle-school students transform their real-life experiences into short animated vignettes that they can share and discuss with their peers. Through this computer-based storytelling, they can wrestle with such issues as social justice, discrimination, and responsibilities towards peers. Clover is available for free download at <http://www.icctp.net>.

Tarek Abdelzaher

Associate Professor Tarek Abdelzaher has been chosen as editor-in-chief of Real-Time Systems, the primary journal of the real-time systems community. Because much of the work involved in building sophisticated, modern real-time systems is interdisciplinary, it is often found scattered throughout primary literature. Throughout nine issues per year, Real-Time Systems acts as a single-source coverage of this expanding field.



faculty news

YY Zhou

Department of Computer Science Professor Yuanyuan Zhou has been recognized with a Sloan Fellowship for her work in the field of software bug detection, diagnosis, and correction. The highly competitive Sloan Fellowship awards enhance the careers of outstanding young faculty members in specified fields of science. A total of 116 fellowships are awarded annually in seven fields: chemistry, computational and evolutionary molecular biology, computer science, economics, mathematics, neuroscience, and physics. Fourteen awards are made in the Computer Science field. The 2-year grant will enable her to continue her groundbreaking research in these areas and help Zhou lead the industry in reducing the overall costs associated with computer failures. Assistant Professor YY Zhou was also the recipient of the C.W. Gear Faculty Award for 2005.

Klara Nahrstedt

Professor Klara Nahrstedt, the Ralph M. and Catherine V. Fisher Professor in the Department of Computer Science, is collaborating with a team of researchers from UC Berkeley on an experiment that allows individuals from both locations to see one another and interact in cyberspace in a 3-D format. TEEVE (Tele-immersive Environments for EVERYbody) is unique amongst tele-immersive video-conferencing systems for its great potential to deliver high-quality images and communications using relatively inexpensive technology and COTS – or commercial off-the-shelf products and equipment. Nahrstedt envisions many potential applications for TEEVE, such as helping physiotherapists work with patients in cyberspace; allowing adult children to better assess the medical condition of elderly parents; and teaching sports activities for students residing in remote locations.

Sarita Adve

Professor Sarita Adve is the lead researcher on a project known as the GRACE project, for Global Resource Adaptation through CoopEration. The GRACE project aims to better coordinate interactions between hardware, network, and software of computer systems to optimize resource usage. The project, underway since 2002, involves an interdisciplinary team of UIUC scientists from ECE and the Computer Science department, including Professor Klara Nahrstedt and Associate Professor Robin Kravets.

Steve LaValle

Associate Professor Steve LaValle, a motion planning expert and robotics researcher, has published *Planning Algorithms* under the Cambridge University Press imprint. Its publication marks the first time that planning algorithms from robotics, AI, and control theory have been unified comprehensively and cohesively under one umbrella. LaValle hopes his book will play a role in uniting the efforts of these three disparate research communities and will stimulate international interest in planning. *Planning Algorithms* was unveiled in May 2006 at the IEEE International Conference on Robotics and Automation.



David Forsyth

Professor David Forsyth has been awarded the IEEE Computer Society 2005 Technical Achievement Award. The Institute for Electrical and Electronics Engineers (IEEE) presents the award annually to people in the field who have made outstanding contributions to theory or practice in technical areas, as demonstrated through publications, patents, or recognized impact. The IEEE Computer Society chose Forsyth as a recipient of the award for his “contributions to object recognition, tracking and image-language analysis yielding deeper understanding of computer vision and its relationship to other disciplines.”



ChengXiang Zhai

Assistant Professor ChengXiang Zhai, along with Vijay Singh and Gerard Wong, faculty members in our College of Engineering, were among 81 of the nation’s brightest young engineers selected to take part in the National Academy of Engineering’s (NAE) 12th annual Frontiers of Engineering symposium. The two-and-a-half-day event brought together engineers ages 30 to 45 who are performing cutting-edge engineering research and technical work in a variety of disciplines.



Haiyun Luo

Assistant Professor Haiyun Luo and graduate student Nathanael Thompson have developed software that enables the sharing of high-speed Internet connections without compromising security or privacy. This framework, called PERM (Practical End-host collaborative Residential Multihoming) allows neighbors to pool their Internet access and thereby improve both performance and resilience. Nathanael Thompson presented the peer-to-peer Internet sharing concept and flow-scheduling algorithms at the IEEE INFOCOM 2006 meeting in Barcelona in April.



Ralph Johnson

Ralph Johnson, Research Associate Professor in Computer Science, was honored as one of four recipients of the Dahl-Nygaard prize for 2006. The award, presented by Association Internationale pour les Technologies Objets (AITO), was presented in early July 2006 at the European Conference for Object-Oriented Programming in Nantes, France. AITO presents this award annually to individuals who have made significant contributions to the field of computer science and whose work reflects the spirit of Ole-Johan Dahl and Kristen Nygaard. Dahl and Nygaard shaped AITO’s current view of programming and modeling, known as “Object-Orientation,” in the 1960s.



Parisa Tabriz

Collegiate Cyber Defense Competition

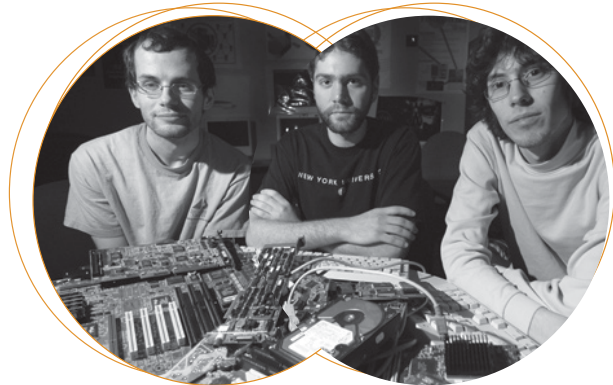
Computer Science students Paul Dabrowski, Chris Grier, Steve Hanna, William Kormos, Christy Sauper and Frank Stratton earned a third-place finish March 24-26, 2006 in the first ever Midwest Regional Collegiate Cyber Defense Competition (CCDC). CCDC, held at the Siebel Center, involved eight teams of students from universities and community colleges fending off attempts by a “Red Team” of professional penetration testers to break into servers throughout the building. Susan Hinrichs, a visiting lecturer in CS and co-organizer of this regional competition, summarized the great practical experience this contest provides our students: “The competition provides the fun, as well as an educational venue in which students are able to apply the theory and skills they have learned in their course work.”

ICDE Best Student Paper

Department of Computer Science Professor Jiawei Han, Civil and Environmental Engineering Professor Diego Klabjan and CS graduate students Hector Gonzalez and Xiaolei Li received the Best Student Paper award at the 2006 Conference on Data Engineering (ICDE), held in April 2006 in Atlanta, GA. Their prized paper, entitled “Warehousing and Analysis of Massive RFID Data Sets,” explores Radio Frequency Identification’s (RFID) burgeoning role in object tracking and supply chain management and its use as an alternative to bar code identification systems. The conference, the 22nd of its kind, aims to help participants share research solutions to problems confronted in our information society and to identify new directions in data engineering research.



Marc Snir and Dave Mussulman



Jonathan Ray, Jacob Lee, and Jesse Beder

Google Anita Borg Memorial Scholarship

Computer Science students Parisa Tabriz and Soumi Sinha are winners of the 2006 Google Anita Borg Memorial Scholarship. The \$10,000 scholarship was awarded to 19 women undergraduate and graduate students around the country who are completing degrees in computer science and related fields. In addition, CS student Tanya Crenshaw was awarded \$1000 as one of 28 finalists. Google, Inc. awards the scholarship with The Anita Borg Institute for Women and Technology to further the vision of Anita Borg, who worked for positive change in technology and better opportunities for women in the field throughout her life. The scholarship was first awarded in 2004, after Ms. Borg lost her battle with cancer in 2003 at the age of 54.

Computing Habitat Programming Competition

The Second Annual Computing Habitat Programming Competition has yielded three prize-winning projects that leverage Siebel Center's many unique technologies, such as cameras and public displays, to provide a useful service to both inhabitants and visitors. As the first place winner of the competition, Dave Mussulman set out to make it easier to keep track of events with his project "Announcr." "Announcr" takes news and event formation, channels and filters it based on individual preferences and delivers the information in a desired format. Onur Pekcan won the second place prize with Biometric Authentication System Software (BASS). BASS uses speaker recognition to verify the voice of a person standing in front of a door speaking a password, such as a specific name. CTE (Collaborative Text Editor) took third place. The project, created by Kevin Barnes, Brett Clouser, Alex Disney, Matt Geske, and Andres Tack, is an instructional tool for code-intensive classes.

International Student Research Competition

Danny Dig and Yaling Yang, Ph.D. students in Computer Science, earned top prizes in the ACM International Student Research Competition. Sharing the spotlight with 2005 Turing Award Peter Naur, Dig and Yang were honored at the May 2006 ACM Awards Banquet, where they received first and second place awards in the Student Research Competition (SRC). The SRC is an international competition for undergraduate and graduate researchers, sponsored by Microsoft Research. Dig, a PhD candidate, received first prize in the ACM Student Research Competition as well as the first prize in the SIGPLAN Conference, the Special Interest Group for Programming Languages, for his work using refactoring technologies to upgrade component-based applications. Yaling Yang was honored for placing second in the ACM Student Research Competition with her research into Load-balanced Routing for Mesh Networks.

International Collegiate Programming Contest

Our UIUC Team, composed of Jonathan Ray, senior in CS' Jacob Lee, junior in CS, and Jesse Beder, a first-year graduate student in Mathematics, qualified for the 31st Annual ACM International Collegiate Programming Contest (ICPC) World Finals in Japan. To earn the spot in this prestigious programming contest, they placed 2nd in the Midwest Regional Contest of the 31st Annual ACM-ICPC, sponsored by IBM. From a field of 6000 teams competing at over 200 sites worldwide and representing over 1700 universities, our team's impressive finish places them in a select group of 85 teams advancing to the finals. UIUC has made the World Finals in three of the last four years. Hosted by ACM Japan Chapter and the IBM Tokyo Research Lab, the competition was held March 12-16, 2007 at the Hilton Tokyo Bay in Japan.

March 9-10, 2007

Engineering Open House

March 29, 2007

Chicago Area Alumni Reception (Oak Brook, IL)

March 29, 2007

Distinguished Lecturer: Dan Atkins, Director NSF Office of Cyberinfrastructure

April 11, 2007

Mueller-Thuns Lecturer: Vinton Cerf of Google

April 16, 2007

Gillies Lecture: David Salesin, University of Washington

April 26, 2007

Women in Computer Science Annual Awards Banquet

April 28, 2007

Department of Computer Science Awards Ceremony

PH.D.'s awarded

Student	PhD Advisor	Title
DECEMBER 2005		
Zheng, Gengbin	L. V. Kale	Achieving High Performance on Extremely Large Parallel Machines: Performance Prediction and Load Balancing
Chen, Shou	Ravi Iyer	Design for Security: Measurement, Analysis and Mitigation
Punyakankok, Vasin	Dan Roth	Inference with Classifiers: A Study of Structured Output Problems in Natural Language Processing
Sun, Qiang	Gerald DeJong	Explanation-Based Approach to Incorporating Domain Knowledge into Support Vector Machine: Theory and Applications
Lim, Jongwoo	David Kriegman	On Clustering Images of Objects
MAY 2006		
Chen, Terrence	Thomas Huang	Scale-Driven Image Decomposition with Applications to Recognition, Registration and Segmentation
Cong, Shengnan	David Padua	A Sampling-Based Framework for Parallel Mining Frequent
Fang, Hui	John Hart	Vector Field Manipulations in 3-D Time-Varying Flow Data Compressions and Image/Video Editing
Gopalakrishnan, Sathish	Lui Sha	Resource Management for Real-Time Environments
Hardy, David	Robert Skeel	Multilevel Summation for the Fast Evaluation of Forces for the Simulation of Biomolecules
Harris, Albert	Robin Kravets	Cross-Layer Energy-Efficient Mobile System Design
Jang, Myeong-Wuk	Gul Agha	Efficient Communication and Coordination for Large-Scale Multi-Agent Systems
Jin, Jingwen	Klara Nahrstedt	QOS-Aware Service Management for Internet-Scale Distributed Applications
Kosorukoff, Alexander	Sylvian Ray	Methods for Cluster Analysis and Validation in Microarray Gene Expression Data
Kowshik, Sumant	Lui Sha	Static Analysis for Architecture-Implementation Conformance in Robust Embedded Systems
Kwon, Young Min	Gul Agha	Probabilistic Modeling and Verification of Large Scale Systems
Lazebnik, Svetlana	Jean Ponce	Local, Semi-Local and Global Models for Texture, Object and Scene Recognition
Lee, Sang-Chul	Narendra Ahuja	Three-Dimensional Volume Reconstruction From Fluorescent Confocal Laser Scanning Microscopy Imagery
Li, Chein-Wei	Wen-Mei Hwu	On Extracting Coarse-Grained Function Parallelism from C Programs
Lin, Ruei-Sung	Stephen Levinson	Manifold Learning from Time Series
Liu, Che-Bn	Narendra Ahuja	Globally-Coordinated Locally-Linear Modeling of Multi-Dimensional Data
Nakano, Jun	Josep Torrellas	Techniques to Address Unreliability and Variability of Computing Systems
Ramasamy, Harigovind	William Sanders	Parsimonious Service Replication for Tolerating Malicious Attacks in Asynchronous Environments
Siefert, Christopher	Eric deSturler	Preconditioners for Generalized Saddle-Point Problems
Srinivasan, Jayanth	Sarita Adve	Lifetime Reliability Aware Microprocessors

gifts

“WE MAKE A LIVING BY WHAT WE GET, BUT WE MAKE A LIFE BY WHAT WE GIVE.” WINSTON CHURCHILL

The Chirag Foundation Fellowship has been donated by Abha and Anil Singhal, trustees of the Chirag Foundation. Inspired by their joint esteem of public higher education, their fellowship aims to alleviate the financial burden of deserving graduate students in our department. Anil earned his master's degree in 1979 from the Department of Computer Science and is founder of Netscout, which provides application and network performance evaluation software and hardware probes.

LIFE LESSONS FROM UIUC INSPIRE SUSAN SILVER AND ROSS ERLEBACHER SCHOLARSHIP

Susan Silver and Ross Erlebacher have a special relationship with the University of Illinois and with each other. They met on a blind date and married a few years after their respective graduations from the University of Illinois. Although they earned degrees in different disciplines from the university, they speak with one voice, united in affection for the unparalleled education and life lessons they received here.

“The institution itself has cultural values that make the university experience so strong. In a place so large, students learn to support one another and work together effectively. If you bring the right disposition to the place – a willingness to work hard, to respect other students, to be helpful – there is no limit to what can be achieved here,” they said.

Susie, as she likes to be called, and Ross believe that when you learn to succeed at a large institution, like the UIUC – “a place that doesn’t coddle its students” – you learn enduring lessons that enhance both life and work. Their gratitude has inspired them to fund the Susan Silver and Ross Erlebacher Scholarship. This four-year scholarship, designed to rotate between the Department of Computer Science and the Department of Economics, will provide educational funding to a female or underrepresented minority student without the means to attend the University.

Susie and Ross enjoyed a lively and exciting life outside the classroom, with Susie’s involvement in student government and Greek life, and Ross’s devotion to intramural sports and campus jobs tutoring students and grading math exams. Their paths did not cross, however, until a blind date brought them together after their student days were over. Married since 1992, they enjoy a rich stock of memories of their respective in-class experiences as well.

Ross was the beneficiary, he says, of the “founding fathers and mothers of the Computer Science department” and enjoyed solidifying his relations with key faculty members who taught him repeatedly as an undergrad and grad student. Susie and Ross sounded a common theme that hard work yields rewards, here, as everywhere: “If a student shows initiative, faculty members really go out of their way to help.”

Ross is currently Marketing Director at HSBC. He is a valuable member of the Department of Computer Science’s Executive Advisory Council. Susie is an executive vice-president of Chicago-based Millennium Properties, Inc. and has been recognized as one of Chicago’s outstanding real estate brokers. Susie earned her B.A. in Economics in 1988. Ross earned a B.S. in Computer Science in 1988 and a master’s degree in Computer Science in 1989. { KAREN HYMAN }



Ross Erlebacher & Susan Silver

OUTREACH STRIVING FOR DIVERSITY

A large and diverse IT work force is necessary to sustain our highly technological society. The Department of Computer Science has seeded a number of programs designed to help develop a more diverse IT labor pool. We encourage you to become involved with the distinctive programs and supportive services we provide to the highly-motivated and bright women and minority students interested in careers in computer science and in our department.

The Women in Computer Science (WCS) student organization is key to the department's outreach initiatives. WCS sponsors the ChicTech program, which brings our female students to high schools to spark the interest of high school women in computer science. They inform their younger peers about the many benefits of technical careers and invite them to join the Technical Ambassadors Competition (TAC) – a competition in which students do computer work (e.g. creating web pages) for non-profit organizations.

Alumni can also participate in ChicTech. This past year, Carol Cruchala, Jill Magsam, Carole Long, David Burns, and Pam Marino visited high schools addressing a total of 108 girls. In the 2005-2006 school year, 11 schools (232 female students) were visited, which inspired 49 students to participate in the TAC and 30 in the weekend retreat which culminates the competition. The ChicTech Committee is currently scheduling appointments for upcoming high school visits and would love to have your help.

WCS aims to promote and retain women in CS and has developed many ways to create a supportive environment. In addition to holding various workshops on technical subjects such as artificial intelligence, graphics and computer languages, WCS organizes a Welcome Picnic for new first-year students,



2006 Technical Ambassadors Competition

movie nights, coffee hours (including professors), Corn Maze field trip, and workshops on business topics, and library study nights.

The WCS Awards Banquet was held in April in conjunction with the Affiliates Conference. Two students, Pooja Mathur and Daphne Chen, receive scholarship awards from Lockheed Martin. Ms. Mathur also received an award from Cisco. During that time, a new officers' board was elected for this 50-plus member (and growing!) organization.

The Computer Science Camp, organized under the auspices of the College of Engineering GAMES camp (Girls' Adventures in Math, Engineering, and Science), with a curriculum designed by Professor Lenny Pitt, attracted 45 middle school girls. They had the opportunity to fully experience the world of computer science through computer labs, hands-on activities, and field trips.

Additional outreach initiatives include high school tours with the assistance of Eve Earles (Mc4West Project), IMPRINT, Upward Bound, as well as other projects to attract more minority students to the department. We also work closely with the College of Engineering to develop ways to be more supportive of our minority students and bring more diversity to the University.

{ SONYA HARRIS }

For more information about ChicTech and other outreach activities, contact Sonya Harris at 217.244.4493 or lharris2@uiuc.edu.



Steve Kostell, Rose Marshack, and Rick Valentin

In early 2006, the Illinois Department of Transportation (IDOT) sponsored a design competition at the University of Illinois as part of a statewide effort to recognize and celebrate the 50th Anniversary of the Eisenhower Interstate Highway System. The competition, for a mobile installation to be housed in an Airstream 28' Travel Trailer, was organized and judged by faculty of the Department of Civil and Environmental Engineering, the School of Art and Design, and the Krannert Art Museum. The winning design concept, called "Roadside Conversations: Ordinary People, Extraordinary Stories" was designed by a team from the College of Fine and Applied Arts that includes two alumni of the Department of Computer Science at UIUC, Rose Marshack (B.S. 1988, Math and Computer Science) and her husband Rick Valentin (B.S. 2003, Computer Science), as well as Steve Kostell (Instructor, School of Art and Design).

The "Roadside Conversations" Airstream exhibit traveled in June 2006 from Omaha to Washington DC as part of a national convoy of vehicles celebrating the 50th Anniversary of a highway system called "one of the Seven Wonders of the United States." This national convoy, with the clean silver-sleek trailer and its high-tech interactive computer kiosks, actually commemorates a muddy mess of a journey taken by then Lieutenant Colonel Dwight D. Eisenhower in 1919. In order to test our country's capacity to handle military transportation, Eisenhower helped staff a coast-to-coast convoy of 81 military vehicles. The 1919 convoy required 62 days to cover what now takes us--thank you Ike-- less than a week to traverse. The journey, marked by "heat, breakdowns, mud, bridgeless river-crossings, and rough roads" (www.interstate50th.org), convinced Eisenhower that we desperately needed a better highway system. Eisenhower's World War II experiences strongly reinforced

this conviction. During the war, Eisenhower exploited the autobahn system to move U.S. troops quickly into Germany, which helped accelerate the defeat of the Germans. It was the Federal-Aid Highway Act of 1956, which he signed, that helped fund the now 46,000 miles of highway that bears his name.

Rose and Rick have seen their fair portion of those 46,000 miles of highway. As founding members of their own rock band – Poster Children – in 1987, she and Rick have traveled these roads for nearly two decades of cross-country tours. Rose said that she knows the roads and the skies surrounding them so thoroughly that "if someone shows me a picture of the highway, I can tell you in what state it is located." When she heard about the competition, she thought "This contest is made for us."

But, the winning team members understood that you don't have to be a rock star to have an extraordinary tale to tell of a road trip taken along the interstate. Their interactive exhibits were meant to act as a repository for the memories of ordinary people. Visitors to the Airstream Travel Trailer were encouraged to record their own memories of the Interstate System – the cramped glories of journeys with siblings; the thrill of the open road before car DVD systems altered those thrills forever; the warm memories of car trips that spanned days.

A second component of the exhibit consists of a pair of stereoscopic monitors, displaying a map of the Eisenhower Interstate Highway System (EIHS). Visitors can put on a pair of glasses and experience a 3-D visual of the EIHS, navigable on three axes via a controller. The simulation distributes the collected audio narratives and when a viewer passes by a certain location – let's say I-74 near I-57 – he or she hears the audio recording of someone's memories of, well, returning to UIUC in August to start classes. Further details of Rose Marshack's, Rick Valentin's, and Steve Kostell's designs can be seen at www.roadsideconversations.org

Rose currently works as an Art and Technology Integration Specialist at Krannert Art Museum and serves there as CANVAS (a Virtual Reality CAVE) curator and Rick recently joined the Beckman Institute at the UIUC as a web specialist. { KAREN HYMAN }

LUI SHA HONORED WITH DONALD B. GILLIES CHAIR IN COMPUTER SCIENCE

On March 31, 2006, at the Thomas M. Siebel Center for Computer Science, Professor Lui R. Sha was invested as the first Donald B. Gillies Chair in Computer Science. Lawrence (Larry) White, who earned his bachelor's degree from the University in math and computer science in 1975 and a master's degree from UIUC in computer science the following year, established the Donald B. Gillies Chair in Computer Science with a gift of \$2 million to honor one of his beloved teachers.

Professor Gillies (1928 – 1975) was a faculty member in the Department of Computer Science at the University of Illinois at Urbana-Champaign from 1956 to 1975. He earned his undergraduate degree from the University of Toronto in 1949 and his Ph.D. from Princeton in 1953. At Princeton, Donald Gillies worked as a research assistant to John Van Neumann, a pioneer of the modern digital computer, in the fields of game theory and computer science. An inspiring teacher, he was devoted to helping his students acquire “hands-on” computer experience long before personal computers made such experience commonplace. His work and his teaching also emphasized the ethical use of computing machines in society.

With this gift, Larry perpetuates the high ethical standards of his own upbringing, as well as those of the late Professor Gillies. Larry's parents exemplified the ideal of service, as missionaries to Liberia and Larry himself spent years in the Boy Scouts, ascending to the rank of Eagle Scout. He notes that “Professor Gillies demonstrated tremendous enthusiasm for everything related to computers and a willingness to lead us, his students, into his world. He acted like sharing his breadth of knowledge was a delight. Even though I've forgotten everything that was on the tests, I've never forgotten what it means to be a good teacher.”

To celebrate Professor Sha's own breadth of knowledge and devotion to students, attendees came from near and far. Speakers included Marc Snir, Michael Faiman and Saburo Mu-



Lui Sha

roga Professor and head of the department; Richard Herman, Chancellor of the UIUC; Ilesanmi Adesida, Dean of the College of Engineering and Dean John Lehoczky, the former graduate advisor for Lui R. Sha and now Dean of the College of Humanities and Social Sciences at Carnegie Mellon University. Their remarks all sounded a common theme, in harmony with the donor's comments about Professor Gillies – that Professor Lui Sha has distinguished himself as one of the University's most outstanding educators and researchers. He has served on the Doctoral Dissertation committee of some 20 computer science Ph.D. candidates in the last five years. Beyond this service, Professor Sha is widely regarded as one of the most outstanding researchers in Embedded Systems. Sha's research concerns the design and integration of robust real-time embedded systems using a mixture of new and extant components. With more than 100 articles in the area, the significance of his work has been recognized by such institutions as the National Academy of Science, the National Research Council, and the US Department of Defense.

The celebration was enhanced by the presence of several members of the Gillies family including Donald Gillies Jr., Professor Gillies' son and Betsey Gillies, wife of Professor Gillies.

Lui Sha stated that “To be a Gillies Professor is a great honor and a great challenge to me.” The department is most grateful for this gift, supporting Professor Sha as he rises to this challenge. { KAREN HYMAN }

To discuss endowing a chair in the department, please contact Tammy Nicastro, Director of Development and Alumni Relations at 217-265-6823 or nicastro@uiuc.edu



ACM Conference Staff

**SCHEMING FOR FREE PIZZA:
ACM STUDENT CHAPTER LABORS ON**

ACM is of course a long standing institution amongst computer science students at the University of Illinois, and alumni should be pleased to learn that the student chapter is still going strong. Ever since the move into our spacious new offices in the Siebel Center in January 2004, ACM has enjoyed many successes. Membership is strong, with 19 SIGs, ranging from consistent favorites like SIGSoft and SIGArt to newly revived groups like SIGMusic and SIGBio to entirely new organizations such as SIGSAC and SIGPLAN. Overall, the largest group is ACM's GameBuilders, with over 30 members engaged in all aspects of video game development.

At the 2006 Engineering Open House (EOH), SIGSoft garnered third place in the theme exhibit, "Beyond Imagination" for their *Collaborative Text Editor*, while ACM swept the Original Undergraduate Research category, with SIGMusic's *Turing and the Wolf* (1st), David Kaplan and John Loucaides' *RingCycle* (2nd), and SIGMil's *Footsteps* (3rd). Recent alumni Chris Mullen and Philip Lowman visited to perform judging for ACM internal awards, which additionally recognized GameBuilders' *Phantom Breach* and *Red Girder* for best teamwork, SIGSoft's *Schedule* for best technical, and SIGEmbedded/SIGPLAN/SIGArch's *A Night at the Roxbury* for most wacky.

Our UIUC team of Jesse Beder, Jonathan Ray, and Jacob Lee traveled to Tokyo in March to compete in the 31st Annual International

Collegiate Programming Contest World Finals. Their journey was supported by generous donations from Intel, alumnus Chris Mullen, and a matching gift from Chris's employer Deloitte Touche Tohmatsu. In addition to periodic advertised tech talks, we focus on showcasing ACM at quad day (before school in August), EOH, the annual Reflections Projections conference, and ACM open house sessions at the beginning of each semester. We'd certainly appreciate alumni advice on recruitment strategies and additional interesting events to hold—e-mail top4@acm.uiuc.edu.

ACM's annual Reflections Projections student computing conference, now in its 12th iteration, has hosted 15-20 invited speakers in recent years. This year's conference, held October 20-22, featured many speakers including CS alumni Chip Mayse of SAIC satellite systems, Max Levchin, co-founder of PayPal and founder of Slide.com, Jawed Karim, co-founder of YouTube, and Eric Johnson of FactSet.

The conference was funded by a computer science job fair along with additional sponsorships for the MechMania agent programming contest and a week-long PuzzleCrack contest.

SIGs are active, corporate relations are strong, and recruitment is an ongoing process; now ACM needs to focus on reconnecting with our alumni. Students are always interested in alumni visits, to learn about how things used to be and catch up with what you're up to now—one of the best times to visit would be during the Reflections Projections conference on October 12-14, 2007. To receive occasional updates on key ACM events, please subscribe to our alumni-l list, available at <https://www-s.acm.uiuc.edu/cgi-bin/mailman/list-info/alumni>. { SAMEER SUNDRESH }

Also feel free to contact the elected officers at top4@acm.uiuc.edu or the corporate relations committee at corporate@acm.uiuc.edu.



DEPARTMENT OF HOMELAND SECURITY ESTABLISHES CENTER AT ILLINOIS

Thanks to a three-year, \$2.4 million grant from the U.S. Department of Homeland Security's (DHS) Institute for Discrete Sciences, the Department of Computer Science at the University of Illinois at Urbana-Champaign will develop the technology for processing of vast amounts of data in multiple formats. Illinois is one of four universities who will share a \$10.2 million appropriation.

"Illinois is a national leader in using technology to make information accessible and understandable," said U of I Chancellor Richard Herman. "This grant will allow us to develop the fundamental theories, computational models and tools to help interpret data."

"The Multimodal Information Access and Synthesis (MIAS) Center is a DHS University Affiliate Center to be established at the University of Illinois," explained Dan Roth, a Willett Scholar and Professor of Computer Science who is the principal investigator and director of the new center. "Altogether, the overarching goal is to use science and technology to reduce threats to our nation's security by providing new knowledge and cutting edge technology and by helping produce a growing number of professionals through our educational programs," Roth said. "It will also have significant impact on the growing industry of information access, search engines and mining knowledge from data."

"The MIAS will advance the understanding and technologies required to deal with large amounts of information available today in multiple textual forms," said Roth, an expert in machine learning and natural language processing. "The center builds on Department of Computer Science strengths in such areas as machine learning, natural language processing, information retrieval, image processing, databases, and data mining." Co-principal investigators involved with the project from the Illinois computer science department include Jiawei Han, David Forsyth, Kevin Chang, ChengXiang Zhai, and AnHai Doan.

Working with the Illinois MIAS researchers will be researchers from the University of Texas at San Antonio, University of Washington, University of Wisconsin at Madison, and Kansas State University, as well from national labs such as Lawrence Livermore National Laboratories.

“In addition to improving homeland security, the center will further contribute to the strength of our campus in the technologies that extract knowledge from large amounts of unstructured data - technologies that are already key to several startups in the South Campus, and are fast becoming essential to many businesses,” stated Marc Snir.

The University of Illinois at Urbana-Champaign has a significant history of activity in state and national homeland security programs. These programs have focused on training, outreach, and research. University staff members have been instrumental in the development of the Illinois Terrorism Task Force, in particular the Training Committee, which funds First Responder training programs at the Illinois Fire Service Institute and Police Training Institute. Outreach components have helped educate citizens of the state on pressing issues, but also include developing a team of multidisciplinary experts to assist in the World Trade Center 7 project. In January 2004, the University of Illinois established the Illinois Homeland Security Research Center (IHSRC) as a clearinghouse for Homeland Security research on campus. The Center is creating a usability test bed for concepts and products, providing seed funding for focused research, developing outreach and educational programs, building government and private sector partnerships, and providing a conduit for timely interactions on critical issues.

{ RICK KUBETZ }



Dan Roth

WE KNEW THEM WHEN YOUTUBE & PAYPAL FOUNDERS

“INVENTION OF THE YEAR.” *Time*

“THE NEW MUST-SEE ON YOUR PC: YOUTUBE”

Mercury News

“YOUTUBE’S INTERFACE: IF YOU BUILD IT, THEY WILL COME” *Media Post Publications*

“EVOLUTION OF YOUTUBE COULD MARK BEGINNING OF AGE OF PERSONAL MEDIA” *USA Today*

“IT PAYS TO HAVE PALS IN SILICON VALLEY.”

New York Times

The Google announcement of its \$1.65 billion purchase of popular video-sharing site YouTube is front-page news - everyone’s talking about the profit being made by a handful of guys living over a pizza place. But the background story, of YouTube’s deep connection to CS, is now beginning to emerge. This cluster of Internet superstars - YouTube co-founders Jawed Karim (B.S. ‘04) and Steve Chen, another departmental alum, and the man who first brought them together at PayPal, Max Levchin (B.S. ‘97) - all come from the same constellation: they were all students in the Department of Computer Science at Illinois.

Karim and Levchin returned to their Alma Mater as part of the October 20-22, 2006 ACM Reflections Projections Conference and Engineer in Residence program.

The development of YouTube is a direct outgrowth of the connections that Max Levchin established in the Department. Max Levchin, aware of his peers’ raw intelligence, sound work ethics, and excellent practical experiences in the Association for Computing Machinery (ACM), hired Steve Chen, and Jawed Karim, both alumni of CS to work at PayPal. Those PayPal colleagues became friends, whose frustrations over trying to share casual videos of a dinner party one evening blossomed into the business concept of a viral video site



Jawed Karim Speaks to students at ACM conference

called YouTube. The third YouTube founder, Chad Hurley, although not a UIUC alumnus, also was hired by Levchin to work at PayPal and in turn met Chen and Karim.

As a sign of the link between these extraordinary individuals, the phenomenal businesses they have founded, and their deep connection to our department and the University of Illinois, the co-founders of these extraordinary businesses spent hours engaging with our students during the Association for Computing Machinery (ACM) at the University of Illinois' 12th annual Reflections Projections conference. As the *News-Gazette's* Greg Kline noted, the students welcomed them back "like rock stars."

While on campus, Levchin and Karim presented lectures-open to the public, office hours for individual discussions with students, and media interviews. On October 21, Levchin, now chairman and CEO of Slide.com spoke about the brightening picture for start-up economics. His talk, "Millionaire Before Graduation: Entrepreneurship in the Post-Post-Bubble Internet," was enthusiastically received by a standing room only crowd.

Later that day, Jawed, an advisor to YouTube and current graduate student in computer science at Stanford University, spoke on

"YouTube: From Concept to Hypergrowth," explaining the thought processes and events that led to the development of YouTube.

Both Levchin and Karim also offered extensive office hours for individual student consultations.

In an article entitled, "Google, YouTube deal is a wrap", the Chicago Tribune (October 10, 2006) touted the purchase and noted the Department of Computer Science and University of Illinois' connection in YouTube's parentage. By integrating its search technology and search-based advertising program with YouTube, Google can now tap into the huge market of users that have vaulted YouTube into Internet history as one of the Web's most popular websites. With 100 million videos served daily, the site has drawn massive attention in the media for its potential to revolutionize the entertainment, political, and cultural zeitgeist.

As Department Head Marc Snir has noted, "The computer science department here has been a melting pot for great ideas and entrepreneurial successes for many years. Seeing our alumni on the front pages of the world's press reminds us of the talent that has passed through our doors." { KAREN HYMAN }

**DEPARTMENT OF COMPUTER SCIENCE ALUMNUS
NAMED MICROSOFT'S CHIEF SOFTWARE ARCHITECT**



Ray Ozzie

With the news of Bill Gates' retirement from the day-to-day management of Microsoft Corp., the company announced that Department of Computer Science alumnus Ray Ozzie (B.S. '79), a Chief Technical Officer at Microsoft, will immediately assume the title of Chief Software Architect and begin working side by side with Gates on all technical architecture and product oversight responsibilities. Gates will transition by July 2008 to full-time work at his nonprofit foundation, which contributes money to healthcare programs in developing countries and education in the United States.

"Our business and technical leadership has never been stronger, and Microsoft is well-positioned for success in the years ahead. I feel very fortunate to have such great technical leaders like Ray ... at the company," Gates said.

After the announcement, industry leaders were fulsome in their praise of Ray Ozzie, calling him a "visionary" and "the best person in the universe" with the unique skills to address Microsoft's business challenges. As the *Wall Street Journal* noted in its article on Ozzie, "Microsoft has ruled in the era in which software has been sold in a one-time transaction--software that comes with a PC or in a box to be installed in a PC--and has moved many of its business customers to a subscription service. Mr. Ozzie has spent the past year working on a key piece of that, a set of services under the brand "Live" that delivers software to businesses and Internet searches to consumers. He and other Microsoft leaders say those are just the start of Internet-based services that move much of the software and storage on PCs onto the Internet." (*Wall Street Journal*, June 17, 2006)

Ray Ozzie earned his bachelor's degree in our department in 1979 and in 1996 established the Ray Ozzie Fellowship in the Department of Computer Science. The College of Engineering has honored him with its Alumni Award for Distinguished Service in Engineering.

It was his work on the University's seminal PLATO (Programmed Logic for Automated Teaching Operations) project

that first exposed him to the nature and significance of collaborative systems and computer-supported cooperative work.

Ozzie wandered into the campus building that housed the computer system with terminals linked to a mainframe in a network that, remarkably for its time, had instant messaging, email and online discussions. Ozzie became a senior programmer on the PLATO system, and recalled that he was “forever changed” by this University experience. It gave him, he said, “a peek at what the Internet would ultimately become. It was a microcosm, an online community in an era when there weren’t online communities,” Ozzie said. This work significantly influenced his perspective on collaborative systems and the projects he has undertaken throughout his career.

“My passion for using technology to augment relationships began in the mid-1970s when I worked on PLATO as an undergraduate,” Ozzie noted. “At the time, PLATO consisted of about 1,000 terminals connected to a central mainframe. Programmers started to use the system not only to build courseware, but also to create a variety of tools for human interaction, such as those we now think of as email, instant messaging and chat rooms, online discussions and interactive gaming. In the course of my projects, I established relationships with people I never actually met face-to-face. Since then, in many ways, I’ve spent most of my life trying to build on those first experiences I had with PLATO.”

Ozzie, 50, worked on the first electronic spreadsheet, VisiCalc, in the early 1980s, then joined Lotus Development Corp. in 1983 to develop Lotus Symphony, an MS-DOS®-based integrated software management product that combined word processing, spreadsheet, business graphics, data management and communications capabilities. In 1984, Ozzie formed Iris Associates Inc. to develop Lotus Notes. In 1997, Ozzie founded Groove Networks, where he developed Groove Virtual Office. Microsoft acquired Groove Networks in April 2005 and named Ozzie Chief Technical Officer.

Honored as one of seven “Windows Pioneers” by Microsoft, Ozzie was named “Person of the Year” in 1995 by PC Magazine. He was inducted into the Computer Museum Industry Hall of Fame and the InfoWorld Hall of Fame, and in November 2000, he received the Institute for Electrical and Electronics Engineers (IEEE) Computer Society’s W. Wallace McDowell Award. He has served as a member of the National Research Council’s Computer Science and Telecommunications Board, and was a member of the NRC committee that produced the landmark CRISIS report on the societal impact of cryptography, a computer security technology.

Ozzie is a member of the National Academy of Engineering, and a World Economic Forum member and governor for IT and telecommunications. He was honored as World Economic Forum Technology Pioneer in 2001.

{ RICK KUBETZ AND KAREN HYMAN }

UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN
COMMENCEMENT ADDRESS MAY 14, 2006

THOMAS M. SIEBEL

I'm profoundly grateful and touched by the distinction and honor and great compliment accorded me by the University of Illinois. I am overwhelmed, as a matter of fact.

In this important place, on this important day, and in this very wonderful assembly, it is a tremendously impressive thing to an individual in my position.

I want to join with your families in congratulations for your accomplishments. And I want to talk about what happens next. I want to talk to you about some decisions that you will have to make. I want to talk to you about what you can expect and opportunities that you are likely to encounter. I want to talk about making a difference. About leaving the world a better place than you found it.

There is a story attributed to the notorious oil magnate, John Paul Getty, Sr. When asked about the keys to success by a young intern, he explained that there were three such essential elements.

First, get a great education. Attend the best schools. Study hard. Be prepared. Become an honor roll student.

Secondly, work hard. Be the first to show up for work. Be the last to leave. Work weekends. Nights. Always do your best. Be a top performer.

The third key to success --- and most importantly -- find oil.

There is some truth in this story.

Think for a moment about the immense opportunities that are before each and every one of you. Your productive careers will span the next six decades. Six decades.

Think about it. **Six Decades.**

In the next six decades the body of scientific knowledge as we know it will increase by a factor of three or more. You will have the privilege of participating in that phenomenon. Many of you will participate significantly in some of the most exciting developments in the history of mankind.

Some of you will discover cures for cancer. Some will perfect the hydrogen fuel cell. Some of you will control influenza pandemic. Some will lead the colonization of outer space. Some will create new companies. Make new products. Create Jobs. Develop new food sources. Foster Prosperity. Husband Peace.

The world will be a better, healthier, happier place for what you will do.

Those of you who take this route will make sacrifices. Lots of sacrifices.

You have all studied history.

Think back upon those individuals who have made a difference. Really made a difference.

Think about it. Think about Winston Churchill, Michelangelo, Louis Pasteur. Think about Ben Franklin and Thomas Jefferson, Isaac Newton, Johannes Gutenberg, Steve Jobs. Think about Sally Ride and Margaret Thatcher. Think about Martin Luther and Martin Luther King.

You have all studied these people. These great leaders are representative of that group who collectively articulated those concepts and principles, the sum of which constitute our perception of the universe, as we know it.

Those great people brought us gravity, electricity, germ theory. They invented the printing press, movable type, the Internet, the Basilica, the public library, the modern university. They created nations, our religions, and democracy. They discovered outer space. And they brought us the very concepts of individual liberty and human dignity.

These people changed the world, each of them.

They all achieved -- and they all achieved at great personal cost.

In addition to amazing work ethics, it seems that these people were unusually sensitive to what was going on around them.

They heard things that other people could not hear. They saw things that others could not see. You might call it vision.

A moment of clarity. Insight. **Inspiration.**

Whatever you call it, at one or more moments in their lives, they saw something. Something different. And they were able to recognize that it was different. That is was potentially important. And they did not let the moment go unnoticed. They did something with it.

Be sensitive to that moment. It will happen to you. Do not let it go unnoticed.

So we have a group of mixed education. Tireless work ethic. Great vision. Perhaps most importantly however, they also were very, very lucky – each and every one.

Now don't discount luck. It will be a critical component of your success. Some people say you make your own luck. There is clearly some truth to that. These concepts of work ethic, vision, and luck seem to be interrelated.

Take Tiger Woods, for example.

Work ethic. He is arguably one of the hardest working, best-prepared athletes in sport. His physical conditioning and practice regimens are second to none.

How about vision? Well, Tiger Woods can see every shot before he takes it. He can see the launch angle. The trajectory. The landing, the bounce, and the roll. He can literally see it every time before he takes a swing. Think about that.

And luck? Well, let's just say it might not be entirely a coincidence that he seems to get more lucky bounces than any person in golf. There is most certainly truth to the idea that you make your own luck. I encourage you to be very alert to what is going on around you. Let's explore this luck thing a little bit further.

There will be some moments in your life when the stars simply seem to align. You will flip a coin 10 times in a row – and it will come up heads every time. You will look up and you will notice that the wind has been at your back every day for a week.

Be ready for that moment. It will happen to you. Some of you will recognize it and know it for what it is...

great, good fortune.

There will be such moments in your life. Seize that moment. That is the start of the next company. The cure for cancer. The hydrogen fuel cell. The next great thing.

There is clearly a non-rational process at the heart of such ideas. It's an idea. It's a vision. It's a feeling. It is something that you know to be true. Take it and run with it.

Take it. When it happens, take it and run with it. Run with it. Don't listen to all the naysayers. The experts. The authority figures. They will stand in line to tell you your idea is impractical, impossible, unrealistic. Don't listen to them. You know it to be true. This is the opportunity you have been waiting for. This is what you are here to do. Don't take no for an answer. Make it happen.

Many of you have not yet figured out what you want to do for a living. Don't feel bad. Most people don't. I had no idea what I wanted to do when I left college. My first job out of undergraduate school was working as a cowboy on a ranch in Idaho. From there, I became a laborer on a construction site in Sun Valley. I managed a shovel.

One closing thought. I want to talk about ethics. Today is Mother's Day -- a most appropriate day to talk about ethics.

Ethics. You will have the opportunity to cross the line every day of your lives, every day of your professional careers. In little ways. In big ways.

Some opportunities will be more tempting than others. Some will seem inconsequential. Some will appear common practice. Here's a litmus test that you can use. What would your mother think? What would she say if you told her about it? If you use that test to gauge your behavior, you will do the right thing.

That's it. Thank you, merciful God; we've reached the end of the speech!

But for you, it is just the beginning. Work hard. Be attentive. Always be watching for that lucky moment. Good luck to you all. And, most importantly, have fun. Make it look easy. Smile a lot.

Siebel generosity continues

“HOUSE OF IMAGINATION” AND “BENCH OF OPPORTUNITY” GRACE SIEBEL CENTER GROUNDS

When it opened in 2004, computer scientists and architects heralded the Thomas M. Siebel Center for Computer Science as an “integrated education and research facility that will attract the world’s best and brightest faculty and students, who will together shape the future of computing for Illinois and the world.” And, now, thanks to the generosity of the board of directors of Siebel Systems, this state-of-the-art building serves as a backdrop for some world-class artwork.

Two massive sculpture installations—“House of Imagination” and “Bench of Opportunity”—by distinguished artist Howard Ben Tre now grace the courtyard between the Siebel Center and the National Center for Supercomputing Applications. A gift of the Siebel Systems board of directors in honor of Thomas Siebel, these sculptures are highly representative of the work of the artist, often compared to Constantin Brancusi and Isamu Noguchi, combining large architectural edifices of glass, metal, and stone with the delicacy of light. A pioneer in the use of cast glass as a sculptural medium, Ben Tre’s work is both sculptural and architectural, reflecting Eastern and Western influences.

“House of Imagination,” features three totemic bronze columns, reaching nine feet in the air and weighing about 1,800 lbs. each. The granite benches that arc around them weigh in at 2,600 lbs. each. Across the courtyard, the “Bench of Opportunity,” a granite bench with a glass center, spans ten feet in diameter and tips the scales at 15,000 lbs.

When illuminated, their glow emanates from circles of light-emitting diodes (LED). It was Nick Holonyak, Jr., the John Bardeen Endowed Chair in Electrical and Computer Engineering and Physics at Illinois, who invented the first light-emitting diode in 1962.

Siebel, who founded Siebel Systems Inc. in 1993, earned three degrees from Illinois: a bachelor’s in history (1975), a master’s in business administration (1983), and a master’s in computer science (1985). He was recognized by BusinessWeek in 2001 as one of the top 25 managers in the world. In addition, Siebel was presented with the U of I Presidential Award and medalion that same year. { KAREN HYMAN }

The image shows three stylized human silhouettes in shades of gray. On the left, a taller figure stands with its back to the viewer, gesturing with its right arm towards the other two figures. In the center, a shorter figure stands facing the taller one. On the right, another taller figure stands facing the central figure. They appear to be in a conversation or presentation. The silhouettes are set against a white background and are positioned above a dark gray horizontal bar that runs across the width of the page.

ALUMNUS THOMAS M. SIEBEL AND WIFE STACEY ESTABLISH THOMAS M. SIEBEL CHAIR IN COMPUTER SCIENCE

The Department of Computer Science at the University of Illinois has received another generous contribution from alumnus Thomas M. Siebel and his wife Stacey. Through the Thomas and Stacey Siebel Foundation, they have established a \$2 million endowment for the Thomas M. Siebel Chair in Computer Science. This gift continues their longstanding dedication to the department's growth and development.

This chair will enable the department to recruit and retain the world's most preeminent faculty and will help maintain the department's reputation as a premier computer science program. Their gift also provides the chair holder funding for a full graduate fellowship to use at their discretion.

In hailing this gift, Department Head Marc Snir stated, "Thomas Siebel's leadership as a computer scientist, entrepreneur, and philanthropist is an example for our students and our alumni to hold as a benchmark of possibilities. The company he created, Siebel Systems, single handedly created a new product category, Customer Relationship Management software. CRM software is now essential in any customer oriented business. The Thomas and Stacey Siebel Foundation is now a leading contributor to important causes such as the fight against methamphetamine addiction."

Thomas and Stacy Siebel's support of the department is broad and comprehensive – from the building that bears his name and the art that graces its grounds, to the students and faculty that are their beneficiaries. In 1999 the Siebel's donated \$32 million to the Department to help build the Thomas M. Siebel Center for Computer Science. This gift allowed the Department to nearly double the size of the teaching and research environment and build a living laboratory where students and faculty can explore the next frontier of interactive computing research and learning. In 2000, Siebel Systems Inc. established the Siebel Scholars Program to support the top graduate students at the nation's leading 11 computer science departments and business colleges, including the Department of Computer Science at the University of Illinois. { KAREN HYMAN }

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The College of Engineering is pleased to provide Always Illinois, an online directory and networking community that contains all Illinois engineering alumni. It offers all the basic functions of an online directory (the ability to search for friends and colleagues) plus the ability to create your own personal network. It's like a College of Engineering version of Facebook or MySpace with the added security and privacy you deserve!

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