FACULTY PROFILE

Steven J. Ratering

Dr. Steven J. Ratering joined the CS Department in the fall of 2003, the second of two new hires resulting from the state supported Chippewa Valley Initiative. Steve received his B.S. in Mathematics and Computer Science from Central College in Pella, Iowa, 1984, and his M.S. and Ph.D. in Computer Science from the University of Minnesota in 1987 and 1992, respectively. After teaching computer science at his alma mater, Central College, from 1987 to 1997, he joined Lucent Technologies in Naperville, Illinois to develop software for a telecommunications switch.

Steve and his wife Karen met in their church choir and got to know each other rehearsing for Dutch dancing at Pella’s Tulip Time. They have three children born in Minnesota, Iowa, and Illinois. They enjoy swimming, biking, playing in parks, and walking together.

Steve has a variety of teaching interests including theory of computation, artificial intelligence, discrete mathematics, data structures, algorithms, and software engineering. He is also looking forward to developing his research interests in the Department.

With Steve’s addition to the Department, we now have five faculty with advanced degrees from the Computer Science program at the University of Minnesota. We’re very excited to have Steve join us, and we’re confident that he’ll make a significant impact on our students and our computer science program.
Six New Freshmen EMACS Scholars Named

Six students entering the University of Wisconsin-Eau Claire this coming fall will be the first freshman to receive Excellence in Mathematics and Computer Science Scholarships as part of a new program beginning with the 2003-04 academic year. The new EMACS scholars are Tina Baker, West Salem; Joshua Burton, Knapp; Marcus Clare, Hayward; Travis Gruchow, Waterloo; Jenna Helbing, Platteville; and Amanda Schara, Athens.

In September 2002, it was announced that the Department of Computer Science and the Department of Mathematics at the UW-Eau Claire had received a $400,000 grant from the National Science Foundation (NSF) to develop the EMACS Scholarship Program. Dr. Michael Howe, Associate Professor of Mathematics, Dr. Andrew Phillips, Professor of Computer Science, and Dr. Alex Smith, Associate Professor of Mathematics, developed the EMACS Scholars program, which will provide 30 students – new freshmen on currently enrolled students who demonstrate financial need and academic potential – with scholarships as well as support in the form of faculty and peer mentoring, student/faculty research opportunities, career counseling that includes preparation for graduate school, and service-learning and internship opportunities.

When announcing the grant, the NSF reviewers noted UW-Eau Claire’s outstanding faculty and academic programs, the importance the university places on student-faculty research, the quality of its mathematics and computer science programs, and the overall excellence of the university.

14 New Computer Science Scholarships Awarded

Fourteen computer science students have been named the first recipients of Karlgaard Computer Science Scholarships, which cover either full or half tuition per academic year. Seven returning students will receive Karlgaard Scholarships: sophomore Brett Allenstein, West Bend; sophomores Aulin Laski, Haugen; sophomore Michael Lemay, Eau Claire; senior Heidi Miller, Richland Center; freshman Christopher Spencer, Eau Claire; senior Theresa Steffen, Ooscota; and senior Marcia Vaughn, Medford. In addition, another seven incoming freshmen will also receive Karlgaard Scholarships: Scott Alkison, Menomonie; Joshua Burton, Knapp; Mark DeNeve, Altoona; Eric Lobner, Wisconsin Rapids; Karen Poels, Brookfield; Stephen Smith, Cassville; and Michael Weber, Hudson.

All Karlgaard Scholars are selected based on merit; all freshman applicants must have a minimum GPA of 3.5, while all returning students must maintain a minimum 3.0 GPA. In addition, Karlgaard Scholars must be either computer science or software engineering majors at UW-Eau Claire and must collaborate with a computer science faculty member to produce at least one scholarly publication and/or formal presentation external to UW-Eau Claire in each of their junior and senior years.

The Karlgaard Computer Science Scholarship Fund was established in April 2002 as part of the Karlgaard Excellence in Computer Science Program. The program is funded by a $500,000 pledge from David and Marilyn Karlgaard of Fairfax, Va., to the UW-Eau Claire Foundation’s ongoing comprehensive fund-raising campaign, fulfilling the Promise of Excellence. The Karlgaards’ campaign gift also includes a $4 million trust, which ultimately will endow the Karlgaard Excellence in Computer Science Program.

In the coming years, the Department of Computer Science will be seeking to award upwards of ten new freshman Karlgaard Scholarships each year in addition to the returning student scholarships, hoping to attract into the program the best and brightest students from around the state of Wisconsin.

Jason Wudi Hired as CS System Administrator

Mr. Jason Wudi has joined the Department as the CS System Administrator, a position funded by the Chippewa Valley Initiative. Wudi, as he prefers to be called, received his B.S. in Management Information Systems (MIS) from UW-Eau Claire in 2001. Since that time he has been employed by the Computing and Network Services unit at UW-Eau Claire as an IT Technical Support Specialist, providing the campus with technical support for both hardware and software for over 100 campus workstations. As the Department’s System Administrator, Wudi will oversee our network of over 80 workstations, running both Windows XP and Redhat Linux operating systems. He will be responsible for software and hardware maintenance and upgrades, but more importantly he will play the lead role in training our team of three to four student system admins as they also learn to become IS professionals.

NSF Funds New Computer Security Lab

In May of this year, the National Science Foundation (NSF) announced that the Department of Computer Science would be awarded a $100,000 federal grant for the design and implementation of a new computer lab along with the associated courses and curriculum in computer and information security. The project is titled “CICLS: A Computational Laboratory for Information and Computer Security,” and Dr. Paul Wagner and Dr. Andrew Phillips are the principal investigators for the grant.

In recent years, computer and information security issues have become increasingly significant for business, industry, and government, leading to an immediate need for increased computer security education through undergraduate level computer science curricula. This grant project meets this need through three primary objectives: first, by developing a sophisticated heterogeneous computer and information security laboratory, second, by adapting and developing computer and information security curriculum including new stand-alone courses titled “Computer Security,” and “Cryptography and Network Security”; third, by using this laboratory and curriculum as the foundation for a formal application by UW-Eau Claire to become a Center for Academic Excellence in Information Assurance Education, as certified by the National Security Agency.

The new lab, completed this past summer, is located in Phillips Hall room 168 and contains eight workstation areas each containing two Pentium 4 based systems, one running Windows XP and the other running Redhat Linux. In each area, the two machines share a single 20” flat panel monitor via a keyboard/video/mouse (KVM) switch, thereby allowing students to work on both systems while practicing concepts in computer security on each.

In addition to the two new elective courses in computer security and cryptography, the faculty in the Department are developing a variety of course projects involving concepts in security that can be used in many other courses. These include projects involving scanf buffer overflow exploits, hardware encryption algorithms, database security, and basic steganography.

Mike Wick and Dan Stevenson Promotions Announced

At their June meeting in Madison, WI, the UW System Board of Regents officially approved the promotions of Computer Science faculty members Dr. Michael R. Wick to Professor and of Dan Daniel E. Stevenson to Associate Professor (with tenure).

Mike has been on the faculty at Eau Claire since 1992 after spending three years in the Computer Science Department at Washington State University. In 1995, he was promoted to Associate Professor (with tenure). Mike has taught over twelve different courses from freshman to senior level, always remain- ing the Department’s most popular (and most demanding) instructor! His computing interests involve newly published software development techniques and the integration of those techniques across the computer science curriculum. In recent years, he has focused his efforts on object-oriented design and analysis techniques, design patterns, and Java/C++ implementation techniques. In his letter of support for