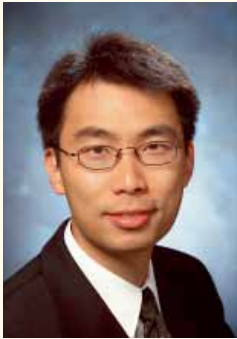


ALUMNI SPOTLIGHT:

EDMOND CHOW



CSE alumnus Edmond Chow (Ph.D. 1997) is a computer scientist at D. E. Shaw Research in New York where he works on algorithms and software for high performance

molecular dynamics simulations.

These simulations determine the motion of atoms using classical physics and models of how atoms interact, called force fields. Chow said computational chemists are using this technology to investigate proteins and the mechanisms behind their function, which could ultimately lead to better pharmaceuticals.

One highlight of Chow's recent work is

a parallel code for performing molecular dynamic simulations. "We put a lot of effort into making it really fast," he said. A paper he co-authored on the subject won the Best Paper Award at the 2006 ACM/IEEE Supercomputing Conference in Tampa, Florida.

During his graduate work at the University, CSE professor Yousef Saad served as Chow's advisor. Chow said he has many fond memories of the University and Professors Saad, Haesun Park and Daniel Boley.

He said he often wishes that he would have stayed in graduate school longer, singling out math and physics as courses he would have taken.

CSE professor Yousef Saad described Chow as a "good success story." He said that Chow made quite an impression as the "new kid on the block," when only a couple

months after his arrival to the department Chow had a well received paper at a conference on iterative methods.

In between receiving his doctorate and his current position, Chow worked as a computational scientist and project leader in the Center for Applied Scientific Computing at Lawrence Livermore National Laboratory. There he worked on large-scale simulations solving large linear systems; a direct offshoot of his doctoral thesis. During this time, Chow was awarded a Presidential Early Career Award for Scientists and Engineers (PECASE), the highest award bestowed by the United States government to engineers and scientists beginning their careers.

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ALUMNI SPOTLIGHT:

BRAD MILLER



At 9-years-old, CSE alumnus Brad Miller (Ph. D. 2003) knew that he wanted to go into computer science. He said the fascination began when his

school received its first Apple computer and he had his first taste of programming.

Fast forward to today; Miller is a computer science professor at Luther College in Decorah, Iowa, where he completed his bachelor's degree. He teaches undergraduate students everything from computer graphics to programming. He also participates in research with students and has co-authored textbooks with fellow Luther professor David Ranum, including, *Problem Solving with Algorithms*

and *Data Structures Using Python*, and another textbook set to be published in February, 2008.

While Miller's job requires him to be nimble in all areas of computer science, his background lies in recommender systems. He said sorting through all of the information on the Internet has always been an issue, but recommender systems offer solutions.

While attending graduate school at the University of Minnesota in 1995, Miller began working with CSE professors Joseph Konstan and John Riedl on various projects, including GroupLens. Soon they discussed forming a company, along with post-doctoral students David Gardiner and Steven Snyder (psychology). In 1996, they formed Net Perceptions, pioneering the commercialization of recommender systems. The company became one of the



University's most successful technology start-ups. At its peak, Net Perceptions was one of Minnesota's leading information technology companies, with a market capitalization of more than \$1 billion. Miller's involvement yielded accolades, including the distinction of Fellow of the World Technology Network and receiving the Sloan E-Commerce Award from MIT in 1999.

Prior to attending graduate school, Miller spent 10 years in the industry sector. He worked at Control Data in expert systems in energy management and then later at a company called Apertus as project leader for expert systems. Luther's Ranum said Miller's diverse industry background is a great asset to Luther College. "His technical knowledge is unmatched," he said. "We really lucked out and kind of got the best of both worlds when we hired Brad."

ALUMNI SPOTLIGHT:

JIM PICHLER



CSE alumnus Jim Pichler (M.S.S.E. 2003) isn't afraid of a challenge. He ambitiously nurtured two highly successful start-up

companies in the past 15 years; Technology Squared and Digital River, while still finding time for volunteering.

After graduating with a bachelor's degree from the University of Minnesota-Duluth, Pichler took a job with a small start-up, called Technology Squared. In that job he did everything from setting-up the network to wiring.

The company grew fast and in 1995 Pichler's talents were tapped for a spin-off company, called Digital River. At Digital River, Pichler thrived on building e-commerce stores. The company soon became a world leader in digital software downloads. In 1998, Pichler designed the systems integration for the company, which is still widely used today. He also

refined an expertise in fraud prevention, a topic that he has published papers on and speaks about at conferences.

Pichler returned to academia in 2001, entering the CSE's two-year Master of Science in Software Engineering (MSSE) Program, administered by the University of Minnesota's Software Engineering Center (UMSEC). He attended classes on select days, while continuing to work at Digital River full-time. Pichler, who currently serves as Digital River's Senior Director of Software Quality Assurance, said the program had a definite impact on his career and forced him to think differently about his work.

While Pichler has proven to be goal-focused in the business and academic worlds, he is equally passionate about reaching out to children and encouraging early involvement in science and technology fields. He is the president-elect of the University's Institute of Technology Alumni Society (ITAS) and plays a major role in leading K-12 activities and outreach. In addition, he's a senior member of the IEEE computing group and currently serves as a member of the CSE department's

Computer Science Associates group and Eden Prairie's Partnership for Emergency Readiness Consortium.

CSE professor Mats Heimdahl, also the Director of UMSEC, said that in addition to serving on many volunteer boards, Pichler also routinely helps with University events. "Jim has been an invaluable resource for the department and the Institute of Technology," Heimdahl said. "We have to be careful so to not wear him out."

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ALUMNI ACHIEVEMENTS

Brian Bailey (Ph. D. 2002) received the National Science Foundation's Faculty Early Career Development (CAREER) award. Bailey is an Assistant Professor of Computer Science at the University of Illinois-Urbana.

Chen Even (B.A. 1989) was appointed chairman of the board of directors for a biodiagnostics company, Glycominds Ltd., which specializes in glycan biomarkers for disease diagnosis and management. Even is the Senior Corporate Vice President of Commercial Operations and board member for the Italian diagnostic company, DiaSorin.

Dean Hougen (Ph.D. 1998) was promoted to Associate Professor with tenure at the University of Oklahoma.

Richard Keeney (B. S. 1986) ran for a seat on the Prior Lake City Council this November, but lost by approximately 100 votes. Keeney is employed by Electronics for Imaging with an office in Eagan, Minn. Since graduating, Keeney has authored nearly a dozen U.S. Patents and received a Scientific and Engineering Academy Award from the Academy of Motion Picture Arts and Sciences in 1991.

Kurt Krebsbach (Ph.D. 1993) was promoted to Associate Professor with tenure at Lawrence University.

Steve Lindfors (M.S. 1976) completed a new APL interpreter. The features include complex numbers, user-defined functions, recursive functions, and both real and complex simultaneous equations.

Colin McMillen (B.S. 2003), a doctoral candidate at Carnegie Mellon University, received a Best Paper Award at the Twenty-Second Conference on Artificial Intelligence (AAAI-07) for his paper entitled "Thresholded Rewards: Acting Optimally in Timed, Zero-Sum Games."

Nancy Reed (Ph.D. 1995) was promoted to Associate Professor with tenure at the University of Hawaii, Manoa.

Karen Sutherland (Ph.D. 1994), a Professor at Augsburg College, was appointed to serve as a member of the CRA Computing Community Consortium Council, aimed at fostering the development of new research directions in computing.