PIPELINE

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Mutka Named Acting Chairperson

Matt Mutka has been appointed acting chairperson of the Department of Computer Science and Engineering. The appointment is initially for one year.

Dr. Mutka served briefly in the past as the interim chairperson of the department in 1999. He joined MSU in 1989 after graduating from the University of Wisconsin, Madison in 1988 and spending a year at the University of Helsinki as a visiting scholar. Professor Mutka's research interests include mobile computing, sensor networks, and networking for teleoperation of robotic systems. He is active professionally and brings a record of excellence in research and teaching to the position.

CSE Graduate Program Ranked 18th

The Department of Computer Science and Engineering is ranked 18th in the nation among all computer science graduate programs in an article published in the June 2007 issue of *Communications of the ACM*. The article, "Automatic and Versatile Publications Ranking for Research Institutions and Scholars," was written by Jie Ren, a software engineer at Google, and Richard N. Taylor, a professor of information and computer science and director of the Institute for Software Research at the University of California, Irvine. The authors also rank software engineering programs and software engineering scholars world-wide. The department's software engineering group ranked 21st overall, and 11th among groups at U. S. research universities, and Dr. R. E. Kurt Stirewalt ranked 26th overall among all software engineering scholars.

New Program Forges Partnerships

CSE has developed a Corporate Partnership Program designed to address the nation's needs in corporate recruitment and IT development. Companies are desperate to hire qualified people, but many students are not choosing the IT field. The Lansing area is home to many fast-growing IT companies that provide excellent jobs, but many students are under the false impression that they have to move out of state to get a good job. The Corporate Partnership Program will address these issues. CSE provides partner companies with services to connect them with students and recognizes them for their support. In turn, companies provide CSE with financial support. The program has also helped to connect faculty and students with these companies. For more information about CSE's Corporate Partnership Program, visit www.cse.msu.edu/partners/

Collaborative Effort Empowers Residents

What began as a fragile neighborhood's struggle to preserve green space became an ambitious, MSU-led collaboration to transform lives with technology.

The Info Tech Empowerment Center (iTEC-Lansing) will open its doors to the public in 2008. With a heavy focus on youth programs, iTEC-Lansing will equip Lansing area residents with the skills they need to succeed in today's global economy.

The new center, a collaborative effort between community, industry, and education, will offer hands-on activities designed to teach science, technology, engineering, and mathematics (STEM) skills. MSU students will have opportunities to volunteer at iTEC-Lansing or earn experiential learning credit, and MSU faculty will conduct research on how technology benefits learning. ITEC-Lansing will be housed in the former Holmes Street School in Lansing, which is also the future site of new headquarters for the Spartan Internet Consulting Corporation.

"The community is excited," says Adam Pitcher, CSE systems analyst and president of the Holmes Street School Community Neighborhood Association. "They're happy to see something that will encourage positive growth and build up the neighborhood."

continued on page 2

First Project Already Under Way

The Info Tech Empowerment Center (iTEC-Lansing) held a programming workshop this semester at J.W. Sexton High School.

Teresa VanderSloot and seniors Darren Ghiso and David Robishaw conducted the five-week workshop, which introduced high school students to programming concepts. Using Carnegie Mellon University's free Alice Software, students worked together in small groups to create a graphic story using drag-and-drop programming.

The high school requested another workshop in the spring due to overwhelming interest from Sexton students.

Darren Ghiso helps Sexton High School students at workshop.

from the Chair

MATT MUTKA

Today computer science and engineering emphasizes activities that span many disciplines. Our faculty are international leaders in applying computational approaches to solve significant problems across the disciplines. They are working on educational, research, and service activities in a wide variety of areas. You will find faculty working on biological computing, telemedicine, and computational approaches for law enforcement, biometrics, and security. Faculty are developing sensor networking for effective environmental monitoring. Computational approaches to the humanities and social sciences are being developed. Our faculty are engaged in projects to transform computing education for science and engineering students. The department is involved in outreach to high school students in the formation of the Info Tech Empowerment Center in Lansing. The breadth of engagement across the disciplines is amazing.

Likewise, our alumni are developing innovative technologies and methods for applying computational approaches to multidisciplinary problems. Some of these activities are described within this newsletter. We are proud of our alumni accomplishments. As a faculty, we are excited about the acceleration of innovation that will be part of our students' future careers. We are determined to provide the educational programs to prepare them for these opportunities.

The expansion of multidisciplinary research, education, and outreach in our department has been led by Laura Dillon, our outgoing department chair. As department chair for the last four years, Dr. Dillon has led the formation of alliances between our faculty and researchers in other disciplines, which has been an important factor in the growth of multidisciplinary projects in the department. Our faculty thank her for her leadership and service as chair. It is a privilege for me to take her place for this next year as acting chair of the department. I thank our alumni and friends for their support and look forward to hearing from many of you in the coming year.

Collaborative Effort Empowers Residents (continued)

David Hollister, president and CEO of the Prima Civitas Foundation, worked with CSE faculty and staff to assemble a team of colleagues from MSU, Spartan Internet Consulting, Dewpoint, Inc., the Lansing School District, and local nonprofit organizations. Their vision: to empower Lansing with technology.

ITEC-Lansing Partners

MSU

College of Education
College of Engineering
Department of Computer Science and Engineering
Department of Psychology
Department of Telecommunication, Information Studies and Media
University Outreach and Engagement
Writing In Digital Environments (WIDE) Research Center

Community

Capital Area Community Media Center
Dewpoint, Inc.
Holmes Street School Community Neighborhood Association
Lansing Economic Development Corporation
Lansing Public Schools
Prima Civitas Foundation
Spartan Internet Consulting Corporation

Computing and information technology (IT) jobs are among the fastest growing, highest paying in America. There is a wealth of IT career opportunities available in Mid-Michigan, but local businesses are struggling to fill these positions. ITEC-Lansing will address this problem by providing residents free access to technology and by teaching technology skills that apply to everyday life.

"I believe in this project," says Professor George Stockman. "When you inspire kids and adults to explore science and technology, you provide them with opportunities they may not have had otherwise. This also benefits MSU enrollment and gives companies a pool of trained technology professionals."

The key, Stockman explains, is to engage children with "cool" technology. ITEC-Lansing will provide activities that encourage them to explore technology as a community. For example, children might participate in a group programming activity where they create a story using 3-D graphics.

The team is eager to partner with more businesses and organizations to promote technology in the Lansing area. "We're thrilled to be part of the effort to revitalize mid-Michigan and promote a strong economy," says Teresa Isela VanderSloot, CSE academic adviser. "There are multiple opportunities for different types of collaboration."

Stockman, Pitcher, and VanderSloot are all on the iTEC Board of Directors. Other faculty involved include Professor Laura Dillon of CSE and Linda Jackson, psychology and CSE adjunct professor.

ITEC-Lansing is unique, VanderSloot says. "It's a win-win situation. This is a truly collaborative effort, and it's about giving back and making a difference, an impact in the Lansing area. We're making a big investment in Lansing."

"So many people have encouraged this and said they are willing to help out," Pitcher says, adding that the project would not have been possible without the Prima Civitas Foundation, Engineering Dean Satish Udpa, the Lansing Economic Development Corporation, and Lansing Mayor Virg Bernero. "This is a unique adventure, and every aspect has been incredible."

Learn more: http://www.iteclansing.org

— Kim Glass Thompson

2007 CSE Graduation Breakfast

Kevin Ohl Starts New Endowment in Honor of Class of 2007

Harley J. Seeley

Kevin Ohl

Spring 2007 CSE graduates and their families as well as faculty, staff, and friends enjoyed breakfast and fellowship at a graduation breakfast. This marks the 10th year that Crowe Chizek and Company LLC has sponsored the event, and it attracted more than 200 attendees, a record high for the event.

Highlights this year included a welcome message from Dean Satish Udpa, and thoughts and remembrances delivered by BS graduate James Pita and PhD graduate Farshad Samimi.

The breakfast featured CSE alumnus Kevin Ohl ('78, MBA '81), an executive with Crowe Chizek, a top 10 accounting and consulting firm based in Chicago. Ohl challenged the new graduates to reach for high goals and strive for personal fulfillment. He praised the graduates for their achievements and urged them to be mindful of the role that others played in their success. He then presented CSE Chair Laura Dillon with a check for $3,000 to provide initial funding for a new endowment in honor of the class of 2007. The purpose of the endowment is to provide scholarships to CSE students. Ohl hopes that this will serve as an avenue where graduates will target their future contributions to CSE, when the time is right. Ohl, who was the recipient of the first CSE Distinguished Alumnus Award in 2004, frequently drives from Chicago to participate in CSE classes as a speaker and to host tailgate parties at MSU home football games.

Melanie Foster, Vice President of the MSU Board of Trustees, and Tom Izzo, MSU men's basketball coach, attended the graduation breakfast this year to celebrate the graduating class and honor Kevin Ohl's role as a dedicated alumnus and active member of the MSU community. CSE academic adviser Teresa VanderSloot organized the event.

Endowments, Gifts, and Donations

Tony D. Lewis Enrichment Fund Established

Tony D. Lewis (BS '81) has established the Tony D. Lewis Enrichment Fund in Computer Science and Engineering. This endowment is intended to maintain and further improve the quality of CSE faculty and academic programs and to encourage students to participate in the academic affairs of the department. As an undergraduate, Lewis served as a representative on the department's curriculum committee, which he describes as one of his most rewarding experiences as an MSU student.

The endowment can be used to support any number of CSE programs, such as enabling students to attend regional and national conferences, or promoting programs and activities that support and encourage students from traditionally under-represented minority groups to pursue careers in the computer science and engineering field.

Lewis is a senior information security analyst for Intuit, where he coordinates the security awareness program, maintains information security policies, and conducts security assessments of Intuit applications.

Auto-Owners Insurance Donates to Capstone Lab

Wayne Dyksen, CSE professor, received a gift from Auto-Owners Insurance to support the senior capstone design course. The money will be used to make improvements in the lab and to support the course.

Auto-Owners, one of the largest property and casualty insurance companies in Michigan, has provided student projects to the CSE capstone course for five semesters. The company's involvement with the course has benefited CSE students and helped the company to successfully recruit graduates.

Bob Buchanan and Betsy Holland (center) of Auto-Owners Insurance present gift to Professors Wayne Dyksen (far left) and George Stockman (far right).

MICWIC 2007 Was Huge Success

Conference inspires women in computing

The inaugural Michigan Celebration of Women in Computing (MICWIC) brought together more than 100 people at the Kellogg Biological Station in Hickory Corners, Mich., in March 2007. The conference provided a forum for participants to explore computing careers, share student research, and discuss successful strategies for teaching technology. It also sent a strong, positive message about women's roles in shaping the future of technology.

Attendees overwhelmingly agreed that MICWIC was an excellent networking opportunity and that it was valuable to see the success of technical women making advances in computing. MICWIC 2007 was part of a nationwide effort to address the decline in American women choosing computer science professions.

MSU CSE collaborated with computer science faculty from six other colleges and universities across the state to plan MICWIC 2007. Laura Dillon, CSE professor, was the conference chair. Teresa Isela VanderSloot, CSE academic adviser, and Beata Sarna-Starosta, MSU post-doctoral researcher, were conference coordinators. Keron Greene, MSU alumna, was conference assistant, and Kirsten Partyka, CSE student, was the Webmaster.

The Dow Chemical Company was the main sponsor of the conference. Dow also made a donation to MSU Women in Computing. During MICWIC, the MSU women in computing student group gave Tracy Teich, information systems director with Dow and a featured speaker, a letter of appreciation.

Other MICWIC sponsors included Crowe Chizek and Company LLC, Google, IBM, ACM-W, Eaton Automotive, and TechSmith Corporation.

To learn more about MICWIC, visit www.cse.msu.edu/MICWIC.

Tracy Teich of Dow Chemical Company (second from right) receives letter of appreciation from MSU Women in Computing officers. From left to right: Stephanie Cook, Tania Yusaf, and April Noren.

Faculty and Staff Pipeline

Joyce Chai's research was featured in the October 4 issue of the *Great Lakes IT Report (GLITR)*. Writer and editor Matt Roush visited MSU as part of *GLITR*'s Fall 2007 Tech Tour, a two-week journey investigating "the latest and greatest research that's creating the jobs of tomorrow in Michigan." The research interests of Chai, associate professor, include natural language processing and multimodal conversational systems.

Yi Chen, PhD student, and **Anil Jain**, University Distinguished Professor, received Best Paper Award for their paper "Dots and Incipients: Extended Features for Partial Fingerprint Matching" at the Biometric Consortium Conference Biometrics Symposium in Baltimore, Md., in September. Lockheed Martin sponsored the award.

Betty Cheng, professor, **Philip McKinley**, professor, **Charles Ofria**, assistant professor, and **Richard Lenski** (director of the Ecology, Evolutionary Biology and Behavior Program) were awarded a grant from the National Science Foundation for a project titled "Applying Digital Evolution to Behavioral Models." The project addresses how digital evolution can be used to improve the design of self-adaptive computational systems.

Richard Enbody, associate professor, **David Tomanek** (professor of physics), and **Young-Kyun Kwon** (PhD in physics from MSU '99, currently assistant professor of physics at the University of Massachusetts-Lowell) have been awarded a patent for "Micro-Fastening System and Method of Manufacture" (U.S. Patent 7,181,811). This is a hook-and-loop, Velcro-like fastening system using carbon nanotubes to form the hooks and loops – hence, the nickname, "Nano-Velcro." Since carbon nanotubes are one of the strongest materials known and are stable at thousands of degrees Kelvin, this bonding mechanism is very strong. Although similar to Velcro in how it binds, the unyielding nature of nanotubes prevents them from coming apart. The research was a result of a computational intensive collaboration between the physics and computer science and engineering departments at MSU.

Anil Jain, University Distinguished Professor, was featured in the News and Views section of the September 6, 2007, issue of *Nature*. In an article titled "Technology: Biometric Recognition," Jain describes how cutting-edge biometric identification technology will shape the future.

In addition, the U.S. Army announced it has contracted New Mexico-based Lumidigm Inc. for continued development of whole-hand biometric sensors. Jain is assisting with this project. Lumidigm is a fingerprint sensors developer, using multispectral imaging biometrics for identity management. "Lumidigm's multispectral imaging makes a whole-hand sensor technically feasible and commercially promising," Jain says.

Rong Jin, assistant professor, has received an NSF CAREER Award for his project "Large-scale Multi-Label Learning." This project aims to address two fundamental challenges of large-scale multi-label learning: rare class classification and classifying data with similar input patterns. Jin will develop a relation propagation framework for multi-label learning that exploits a variety of semi-learning technologies.

Alex Liu, assistant professor, and Tao Xie (assistant professor of computer science at North Carolina State University) were awarded a grant from NSF for a project entitled "A New Approach to Testing and Verification of Security Policies." The project aims to unify application-level and network-level security policies, and develop rigorous testing and verification techniques for unified security policies.

Charles Ofria, assistant professor, has received an NSF CAREER award for his project, "Digital Evolution and Biocomplexity: From Biological Theory to Computational Applications." The goals of this project are to understand the processes by which evolution designs complex functions in the natural world and to apply this knowledge to solving computational problems.

Robert Pennock was among three MSU professors honored as American Association for the Advancement of Science (AAAS) Fellows. Pennock, a member of the CSE Digital Evolution Laboratory, is recognized for distinguished service in voicing the philosophical deficits in the pro-intelligent design argument and defending against its inclusion in science teaching.

William F. Punch, associate professor, has been named as the new faculty director of the MSU High Performance Computing Center (HPCC), which is located in 3200 Engineering Building. HPCC provides faculty and students with easy-to-use computational resources that dramatically enhance the university's research capabilities.

Jon Sticklen, associate professor, is a co-principal investigator on the MSU team awarded an NSF grant to transform computing education. The project will align academia and industry in an effort to revitalize Michigan's workforce. The goal of the two-year grant is to help students move into the workforce as agile thinkers who can use software and computation and strategic thinking skills to solve problems, and to develop a collaborative process to bring higher education and industry together to understand each other's needs.

Kurt Stirewalt, associate professor, and **Laura Dillon**, professor, have been awarded a grant from NSF for a project entitled "Using Contracts to Support Development, Verification, and Maintenance of Multi-Threaded Systems." A principal difficulty for the design of high-assurance software is to safely accommodate and optimize concurrency and synchronizations. This project will investigate a promising "design for verification" (D4V) approach.

Li Xiao, assistant professor, **Matt Mutka**, professor, and **Ning Xi** (professor of ECE) have been awarded a grant from the National Science Foundation for a project entitled "LEAPNet: Self-adaptable All Terrain Sensor Networks." This project addresses the design, prototyping, and evaluation of hopping sensors and efficient algorithms for sensor deployment in difficult areas and rugged terrain.

2007 Withrow Teaching Excellence Award

Mark H. McCullen, academic specialist, received a Withrow Teaching Excellence Award at the 17th annual Engineering Awards Luncheon in March. This award recognizes faculty and staff who have demonstrated excellence in instructional and scholarly activities and rendered distinguished service to the university and the student body. Selection is based primarily on nominations from students.

McCullen is a fourth-time recipient of the Withrow Teaching Excellence Award. His students describe him as an approachable instructor who will go out of his way to help and encourage them. His engaging teaching style and extensive knowledge of the subject matter complements his ability to deliver complex course material in a manner that is easy to understand. McCullen's class projects inspire students to fully explore the relevance and applications of course content. In addition to praising his sense of fairness and his talent for creating a positive learning environment, students frequently name him as one of their favorite instructors.

2007 Withrow Student Service Award

Teresa Isela VanderSloot, academic specialist, received the 2007 Withrow Student Service Award at the 17th annual Engineering Awards Luncheon in March. This award is presented to an adviser, academic specialist, or non-tenure-track instructor for outstanding service to students in the college.

VanderSloot shepherds CSE undergraduates from first year to last with caring vigor. In this past year, she has embarked on new initiatives in advising and career development. She organizes the freshman (291) and senior (491) seminars, and in both contexts introduces students to speakers from industry.

In fall 2006, she created a new project assigning senior mentors to groups of undergraduates in CSE 291. At the urging of David Hollister, president and CEO of the Prima Civitas Foundation, she took responsibility for developing industrial partners, which was successful in linking CSE and our students with local companies interested in hiring graduates or working with our faculty. She also applies significant effort in working with student organizations — the Association for Computing Machinery (ACM) and MSU Women in Computing (WIC), and took the lead in organizing and obtaining funding for the Michigan Celebration of Women in Computing regional conference last spring.

2007 Distinguished Faculty Award

Betty H. C. Cheng, professor, received a Distinguished Faculty Award at the annual university-wide Awards Convocation in February.

Cheng is an internationally recognized scholar for her contributions in software engineering. Cheng investigates methods for building large, reliable, and maintainable software systems, such as onboard control systems in cars, trains, and patient care systems. Over the past 16 years, she has obtained nearly $9 million in funding from external sources. Cheng is on the editorial boards of three journals and serves on the organizing committees for top conferences in her field.

Betty H. C. Cheng (right) receives the Distinguished Faculty Award from MSU President Lou Anna K. Simon.

Cheng is active in curriculum development, pedagogical research, innovative laboratory development, and defining a new paradigm for the computer science and engineering capstone course that brings in customers from high-profile companies to give students experience with real-world project data.

New Faculty

Erik Eid has joined the CSE 101 team as an instructor. He is coordinating multiple sections of the course and training student assistants, as well as co-teaching the course. Eid holds a master's degree in computer science from Bowling Green State University. He spent nearly a decade working in the software industry and is bringing his diverse technical and qualitative experiences as a software developer to the classroom. He has taught courses in programming and discrete mathematics at Albion College and the University of Michigan.

Alex X. Liu has joined the department as an assistant professor. He received his PhD ('06) and MS ('02) in computer science from the University of Texas at Austin. Liu has received numerous awards including the 2004 IEEE-IFIP William C. Carter Award and the 2005 George H. Mitchell Award for Excellence in Graduate Research. His research interests include computer and network security, dependable and high-assurance computing, applied cryptography, computer networks, operating systems, and distributed computing. Prior to coming to MSU, Liu was a graduate research/teaching assistant at the University of Texas at Austin.

Student Pipeline

2007 CSE Outstanding Graduate Student Award

Yi Chen (far right) gives Pattern Recognition and Image Processing (PRIP) Lab visitors an overview of biometric research.

Yi Chen, PhD student, received the 2007 National Institute of Justice (NIJ) Graduate Research Fellowship to support research for her dissertation "Automatic Fingerprint Recognition Using Extended Feature Set," under the supervision of Anil K. Jain, University Distinguished Professor.

The Graduate Research Fellowship provides dissertation research support to outstanding doctoral students undertaking original research that has direct implications for criminal justice in the United States. Selection criteria include quality and technical merit, project impact, and capabilities of the applicant.

This spring at the College of Engineering Student Awards Reception, Chen was named the 2007 CSE Most Outstanding Graduate Student. She received her BS in computer science from Sichuan University in China. Her research focuses on fingerprint matching requiring expertise in image processing, pattern recognition, and statistical analysis. Chen has published many conference and journal papers and makes numerous workshop presentations. She is also recognized for her excellence in the classroom and her all-around contributions to MSU.

Carl V. Page Memorial Graduate Fellowship

Paul Cornwell with autonomous robot DAV in the CSE Embodied Intelligence Lab.

Paul Cornwell, a first-year PhD student, has been awarded the Carl V. Page Memorial Graduate Fellowship. Cornwell earned his BA from Northern Michigan University with a double major in computer science and psychology and a minor in mathematics. He is pursuing artificial intelligence research in the CSE Embodied Intelligence Lab under professor John Weng.

The Carl V. Page Memorial Graduate Fellowship was established in 1997 in memory of Carl V. Page, professor and founding member of the computer science department at MSU. Recipients are selected on the basis of a demonstrated interest in and aptitude for computer science studies. To learn more about Carl V. Page and his impact on the CSE department, visit www.cse.msu.edu/endowment/carl_page.php.

MICWIC Best Paper Award

Photo by Wesley R. Elsberry

Laura Grabowski works with three robots that are being used for research in the Digital Evolution Laboratory.

Laura Grabowski, PhD student in the Digital Evolution Laboratory, received a Best Paper Award at the 2007 Michigan Celebration of Women In Computing (MICWIC). The paper was titled "Robot Navigation: A Developmental Approach." For her research, Grabowski, whose advisers are Charles Ofria and Robert T. Pennock, is involved in the Evolving Intelligence Project. This project investigates the evolutionary emergence of simple intelligent behavior. Grabowski is particularly interested in simple behaviors that underlie navigation.

CSE Graduating Senior Honored by Trustees

Andrew Kreling, left, visited the MSU campus recently to recruit students.

At its spring 2007 meeting MSU's Board of Trustees recognized graduating senior **Andrew Kreling** for academic achievements. The CSE major was also a member of the Honors College. He was among 23 seniors to receive this honor, all of whom had achieved a perfect 4.0 grade point average. Board of Trustees Awards are granted at each commencement to students having the highest GPA at the close of their last semester in attendance. Kreling is the son of Jack and Sue Kreling. He is a 2002 graduate of Otsego High School. Kreling now works for Google in Mountain View, Calif.

Walker Receives NSF Research Fellowship

Bess Walker, left foreground, helps a student at the 2007 MICWIC conference.

Bess Walker has received a National Science Foundation (NSF) Graduate Research Fellowship award. Walker is in her first year of graduate study. She is pursuing a PhD degree under the direction of CSE assistant professor Charles Ofria, who is director of the Digital Evolution Lab. Walker's research focuses on the effects of ecosystems on the evolution of complexity.

The NSF Graduate Research Fellowship provides three years of support for graduate study leading to research-based master's or doctoral degrees.

Poster Workshop Is CSE Tradition

Eric Torng (left), CSE graduate director, talks to a student during the 2007 CSE Poster Workshop.

The 2007 CSE Poster Workshop took place on Friday, April 13. Thirty-eight groups of student researchers displayed their posters in the third-floor hallways of the Engineering Building and explained their work as part of an annual tradition that promotes recognition of student research. Corporate partners for this event were Liquid Web, Sircon, and TechSmith. Rong Jin, assistant professor, organized the event. Posters and abstracts are available at: http://links.cse.msu.edu:8000/poster07/index.html.

2007 CSE Academic and Service Awards

The following CSE undergraduate students received College of Engineering Academic Achievement Awards for their outstanding academic performance at MSU. In addition, students were honored for their exemplary service to the MSU community.

Senior Academic Achievement Awards: Keith Barber, Chad Klochko, Andrew Kreling, and James Pita.

Junior Academic Achievement Awards: Derek Gebhard, Brett Lesnau, and Matt Newman.

Service Award Recipients: Kira Johns, Kirsten Partyka, and James Pita.

Alumni Pipeline

CSE Distinguished Alumni Award

Honda Shing (MS '88, PhD '92) received the Computer Science and Engineering Distinguished Alumni Award at the annual College of Engineering Alumni Awards Banquet in May. Established in 2004, this award recognizes an alumnus who has distinguished himself/herself as a leader in the computer science and engineering profession. Nominations are made by faculty, alumni, and other supporters of the department. The winner is selected by the department chairperson and advisory committee.

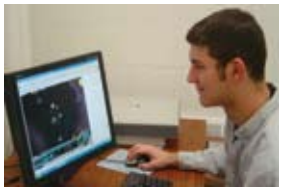
Shing, a native of Taiwan, is a successful entrepreneur and innovative software engineer. He began his professional career prior to graduation, serving as system manager for MSU's computer science department as a PhD student, where he made many significant contributions to the department's research computing facilities.

His PhD thesis solved a well-known problem in the design of shared-memory multiprocessors. He developed a set of tools and scripts to efficiently manage a networked multiserver computing environment, which became known as "Honda Normal Form" and was adopted by other organizations.

Upon leaving MSU, Honda joined Unisys Corporation in San Jose, California, as a senior software engineer, continuing his work on multiprocessor operating system design. He started his own business in 1995, developing tools for rapid development of application software systems. In 1998, he co-founded InterVideo, which soon became a leading provider of digital video disc (DVD) software. The company's first product, WinDVD, an application for viewing DVDs on a PC, corresponded with the initial surge in demand for DVD drives. InterVideo was the first company to build a version that worked on all Windows systems and the first to provide a Lynx DVD software player. The cross-platform advantage helped InterVideo secure bundling deals with 13 of the 15 largest PC manufacturers worldwide. InterVideo went public in 2003 and by 2006 InterVideo had 803 employees worldwide, with regional offices in Europe, Taiwan, and Japan. InterVideo was recently acquired by Corel Corporation of Canada for a reported $198.6 million.

Honda lives in San Mateo, California, with his wife, Anne, and their three-year-old son, Daniel. He is an enthusiastic supporter of the College of Engineering and MSU. Being a dedicated Christian and Sunday school teacher, his next goal in life is to further prepare himself for Christian ministry. He also plans to re-enter school to pursue the study of physics.

Alumni News



Scott Brodie helped create a new computer game while an intern at Microsoft. He is now a full-time employee at Microsoft.

Scott Brodie (BS '06) was featured in a recent *Seattle Times* article for his role in creating the new Xbox 360 game "Aegis Wing" during a 2006 summer internship at Microsoft. Brodie, who is the former president of the MSU student group Spartasoft, is now a full-time Microsoft employee, working in Redmond, Wash., at Carbonated Games, an internal studio that develops casual games for a number of Microsoft platforms.

Nalini Ratha (PhD '96) was recently elected a fellow of the IEEE. Ratha is a research staff member at the IBM Thomas J. Watson Research Center, Yorktown, N.Y., where he is a member of the Exploratory Computer Vision Group. His current projects include fingerprint analysis and recognition, biometrics system performance evaluation, and enhancing the security and privacy of biometrics authentication systems. He holds 11 patents and has authored more than 60 publications, including a popular graduate level textbook *Guide to Biometrics* and a co-edited volume entitled *Automatic Fingerprint Recognition Systems*.

Arun Ross (MS '99, PhD '03) received an NSF CAREER Award for his proposal "Human Recognition: Models for Biometric Pattern Representation, Individuality, Indexing and Fusion." Ross is an assistant professor at West Virginia University, where he teaches courses in discrete mathematics, advanced biometrics, and pattern recognition. He is co-author of the book *Handbook of Multibiometrics.*

Mango Languages co-founders, clockwise from top left: Jason Teshuba, CEO; Ryan Whalen, Chief Marketing Officer; Mike Goulas, Program Director; and Mike Teshuba, Chief Technical Officer.

Jason Teshuba ('00) and his brother **Mike Teshuba** ('01), with MSU alum **Mike Goulas** ('98) and Ryan Whalen, are embarking on the business of their dreams with the launch of mangolanguages.com on August 31, 2007. Based in Novi, Mich., Mango Languages provides users with an efficient way to learn a foreign language online at their own pace. It features a comprehensive teaching approach that engages audio and visual cues to assist users in language acquisition.

This online language lab of the future features 100 lessons in nearly a dozen foreign languages with plans to expand the courses available to other languages. Students learn the vocabulary and grammar of the language by learning to engage in real and meaningful conversations, as compared to the traditional approach where students learn with grammar rules and vocabulary lists. The user sees the foreign word spelled out and can then click on each word to hear it pronounced by a native speaker or can click a button to hear the whole sentence spoken by a native speaker at a conversational pace. There is a patent pending on this approach.

Please fill out both sections when making a gift or pledge.

KEEPING IN TOUCH

NAME

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GRADUATION YEAR DEGREE

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News of recent accomplishments, awards, or promotions (Use separate sheet if needed):

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☐ Credit card charge to: ☐ MasterCard ☐ Visa ☐ Discover ☐ AmEx

CARD NUMBER EXP. DATE

NAME AS IT APPEARS ON CARD

SIGNATURE

☐ A pledge of the following duration (maximum 5 years): _____
Enclosed is my first payment of $ _____
Please send pledge reminders: ☐ Annually ☐ Quarterly ☐ Semiannually
beginning: _____ (MONTH) _____ (YEAR)

☐ This pledge replaces all other outstanding pledges.

☐ This is a joint gift with my spouse: _____ (SPOUSE'S NAME)

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2007 Graduation Breakfast

Above left, general scene at CSE Breakfast during Spring 2007 graduation. Above, PhD student Borzoo Bonakdarpour (left) congratulates PhD graduate Dr. Farshad A. Samimi. At left, Melanie Foster, Vice President of the MSU Board of Trustees, presents Kevin Ohl with a plaque to honor his role as a dedicated alumnus and active member of the MSU community. See story on page 3.

MICWIC 2007 Huge Success

From left, CSE students Marie Buckner , Merav Nahoom, Stephanie Cook, Meghan McNeil, Stephanie Ortiz, and ECE student Tania Yusaf have fun at MICWIC. See story on page 3.