

# Department of Computer Science

## Spring 2007 Newsletter

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<http://dce.umn.edu/>

E-mail: [csdept@umn.edu](mailto:csdept@umn.edu)

### PHONATHON DATES:

Feb.  
5,6,7,8,11,12,13,14,15

### ANOTHER MILESTONE . . . .

### COMPUTER SCIENCE DEPARTMENT OFFERS DISTANCE EDUCATION MASTERS DEGREE VIA INTERNET

The COMPUTER SCIENCE (CS) Department is very pleased to announce that its faculty has unanimously approved the offering of a Masters Degree through Distance Education classes, provided via the Internet, effective the 2006 Fall Semester. It is hoped that this initiative has successfully addressed a popular demand of working professionals who need to earn an advanced degree without leaving the workplace. The Department has been offering graduate certificates through Distance Education since 1999. It is only recently, however, that these classes could be taken to obtain a Masters Degree in Computer Science. The Distance Education MS Degree requirements are the same as the requirements for the on-campus program, which can be located at: <http://cs.umn.edu/mscomputerscience.html>

Distance Education courses use streaming Internet video for delivery of lectures and other information. In this setting, students actively participate in classes through viewing the classroom on their computers while being interactively connected with the teacher and class participants by telephone. Lectures are archived so they may be reviewed at any time during the semester. Instructors are available outside of class time for consultation and special assistance by e-mail and telephone. The CS Department currently offers a large number of Distance Education classes, and the number is increasing each year. In the 2006 Fall Semester, eight senior/graduate level Distance Education classes were offered over the Internet. These classes, which comprised 73% of our graduate offerings, originated from the UMR campus, as well as from EEC in St. Louis.

In addition to the Masters program, the Department offers three graduate certificate programs in Software Design & Development, Wireless Networks and Mobile Systems, and Multimedia and Information Systems. Information about these programs and the new Masters Degree can be found at <http://cs.umn.edu/dce.html>. These programs give students the opportunity to increase their knowledge in specific areas of interest and to learn about pertinent research and the latest developments and skills in strategic areas of computing. Courses are presented by UMR faculty members who are experts in these fields. The only requirement for students entering a Graduate Certificate Program is that they satisfy prerequisites for any course they take in the Program. Complete course descriptions are provided online at: <http://campus.umn.edu/registrar/cataloginfo/>. A student who completes a graduate certificate program in Computer Science with grades of B or better will be admitted into the Masters Degree program in Computer Science at UMR.

Additional information about UMR distance classes can be obtained by visiting the following websites: <http://vcc.umn.edu/> and <http://dce.umn.edu/>



## CHAIR'S MESSAGE

Welcome to the Spring 2007 Edition of the UMR Computer Science Department Newsletter. I hope that you had a wonderful holiday season!

This year, again, we have witnessed many exciting new developments in the Department. In this newsletter, you will read about the approval of our new Distance Education Masters Degree, renewal of our ABET accreditation, ongoing research projects in the Department, Computer Science Academy and Advisory Board meetings, and much more.

### News Briefs from the Department

- The faculty approved the offering of a Masters Degree via Distance Education, starting in the 2006 Fall Semester. You may read the details of this offering on the cover page of this newsletter.
- The search for an Endowed Chair Professor is underway at full speed. As you may recall, this position is funded through generous contributions from alumni, friends, and faculty. We thank you again for your continuous support of the Department in so many ways.
- The Department's ABET accreditation has been renewed until 2010.
- UMR received Information Assurance Courseware Evaluation Program (IACEP) Certification from CNSS.
- Research productivity, in terms of publications and funded research continues to grow in the Department. This year, several faculty received research funding from National Science Foundation (NSF), Sandia Labs, Toshiba Co., Missouri Department of Transportation, and University of Missouri Research Board.

### Awards and Honors

The Computer Science faculty continues to receive recognition for their outstanding teaching, research, and service. We congratulate Sanjay Madria for his promotion to Associate Professor with tenure; Jennifer Leopold for receiving a Faculty Excellence Award from UMR last year, and Ralph Wilkerson for receiving an Outstanding Teacher Award from UMR this fall. This year again, Jennifer Leopold, Clayton Price, and Ralph Wilkerson were awarded the College of Arts and Sciences Excellence in Teaching Awards. Matt Johnson, one of our instructors and a PhD student, received an Outstanding Student Advising Award from the MSM-UMR Alumni Association. Bruce McMillin was selected to serve as the Program Chair for COMPSAC'07 (one of the IEEE-CS flagship conferences). Sanjay Madria served as the Program Chair for the International Conference on Distributed Computing & Internet Technology (ICDCIT'06). This is quite an honor for both Bruce and Sanjay and great publicity for the Department. Sanjay was also selected as a Fellow Scientist by the Japanese Society for Promotion of Science and will spend 2 months conducting research and giving talks in Japan.

Congratulations to all!

### Alumni and Friends

Three outstanding alumni: James Gantt, Adonica Randall, and Daniel Reed were inducted into the UMR Academy of Computer Science (ACS) during the annual ACS meeting in late April 2006. Robert Feldmann, one of our Academy members, was awarded a Professional Degree from UMR during December 2006 commencement ceremonies. We would like to extend our congratulations to these distinguished alumni! CS Advisory Board held its annual meeting on April 20, 2006. (You may read about the details of ACS and CS Advisory Board meetings in this newsletter.) We wish to thank all of you, individuals and corporations, for your continued support in a variety of ways, including scholarships and endowments, telling others about CS at UMR, donations to the CS Development Fund, and taking time to call or send a note. As always, we are eager to hear from our alumni. Please take a moment to complete the Alumni Survey at: [http://campus.umn.edu/irininfo/computer\\_science\\_survey\\_2004.htm](http://campus.umn.edu/irininfo/computer_science_survey_2004.htm). If you are an employer of our graduates, we would be pleased if you could fill out the Alumni Survey at: [http://campus.umn.edu/irininfo/Perseus\\_Surveys/2004/CS\\_2004\\_Employer\\_Survey.htm](http://campus.umn.edu/irininfo/Perseus_Surveys/2004/CS_2004_Employer_Survey.htm)

## Three Distinguished Alumni Inducted into UMR Academy of Computer Science

The UMR Academy of Computer Science (ACS) held its annual banquet and meeting on the UMR campus in April 19-20, 2006. Each year, the Academy honors several outstanding alumni for their contributions to the Computer Science profession and for their active involvement with UMR's CS Department. This year, three outstanding UMR alumni, James Gantt, Adonica Randall, and Daniel Reed, were inducted into the academy:



**Dr. James Gantt** has been the Director of the Center for Telecommunications Systems Management (CTSM), Murray State University, since February 2005. He was born in Murray, Kentucky, attended Murray State University, and received a Bachelor of Science with honors (Cum Laude) in 1971. In 1972, he received an M.S. Degree from UMR in Computer Science, majoring in Operations Research. After graduation, he entered the U.S. Army and served as an instructor at the Army Computer Science School at Fort Harrison, Indiana. A retired Lieutenant Colonel from the U.S. Army Reserves, he spent the 1981-1982 school year at MIT as a Fellow in the Center for Advanced Engineering Studies. From 1983 to 1992, he served as the Chief of the Management Information Systems Division at AIRMICS. He completed his Ph.D in Industrial and Systems Engineering at Georgia Tech in 1989. In 1998, Dr. Gantt was honored with Doctor of Laws (Honoris Causa) from Bowie State University. Between May 2000 and December 2004, he served as the Deputy Director and then Director of ARL's Computational and Information Sciences

Directorate. He directed a yearly budget of approximately \$175M and managed 350 government employees and 450 on-site contractors. From July 2003 to December 2004, Dr. Gantt also served as the Chief Information Officer of ARL. In 2003, he was honored as a Distinguished Alumnus of Murray State University.



**Adonica Randall** is currently the President/CEO of Connection Strategies Enterprises, Inc. an IT Services and Staffing Company. She has over 30 years of technical and business experience. She specializes in business process improvement and the development of new services and has experience across a variety of industries, including healthcare, insurance, manufacturing, and distribution. Adonica has served in technical sales and management positions at GM, GE Medical Systems, IBM, and the AO Smith Engineering Division, as well as starting multiple Professional Services businesses for several Milwaukee companies. Ms. Randall received her Master of Engineering - Biomedical Degree from Marquette University. She earned her B.S. in Computer Science from the University of Missouri – Rolla. Ms. Randall has been and continues to be a guest lecturer at a variety of technical conferences and seminars. Adonica has been an Associate Professor in the Department of Computer Sciences at Alverno College (a private Women's College) for the last 13 years. She is also a certified instructor for the nationally recognized Fast

Track Entrepreneurs Program. Adonica is active in the Wisconsin Leaders Forum (a minority executive leadership organization) and the NAACP – Waukesha Chapter. She has served as a board member of Daystar, PEARLS for Girls of Milwaukee, and Strive Media Institute. She is currently on the executive board of The Business Council and, most recently, on the Milwaukee Area Technical Colleges E-Commerce/Web Administration Advisory Committee.



**Daniel A. Reed** is the Director of the Renaissance Computing Institute (RENCI) in Chapel Hill, NC. RENCI is a joint institute of the University of North Carolina at Chapel Hill, Duke University, and North Carolina State University that fosters multidisciplinary research by leveraging and applying leading edge computing, network, and data information technology resources and capabilities. He also is Chancellor's Eminent Professor and Vice-Chancellor for Information Technology at the University of North Carolina at Chapel Hill. Dan came to North Carolina in 2004 from the University of Illinois at Urbana-Champaign, where he led the National Center for Supercomputing Applications (NCSA) and the CS Department at UIUC.

Dan is a member of the U.S. President's Council of Advisors on Science and Technology (PCAST) and the current Chair of the Board of Directors of the Computing Research Association (CRA). He served on President Bush's Information Technology Advisory Committee, where he chaired the Computational Science Subcommittee. Dan serves on the Biomedical Informatics Expert Panel for the NIH's National Center and chairs the policy board for the National Energy Research Scientific Computing Center, the Department of Energy's high performance computing center for scientific research. While Director of NCSA, he led the National Computational Science Alliance, a nationwide partnership to advance scientific discovery via high performance computing, and was principal investigator and chief architect for the NSF's TeraGrid project.

An Arkansas native, Dan received a B.S. in computer science from UMR in 1978. He went on to earn an M.S. and Ph.D. in Computer Science from Purdue University.

## Computer Science Advisory Board met in April 2006

A large number of members attended The annual CS Advisory Board meeting on April 28, 2005, following the CS Awards banquet the night before. During the banquet, many scholarships and a number of door prizes were awarded to students. Thanks to our Advisory Board members and other alumni and corporations for sponsoring tables and providing scholarships and door prizes for this event.

This year, the Board had a full agenda and the discussion topics included: (i) Endowed Chair and the CS Department Chair search, (ii) how to increase enrollment in CS, especially women and minorities, (iii) marketing the new Distance Education Masters degree and Graduate Certificate Programs, and (iv) other interdisciplinary degree programs (Masters in Bioinformatics and Professional Science Masters). During lively discussions among the members, several excellent suggestions were made for improving the CS curriculum and increasing enrollment. We appreciate the time and dedication of the Board members in contributing to our continuous efforts to improve the CS curriculum and the quality of education in the Department. Their perspectives provide valuable insights to the Department as we develop and revise our academic and research programs. If you are interested in serving on the CS Advisory Board, please send us an e-mail at [csdept@umr.edu](mailto:csdept@umr.edu), along with a short bio.

### Members of the 2005-2006 Board are:

Bob Perrey (MasterCard International),  
Curt Schroeder (Lockheed Martin),  
David Schade (SBC),  
Herb Krasner (Krasner Consulting & ECE at U. of Texas),  
Jeff Herzog (Maryville Technologies),  
Jim Lahm (Accenture),  
Jim Leonard (Boeing),  
John Hock (IBM),  
John M. Brown (Purina),  
Juan Vargas (Microsoft),  
Karen Squires Nordeng (Pearson Educ Measurement),  
Ken Brenneke (Boeing),  
Robert Byrne (Boeing).

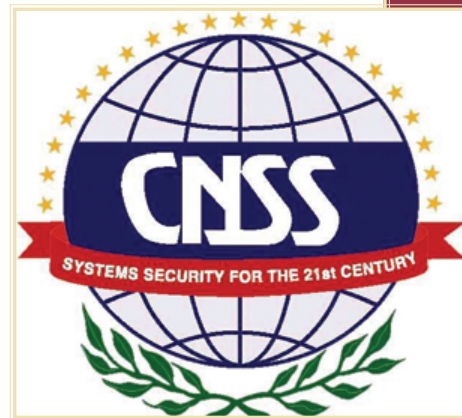
## Daniel St. Clair Endowed Chair Search

The search for the Daniel St. Clair Endowed Chair in Computer Science is proceeding. This is a recently established endowed professorship created under the guidance of the Computer Science Academy in honor of Dan St. Clair. Their contribution is matched by both UMR and the UM system for a total of \$2.2M. We are looking for an individual who must have an outstanding international reputation for excellence in scholarly research and will assume a leadership role in the department to strengthen and expand the department's research and teaching missions. We seek an individual who will attract and inspire superior graduate students, maintain and promote support for a vigorous research program, develop new initiatives, serve as a standard for excellence in scholarly activity and excellence in teaching, be a mentor for current and future faculty, and collaborate with faculty and students both in Computer Science and in other departments and research centers at UMR.



## UMR Certified by the National Security Agency (NSA) Committee on National Security Systems (CNSS)

UMR recently received certification of its Information Assurance courseware as mapping to 100% of the Committee on National Security Systems (CNSS) National Standards 4011 (National Training Standard for Information Systems Security (INFOSEC) Professionals) and 4014E (Information Assurance Training Standard for Information Systems Security Officers (ISSO)). This Information Assurance Courseware Evaluation (IACE) Program implements a process to systematically assess the degree to which the courseware from commercial, government, and academic sources maps to the national standards set by the Committee on National Security Systems (CNSS). This was a joint effort with Computer Science, Computer Engineering, and UMR-IT.



The IACE Program is currently managed by the National Information Assurance Education and Training Program Office within the Information Assurance Directorate at NSA. The goal of the IACE Program is to expand the use of national standards in information assurance education and training throughout the nation. These standards were developed for the government, but have been kept unclassified to share with the greater IA community.

Courses that meet this certification are:

CPE 349 - Trustworthy, Survivable Computer Networks

CPE 419/SYSENG 419 - Network-Centric Systems

CPE 449/SYSENG 449 - Network-Centric Systems Reliability and Security

CS 284 - Introduction to Operating Systems

CS 317 - Intellectual Property for Computer Scientists

CS 319 - Security Operations & Program Management

CS 385 - Computer Communications and Networks

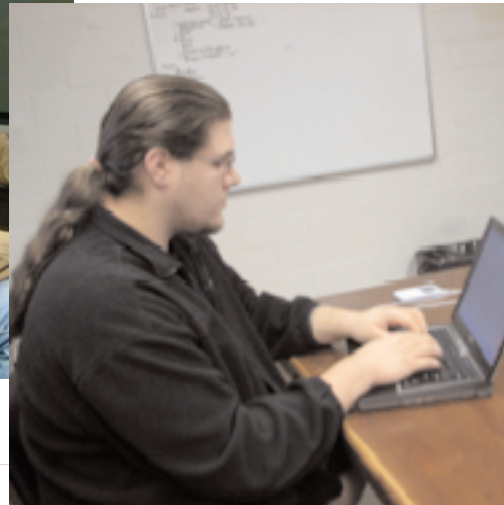
More information on NSA IA Courseware Evaluation Program could be obtained at:  
<http://www.nsa.gov/ia/academia/iace.cfm>

### PHONATHON DATES

**Feb. 5,6,7,8,11,12,13,14,15**

## Bioinformatics Research Lab

Research in the Bioinformatics Research Lab (BRL), co-directed by Dr. Jennifer Leopold in collaboration with Dr. Anne Maglia, Assistant Professor of Biological Sciences, focuses on developing quantitative methods for visualizing and analyzing biological data. Under funding from the National Science Foundation, BRL researchers have developed a web-accessible library of 3D interactive visualizations of anatomy called MorphologyNet ([www.morphologynet.org](http://www.morphologynet.org)), wherein anatomical reconstructions illustrate all tissues and structures, and allow objects to be rotated, dissected, resized, and customized through an easy-to-use web applet. With funding from the University of Missouri Research Board funding, BRL researchers are also working with a team of undergraduate and graduate students to optimize a new data mining application called PRICO that can be used to identify relationships between attributes in phylogenetic data sets, with the objective of refuting or supporting hypotheses of evolution. Computer Science and Computer Engineering students who have recently been funded for these projects include: Alton Coalter, Aaron Fitzgerald, Sarah Garofalo, Charles Huber, Chris Johnson, and Leong Lee.



## Web and Wireless Computing Lab

In the W2C lab we have reason to celebrate. Biswajit Panja had his dissertation defense at the end of September and pass with flying colors. He will be the first PhD student to graduate from the W2C lab since its induction 6 years ago. Biswajit's dissertation work is "Energy efficient management protocols to secure sensor network." Overall we are busy continuing our work here in the W2C lab. Dr. Madria received his tenure and is spending the Fall 2006 semester in Japan as a visiting researcher. Dr. Madria was selected as a visiting scientist by the Japan Society for the Promotion of Science (JSPS). The organization is the Japanese equivalent of the National Science Foundation. He will remain in Japan through the end of November.



## Experimental Computation Laboratory

The Experimental Computation Laboratory has continued its work with the Electrical and Computer Engineering in using Computer Science for the advanced electric power grid. This is a type of Cyber-Physical-System (CPS). The National Science Foundation has recently established (CPS) as a discipline that must involve engineering domains such as automotive, petrochemical, aerospace, manufacturing, civil infrastructure, and medical device systems, with an eye to how the fault tolerance, security, decentralized control, and social aspects of these systems influence their design. Of specific interest is quantifying acceptable behavior, in terms of functional correctness policies, security policies, and behavioral operational policies, for both the physical and cyber components of these systems, and enforcing these policies during system operation. In this way, the system, itself, provides guarantees of its correct and secure operation in the presence of failures and attacks. Challenges are quantifying the combined system requirements and encoding these requirements into assertions that can be evaluated in a distributed system.

Concrete examples of CPS are our critical infrastructures that are vital to the health of the nation; one such infrastructure, the electric power transmission grid is a critical infrastructure and forms one of the largest complex interconnected networks ever built. Under normal operation, this web of interconnecting transmission lines makes the grid highly robust and reliable. However, during stressed conditions, a failure in one location can quickly propagate across the grid in complex and dramatic ways leading to a cascading failure and wide-spread blackouts, such as the Midwest blackout of 2003 that blacked out much of the northeast. Coordinated power electronics, such as Flexible AC Transmission Systems (FACTS) can help mitigate these failures and protect this critical infrastructure.

To tie these all together, the US Department of Energy's advanced electric power grid vision promises a self-healing, reliable, distributed, "fully automated power delivery network that monitors and controls every customer and node, ensuring a two-way flow of electricity and information between the power plant and the appliance, and all points in between." However, achieving this vision demands a workforce that is literate in distributed energy, cyber coordination, and electric power, as well as having the economic understanding, ethics, and an international perspective to manage these technologies effectively for the benefit of society. Furthermore, university curricula typically "silo" these subjects into disparate areas of study, which is detrimental to effective critical infrastructure research that is cross-cutting by nature.

## Computer Science Annual Boeing Pizza Party

The Computer Science Department and The Boeing Company sponsored the annual "get acquainted" Pizza Party for all computer science majors on Wednesday, September 20, 2006. This was the eighth year for the Pizza Party. The UMR Alumni Boeing reps were Charles Hayes and Matthew Bruns. Door prizes were given by Boeing. Approximately 150 computer science students, faculty and staff attended the party.



## Association for Computing Machinery Special Interest Group: Security

The UMR Association for Computing Machinery (ACM) student branch Special Interest Group: Security (SIG Sec) is a student group interested in computer & network security. It was founded four years ago and is now chaired by Laura Woodard and William Atkins; the faculty advisor is Dr. Daniel Tauritz. SIG Sec meetings are bi-weekly and feature a wide variety of speakers on topics ranging from software vulnerabilities to security projects and research. We also perform our own security projects such as building antennas (antennas to add to wireless cards that are made from soup cans, coffee cans or Pringles cans), wireless auditing (mapping open wireless access points so we can inform the owner), security auditing of student computers, and red team vs. blue team (a competition in a controlled environment where each team defends their server from the attacks/attempted entry of the other team).

### Highlights from last year include:

- Antenna Building Party led by the SIG Sec Officers
- Wireless Security Audit event.
 

Total unique access points:	988
Total unprotected:	414 (44%)
- The Sandia Cyber Defenders Interns presented on SCADA Forensics
- Defcon 13 Presentation given by Jason Trent and Will Atkins
- Law and Computer Security Presented by Randy Canis
- Operation Fortify – Securing Student Computers
- Wifi Ninjitsu – Understanding the Encryption you Breathe Presented by Joshua Maib
- Sony DRM Rootkits and WMF Exploit Presented by Jason Trent and Miles Strombach
- Linksys WRT Router Tricks Presented by Will Atkins
- Security Assurance Presented by Ann Miller
- Digital Forensics Presented by Jason Trent and Laura Woodard
- RFID – Spyware on Steroids? Presented by Robbie Hanson

### Topics this academic year (2006-2007) include:

#### Fall 2006 - completed

- September 19: Karl Lutzen Presented on Security Vulnerabilities of Printers
- October 3: Antenna Building Party
- October 17: Wireless Audit
 

Unique MAC addresses:	1731
Unprotected:	658 (38%)
- October 25: Operation Fortify – Securing Student Computers
- November 14: Intrusion Detection Presented by Justin Miller

#### Spring 2007- scheduled

- Basic Encryption
- Security Tools
- Security Jeopardy
- Wireless Scavenger Hunt



### 2006 – 2007 Officers



(Left to right) Back row: Ravi Doddi (web master), Miles Strombach (web master), Dr. Daniel Tauritz (faculty advisor), Zach Zeman (Special Projects), and Justin Miller (University Relations). Front row: Laura Woodard (co-chair), Bryan Williams (recording secretary), Dena Owens (Publicity), and William Atkins (co-chair). Not pictured: Joshua Maib (acting co-chair).

### Operation Fortify



Fall 2006

### Wireless Security Audit



Fall 2006

## Upsilon Pi Epsilon (UPE)

Upsilon Pi Epsilon is a national honor society founded in 1967 to recognize the scholarship and professionalism in the Computer Sciences. The Missouri Alpha Chapter was chartered in 1973 at the University of Missouri-Rolla. Membership is limited to undergraduate and graduate students who can effectively achieve the original goals of the society: recognition of outstanding talent in the field of computing science, promotion of high scholarship in computing science, establishment and maintenance of high standards in computing science, representation of computing science in interdisciplinary communications, and encouragement of individual contributions to society through computing science.

Every semester, the Missouri Alpha Chapter accepts applications for membership into the chapter. In order to be inducted into the chapter, each pledge must perform service projects related to Computer Science. In previous semesters, UPE pledges have helped the department call incoming freshmen and high-school students who have expressed interest in the Computer Science program at UMR, to answer their questions about the department and the university. Additionally, pledges have helped greet incoming freshmen at department events, such as the Computer Science Department Awards Banquet, and have helped run department events, such as the ACM Programming Contest. Upcoming projects include selling t-shirts for a fundraiser and holding a Computer Science merit badge program for boy scouts.

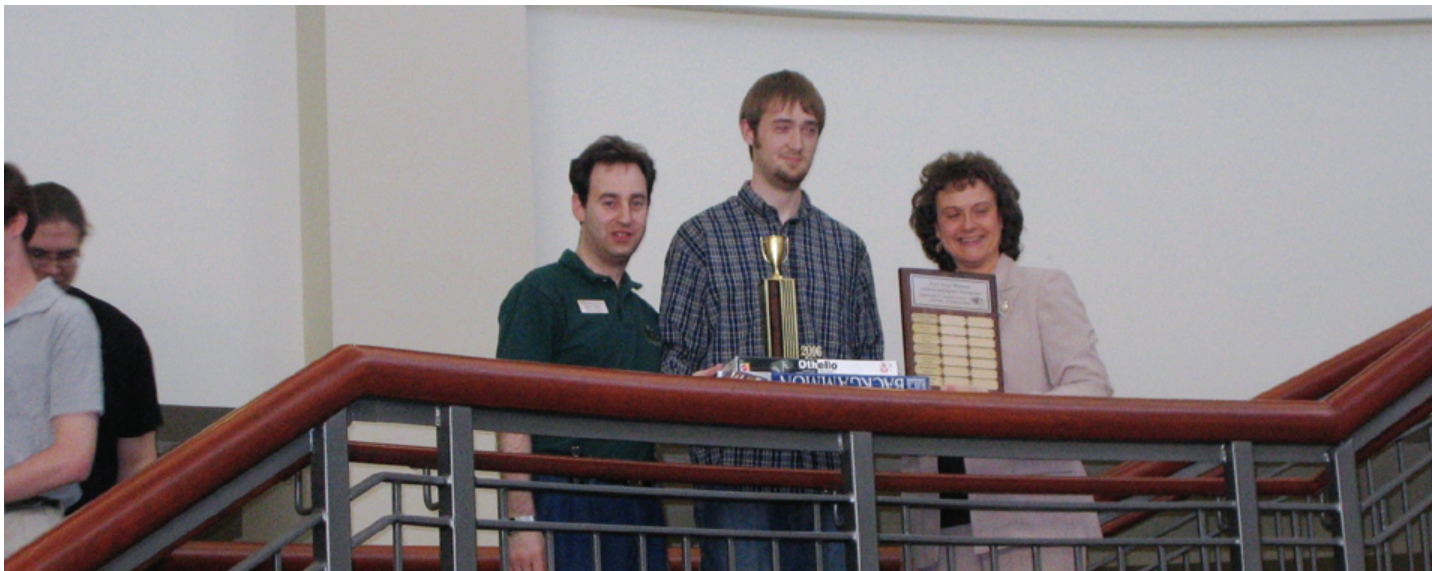
The current officers are Adam Nichols (President), Mark Snyder (Vice President), Jeffrey Leng (Treasurer), Ryan Andrews (Secretary), and Tanner Ochel (Historian). Dr. Ercal, interim chair of the Computer Science Department, is the chapter advisor. For more information about the Missouri Alpha Chapter of Upsilon Pi Epsilon, please visit <http://web.umar.edu/~upe>.

## Association for Computing Machinery Committee on Women in Computing

The ACM-W here at UMR is in full swing this semester. Started in 2005 by Sule Simsek, this year the reins were passed to Julia Albath, Kate Smorodkina, Charissa Mathis and Raymond Myers as the new officers. We started the semester off with a bang by having a general meeting, a peer advising event, which attracted many undergraduate and graduate students who came to get advice on class selection from their peers. For the fall semester 2006 a self-defense seminar is scheduled to teach ACM-W members and the rest of the campus community about personal safety. For the spring 2007 semester, we are planning on a Casino Night to kick off the semester. Additionally, we are planning an internship panel discussion, a graduate information event as well as another peer advising event. Look for more exciting news about ACM-W in the near future.

### PHONATHON DATES

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## Artificial Intelligence Tournament

Winter Semester 2003 gave birth to a new UMR tradition: the Artificial Intelligence Tournament Series, created and organized by Dr. Daniel Tauritz and hosted by UMR's Computer Science Department. This series follows a tradition of in-class tournaments in Computer Science course CS347 – Introduction to Artificial Intelligence, but aims to broaden that scope by inviting campus-wide participation in public tournaments and having formal awards ceremonies. Every semester this tournament gives students, faculty and staff a chance to test their skills in designing & implementing Artificial Intelligence by having their creations compete against each other and with human beings. Each academic year a new challenge, typically a board game, is chosen to be solved during that fall & spring tournament. Three winners are chosen each semester and presented with trophies & prizes at the Graduation Jubilee by Dr. Paula Lutz, the Dean of the College of Arts & Sciences. Each semester the name of the first place winner is engraved on a perpetual plaque and displayed in the glass trophee case on the second floor of the Computer Science Building.

In the spring of 2003 the game was Abalone and the winners were, first place: Christopher Walker, second place: Alex Berry, and third place: Brad Martin. The fall 2003 semester and spring 2004 semester challenged everyone with Stratego. The winners for fall 2003 were, first place: Brian Sea, second place: Matthew Allen, and third place: Rahul Maheshwary. Thanks to Microsoft for sponsoring the prizes this semester.

In spring 2004 the winners were, first place: John Jost, second place: Michael Thielker, and third place: Jason Godding. Thanks to Microsoft and UMR's CS Department for sponsoring the prizes this semester.

The 2004-2005 academic year featured chess, a classic challenge in Artificial Intelligence. The fall 2004 winners were, first place: Travis Service (human player), second place: Travis Service (his computer player!), and third place: David Cape (human player). Thanks to Microsoft for sponsoring the prizes that semester.

The winners in spring 2005 were, first place: Travis Service (again as a human player!), second place: Chad Deshon (computer player), and third place: Jimmy Townsend (human player). New in spring 2005 was the participation by a number of students from Rolla Public High School. Thanks to Network Appliance, Inc. in St. Louis for sponsoring the prizes that semester.

The 2005-2006 academic year challenge was the board game Othello (also known as Reversi). The fall 2005 winners were, first place: Raymond Myers (computer player), second place: Charles Huber (computer player), and third place: Mark Snyder (computer player). Thanks to UMR's CS Department for sponsoring the prizes this semester.

In spring 2006 the winners were, first place: Evan Wright (computer player), second place: Jeremy Dick (computer player), and third place: Charles Huber (computer player). Thanks to UMR's CS Department for sponsoring the prizes this semester.

The fall 2006 challenge is the board game Backgammon, a special challenge because of the stochastic element added through the use of dice. The tournament is scheduled for Sunday 3 December 2006. Additional information can be found at <http://web.umr.edu/~tauritzd/AI-Tournament/>.

NOTE: Dr. Tauritz is always looking for (corporate) sponsors for the Artificial Intelligence Tournament Series (great publicity!). For more information, E-mail him at: [tauritzd@umr.edu](mailto:tauritzd@umr.edu)

## Computer Science 2005 Awards Banquet

Last April the Computer Science Department held its fifth annual Awards Banquet. The Awards Banquet is an event that celebrates the accomplishments of UMR's



undergraduate and graduate students. The banquets follow a simple program: introductions, honored guest speaker, student scholarships and academic achievements, dinner, and finally door prizes and games.

The considerable efforts required to assemble this simple and effective program are completed by the UMR CS ACM and UPEE student organizations, the banquet hosts, Clayton Price and Matt Buechler, and most importantly Rhonda Grayson and Carleen Humphrey who coordinate amongst all involved parties. Despite all of the work and thought that the UMR staff and faculty put into honoring its students, these events would be a failure if it were

not for the generous donations of UMR alumni and corporate sponsors. Through these entities the Computer Science Department is able to provide this entire event cost-free to its students.

The department wishes to give one final special thank-you to the distinguished speakers who have provided the professional and personal motivation at the banquets. These speakers include Herb Krasner (2002), Karen Squires-Nordeng (2003), Jean Holley (2004), John Lovitt (2005), and Juan Vargas (2006). Thanks to our distinguished speakers, corporate sponsors, and student organizations the Computer Science department has proudly been able to make honoring its students into a five year-long tradition, with high hopes for many



more years to come!



The 2007 Sixth Annual Computer Science Awards Banquet is scheduled for April 26, 2007. If you are in the area, we would be honored to have you join us. Additional information will be available on the CS web page. If you and/or your company would like to participate in the 2007 banquet, please contact Rhonda Grayson at [rhondag@umr.edu](mailto:rhondag@umr.edu). Additional information about the banquet can be found by going to [cs.umr.edu](http://cs.umr.edu) and navigating to "Department Activities".



## 2006 Scholarship Recipients

### Accenture

Jason Snoddy  
Alexander Cameron

### John W. Hamblen

Jacob Huhman

### Rex Widmer Software

### Archaeology

Christopher Lincoln

### Howard & Lois Cook

Adam Nichols

### Garmin International

Benjamin Murrell

### Mark X. Stratman

Charles Tullock  
Ben Andelin

### Ellen M. Hodges

Jasmine Bowles  
Natalia Smirnova

### Boeing

Sarah Garofalo  
Lisa Guntly  
Valerie Houseman  
Kristen Loesch  
Laura Woodard  
Jennifer Beman  
Charissa Mathis  
Jessica Williams  
Andre Nwamba  
Roberto Murillo  
Mweemba Chipepo  
Hermon Tekle

### CS Alumni Scholarship

Joshua Wood  
Jeffrey King  
Ryan Miller  
Benjamin Stauffer  
Nathan Alfermann  
Glen Jarvis  
Jeffrey Leng  
Phillip Ponzer  
Jonathon Blount  
Joshua Eads  
Stephen Mues  
Dustin McCurley  
Edward Belanger  
Jamet Guntly  
Kenneth Perry  
Robert Sugrue  
Michael Vanhorn  
Jason Ritter  
Matthew Entrekin  
Nathaniel Young  
Jennifer Beman  
Mark Baumgartner



## 2006 Special Award Recipients

### CS Leadership

Jason Trent

### CS Mentor

Walter Kopecky

### CS Ambassador

Jason Trent

### Outstanding CS

Graduate Assistant  
Brian Sea

### CS Academic

Achievement  
Matthew Chittum  
Cory Crowe  
Patrick Edgett  
Jefferey King  
Kenneth Richardson  
Joshua Eads  
Clayton Harper  
Tommy Szalapski  
Evan Wright  
Nathan Alfermann  
Christopher Eckhard  
Lisa Guntly  
Anusha Ramanathan  
Kumar Abhinay Rathore  
Latesh Suresh Semrani  
Simrit Pal Singh

Jason Trent  
Jayson Peter Vucovich  
Ekaterina Smorodkina  
Yan Sun  
Yadi Ma

## Sponsors for the event included:

Tellabs  
Accenture  
The Boeing Company  
Garmin International  
General Motors  
UMR Bookstore  
El Maguey  
Purina  
Microsoft

## Recruiting Future Computer Scientists



UMR CS Recruitment Software Team -Laura Woodard ( left), Dr. Daniel Tauritz (middle), Kristen Loesch (right)

### The Facts

- According to UCLA's Higher Institution research, interest in computer science among women fell 80 percent between 1998 and 2004, and 93 percent since its peak in 1982.
- At UMR, from fall 2001 to fall 2006 the overall enrollment in computer science has fallen by 18.5% and female enrollment by 35.5%.
- The number of freshmen interested in computer science has dropped more than 60 percent in four years, and the proportion of computer science degrees awarded to women has fallen below 30 percent.
- Study after study show that many women are being turned off of Computer Science because they are more interested in the application of technology rather than the technology itself.

The team of Computer Science (CS) seniors Kristen Loesch, Laura Woodard, and faculty advisor Dr. Daniel Tauritz are working on software to recruit more students, especially women, to the field of CS. They have received funding from UMR's Opportunities for Undergraduate Research Experience (OURE) program and a Collaborative Research Experience for Undergraduates (CREU) grant provided by the Computer Research Association's Committee on the Status of Women in Computing Research (CRA-W), an organization focused on increasing the number of women participating in computer science and engineering research. They are creating 'Edutainment' software to showcase the relevancy of CS to real-world problems. The software consists of a series of highly visual games, interactive questions, and puzzles that illustrate CS careers and socially relevant research. The games & puzzles are associated with the careers of UMR CS alumni whose profiles and inspirational quotes are integrated into the software. In spring 2007 we intend to field-test the first iteration of our software in a mix of 4th through 7th grade classes in local schools.

### How Can You Help?

Our main goal is to dispel the stereotype that CS is boring, only for geeks, and not socially relevant. You can help us achieve this goal by filling out a simple questionnaire about your job, its social relevancy, and providing an optional photo or video clip. The information you provide along with the photo or video clip may be embedded in the recruitment software we are developing. It should only take a few minutes of your busy schedule and we would really appreciate the assistance. To fill out the questionnaire please visit our research website, <http://web.umn.edu/~tauritzd/CREU>, and click on the 'Take the Computer Science Job Survey' link at the bottom of the main page.

To fill out the questionnaire please visit our research website,  
<http://web.umn.edu/~tauritzd/CREU>

## Awards Received by Computer Science Faculty

The recipients of the College of Arts and Sciences Excellence in Teaching Award for 2004-2005 in the Computer Science department are Jennifer Leopold, Assistant Professor of Computer Science, Clayton Price, Instructor of Computer Science, and Ralph Wilkerson, Professor of Computer Science. This award honors those who make special contributions to student retention. A committee of Distinguished Teaching Professors in the College of Arts and Sciences selected the award winners based on student teaching evaluations of faculty members done by the Committee of Effective Teaching at UMR.



### UMR Outstanding Teaching Award for Computer Science

Dr. Ralph Wilkerson, Professor of Computer Science, has won an Outstanding Teaching Award for 2004-2005. The individuals receiving this award are selected by the Committee on Effective Teaching and are recognized at a luncheon given by the Provost.

## CS Graduate Student Receives Outstanding Student Advisor Award

Matt Johnson, a Computer Science PhD student, received the MSM-UMR Alumni Associations Outstanding Student Advisor Award at Homecoming on October 21, 2006.



## Department of Computer Science receives ABET Accreditation

This year the Department's BS program received ABET Computing Accreditation ([www.abet.org](http://www.abet.org)). This is the first year of ABET accreditation, previously the department was accredited by the Computer Science Accreditation Board (CSAB). ABET is the same accrediting agency that accredits the engineering disciplines on campus. The accreditation is based on both the CS curriculum and the process management used within the department for assessment/improvement.

The survey that you periodically receive from us helps us tabulate data to be used in our process improvement and your participation in these surveys provides valuable input. They can be accessed from the departmental web page.

### PHONATHON DATES

**Feb. 5,6,7,8,11,12,13,14,15**

### ACM Team 1

From Left to Right: Evan Wright - CS programming team member  
Miles Strombach – CS programming team member, Dr. Mayur Thakur - ACM advisor & CS Assistant Professor, Dr. Fikret Ercal - CS Interim Department Chair, Raymond Myers - CS programming team member

### ACM Team 2

From Left to Right: Travis Service – CS programming team member, Charles Huber - CS programming team member, Dr. Fikret Ercal - CS Interim Chair, Dr. Mayur Thakur, ACM advisor & CS Assistant Professor, RYANNE DOLAN - CS programming team member

### Lab Renovations

**These are the teams that represented UMR at the regional ACM programming contest held on November 4, 2006 at UMR.**

**New computers & seating are just the beginning of the lab renovations in the CS Department**

### Lab Renovations



## Keeping In Touch

**Randy Canis** continues to teach CS 317 (Computers and the Law) and EE 385 (Patent Law) while working full time as a patent attorney at Greesfelder, Hemker & Gale, P.C. (St. Louis, MO). He currently serves as the president of the Missouri Bar Technology and Computer law committee and authored a chapter on copyright law for the Handbook of Information Security.

**Dr. Maggie Cheng** continues to teach Advanced topics in wireless networks, which she created in Fall 2004. She enjoys teaching this class very much. She is now looking forward to teaching CS355 in the Spring. She is currently busy with two sponsored research projects and supervising several graduate students, plus to set aside time to serve NSF as a panelist and several conferences as a technical program committee member.

**Dr. Jennifer Leopold** continues to teach the Data Structures and Algorithms, Database Systems, and introductory and advanced Bioinformatics courses for the UMR Computer Science Department. She recently received a UMR College of Arts and Sciences Excellence in Teaching Award for the 2005-2006 academic year. Dr. Leopold is the faculty advisor for the UMR ACM-W student group, and is also active in bioinformatics research as the co-director of the UMR Bioinformatics Research Lab.

**Dr. Frank Liu** has received research grants from the Toshiba Corporation for eight consecutive years in the areas of software requirements analysis, software design, software quality management, and software process improvement. The sponsored research project for this year is titled "Transformation & Implementation of Object-oriented Analysis & Design using Non-Object Oriented Programming Languages." He also continues to work on a research project on modeling of FACTS power systems using HOOMT, a structured object-oriented modeling technique developed by us at the UMR. In addition to conducting researches, he teaches software testing and quality assurance, data structures, and advanced software engineering classes.

**Dr. Sanjay Madria** is directing the W2C (Web and Wireless Computing) Lab, and is currently busy with his funded research projects. He is supervising seven PhD and Master students for their thesis and graduated one PhD student this fall. Currently Dr. Madria is spending two months in Japan this fall as part of a research exchange program. He continues to teach courses in the area of web and wireless computing.

**Bruce McMillin** has been active in planning workshops with the National Science Foundation in moving beyond traditional physical infrastructure control methods and establishing Cyber Physical Systems as a national discipline (see Experimental Computation Lab article). He is also the program co-chair for this years IEEE Computers, Software, and Applications conference to be held in Beijing this July. On campus, he is the chair of the St. Clair Endowed Chair search, the chair of the campus tenure committee which is rewriting the tenure guidelines in response to campus reorganization. He is also leading the Center for Academic Excellence in Information Assurance proposal (see the article on the recently received IACEP certification)

At home he still enjoys playing at high-end cooking with his wife, Lorie, who works for UMR in IT.

**Dave Mentis** continues to teach CS 74 (Introduction to Programming in C++) and CS 158 (Discrete Math). He is still involved in the department's computer systems administration. Mr. Mentis and his family live on their farm and are always involved in a variety of projects. They are joyfully awaiting the birth of their first grandchild, a boy, on November 20, 2006.

**Dr. Ann Miller**, Cynthia Tang Missouri Distinguished Professor of Computer Engineering, holds a joint appointment with CS. Dr Miller's Trustworthy Systems Laboratory gives students hands-on experience with high-speed routers, switches, and hubs in order to configure networks and subnets. The stand-alone network also allows students to work in attacker-defender teams. Dr. Miller is also the Assistant Chair for Computer Engineering within the Electrical and Computer Engineering Department.

## Keeping In Touch (con't)

**Clayton Price** never ceases to enjoy his teaching and advising duties for the department. Each new semester seems to bring an even better class of students into the fold. And, every semester continues to bring new and surprising twists. As always, teaching CS 328 and CS 53 is always fun and interesting. The spring semester will be his first for teaching CS 153. That should be a fun challenge. He looks forward to working with Dr. Leopold. Once again, helping with the organization and execution of the annual Awards Banquet in April and being master of ceremonies was an invigorating experience and one he hopes to repeat. Mr. Price is the proud recipient of yet another College of Arts & Sciences Excellence in Teaching Award.

**Dr. Chaman Sabharwal** continues to teach Data Structures II (CS 253) and Java GUI and Visualization (CS 342). In the spring of 2006 he will teach a new course, Modular Software Systems Design and Development (CS 301). He is the Multimedia track Chair of ACM Symposium on Applied Computing 2006. Dr. Sabharwal still commutes back and forth from St. Louis.

**Dr. Daniel Tauritz** is in the process of splitting his advanced graduate course on Evolutionary Computing (CS448) into a two-course sequence (CS301 and CS448) to also give undergraduates the opportunity to learn the fundamentals of Evolutionary Computing and free up time to cover more advanced topics in the second course of the sequence. His new CS301 course will be offered for the first time in spring semester 2007. One project from his fall semester 2005 CS448 course was presented at the IEEE Power Engineering Society 2006 Power System Conference and Exposition (IEEE PES PSCE 2006) held from October 29 – November 1st, 2006, in Atlanta, Georgia. He continues to polish his Artificial Intelligence course and is again sponsoring the Artificial Intelligence Tournament held each semester since spring semester 2003 (see article) and is enjoying his fifth year as the UMR ACM Student Chapter SIG Security advisor (see article). Since December 2004 he has been the UMR coordinator for Sandia National Laboratories' Center for Cyber Defenders (CCD); during summer 2005 he brought a team of outstanding UMR students (three from CS, one from CpE) to the CCD as summer interns, and sent another team in summer 2006. On the research front, Dr. Tauritz continues to lead and expand the Natural Computation Laboratory (NC-LAB) whose main focus is applying natural computation techniques, such as evolutionary algorithms, to Critical Infrastructure Protection; currently there are three Ph.D., four M.S. and two undergraduate students working in the NC-LAB on various infrastructure protection projects, with an emphasis on competitive coevolutionary arms races inspired by neo Darwinian evolution theory.

**Dr. Mayur Thakur** taught four courses last year: Data Structures II and Theory of Computation in the fall of 2005 and Analysis of Algorithms and Automata Theory in the spring of 2006. He is continuing his research in real-world sub-network discovery and vulnerability analysis, reducibilities in complexity theory, and sets of low information content. With UMR researchers, he is studying relationships between nondeterminism and witness functions, studying the vulnerabilities of the domain name system of the Internet, designing formal models for individual investors, using partitioning of graphs to improve the efficiency and/or robustness of the electrical power grid, and developing formal models for distributed control. He married Anuradha Roy during the summer of 2006. Anu and Mayur spent the summer of 2006 in Boston, while Mayur was a visiting assistant professor at Northeastern University.

**Dr. Ralph Wilkerson** continues to work as the Associate Dean of the College of Arts and Sciences for Graduate Studies and Research. He was awarded the College of Arts and Science Excellence in Teaching Award as well as a UMR Outstanding Teaching Award. Dr. Donald Wunsch, Mary K. Finley Missouri Distinguished Professor, director of the Applied Computational Intelligence Laboratory, was elected to the 2005 class of IEEE Fellows. He continues research collaboration with Boeing Phantom Works in Seattle, where his former CS student Paul Pigg works, and with Sandia National Laboratories, where his former CS student Dr. Sam Mulder works. Other research activities include adaptive reconfigurable telecommunications

## Keeping In Touch (con't)

networking, bioinformatics, smart sensors, fuzzy logic, the game of Go, and evolutionary computation. He chairs the Computer Security Task Force, is the UMR representative to the University of Missouri Bioinformatics Consortium, and President of the International Neural Networks Society. He is also an Action Editor of the Elsevier journal Neural Network. He has produced nine PhD's (five from UMR), and two more are scheduled to finish in November 2005. Dr. Wunsch travels frequently, and is sometimes able to bring along his wife Hong, and six year old son, Donnie, who is learning chess and loves travel as much as his dad.

**Carleen "Corky" Humphrey** had been keeping busy with departmental duties, in this her 7th year in the Computer Science Department. In August, Corky was informed by her doctors that her cancer had returned. She has taken a leave of absence during these past few months in order to receive a full round of chemo treatments. At the time of this writing, she is encouraged by positive CT scans showing great improvements. She spends all her free time with her husband, children and all the grandkids: Briar (9), Abigail (2), Lily (1) and Madeline (1). She enjoys every minute she gets to spend with her family and friends, especially her brother.

**Rhonda Grayson** is beginning her 4th year with the Computer Science Department and with it has come some good changes. She has been promoted to senior secretary and is enjoying the challenges that come with her new position. Rhonda's son, Coy (18), will graduate from high school in May and is preparing to leave for college. Rhonda and her husband, William, continue to follow Coy on the rodeo circuit, competing in the sport of bull riding, and are looking forward to watching him compete in college.

## Alumni News

**Sherry Davis** is alive and well and you can contact her at [slk003@mchsi.com](mailto:slk003@mchsi.com). Becky if you see this I do not have your address and miss you.

**James W. Hooper** retired from Marshall University in Huntington West Virginia in 2004 and is now the Weisberg Professor Emeritus. He and his wife, Mona Nading Hooper, live in Birmingham, Georgia to be near their children and grandchildren.

**Joseph W. Stahl** is continuing his writing about the Civil War soldiers and has had articles published in the Washington Times Civil War section, Gettysburg Magazine and the Military Collector and Historian. He is starting his plans for retirement.

**Thomas J. DePaw** is now the marketing manager for Caterpillar Financial Services Division.

**Ryan Joseph Parish** married Melissa Veit, also a Rolla alum, on January 7, 2006.

**Brian David Booth** graduated in December 2005 with an MS in IS&T from UMR. He got married on June 24, 2006 to Carrie Griffin of St. Peters, MO. Brian is the Chapter Advisor of the Epsilon Nu Chapter of Delta Tau Delta at UMR.

## Donations From Alumni and Friends

<b>Less than \$100</b>		Codespoti, Daniel J	1974	Hampel, Richard G	1977
Alexander, Mary C	1971	Compton, Laura Lynne	1990	Haring, James Donald	1989
Altheide, Phyllis	1985	Cooper, Charles J	1971	Harrington, Laura Ellen	1983
Anderson, Glen R	1973	Cothorn, Douglas K	1978	Hayden, Bruce Jeffrey	1983
Asher, Gary Stephen	1986	Court, Michael R	1973	Hedgpeth, Jeffrey Joe	1996
Ashwell, Tracey Dawn	1995	Cox, David Duane	1983	Herman, Bradley S	1981
AuBuchon, F Joseph	1983	Crane, Lynn Anne	1984	Herold, Lawrence W	1974
Austin, Christopher L	1986	Dagestad, Pamela S	1978	Hickman, Lewis Lee	1996
Baron, Timothy J	1979	Daniel, Kathleen M	1979	Hilleary, Alexander L	1976
Becker, Kathryn A	1976	Danz, Steven William	1987	Hilleary, Cynthia S	1976
Beckerle, Kelly Marie	1988	Daum, Marilyn S	1980	Hillhouse, Michael D	1975
Bennett, Carol Ann	1992	Davis, Sherry L	1985	Hooper, James W	1971
Bevans, Judy Kay	1985	Debner, David	1968	Horstmann, Paul W	1973
Biggs, Roger Earl	1987	Derryberry, Darrell W	1985	Hudnut, Mary J	1978
Bilderback, Christopher	2002	Drewes, Laurie Ann	1985	Hughes, Jason Michael	1995
Bischel, Pat Oscar	1987	Dunford, Randall B	1974	Jecker, Gregory H	1973
Bogener, Shawn Robert	1996	Dziedzic, Charla C	1983	Jedlicka, Marla Irene	1987
Bohn, Ellen B	1974	Edwards, Harry K	1964	Jones, John David	1986
Bollinger, Terry B	1977	Ellis, Michael E	1976	Kemp, Russel W	1970
Booth, Brian David	1997	Ellis, Michael G	1985	Kennedy, Kelly Ann	1986
Bowman, Charles S	1986	Erickson, Christina K	1975	King, Janet M	1980
Brady, Amber Megann	1983	Evans, Jesse D	1965	Krasner, Herbert C	1973
Brand, Ann Maxine	1984	Farley, Stanton K	1978	Krishnamurthy, Bharadwaj	2003
Brown, Daniel J	1974	Fox, Richard Keith	1986	Langer, Richard B	1983
Brown, Richard D		Frager, Alan R	1974	Laufman, Anne E	1983
Bruhn, Kurtis Matthew	1987	Galli, Donald H	1974	Lawson, Lessa R	1977
Brune, Charles D	1978	Garrette, James D	198	Lenz, Richard G	1974
Buckley, Jared Roger	1996	Gebhardt, Thomas V	1978	Lewis, Daniel Roy	2003
Burgdorf, Erik D	1980	Gilbert, Alice Fern	1984	Li, Chang	1997
Byrd, Samuel Martin	1998	Goetting, Karla L	1984	Liao, Ruijia	1996
Cameron, Jill Alison	1984	Goetz, Carl Evan	1984	Lietz, Carol Ann	1982
Chen, Dibo	1996	Gravino, Kevin Lee	1982	Lindesmith, Stanley Benson	1990
Christenson, Jayme Lynn	2000	Grotefendt, Judith R	1974	Lindstrom, John A	1973
Clifton, Arlene K	1972	Hagedorn, Gerald Lynn	1996	Ludwig, Karen S	1979
Cochran, Stephen Anthony	1992	Hall, Donald E	1974	Marshall, William K	1984
		Hammond, Patrick Lewis	2005		



Martin, Bennie F	1986	Pritchett, Peggy Ann	1990	Stalnaker, Kevin W	1979
Mausshardt, Charles	1983	Puhl, Lisa Joan	1982	Stamer, Paul Joseph	1997
McBride, Gregory C	1975	Queern, John Kneedler	1981	Steelman, Rhonda L	1984
McCormick, C Craig	1968	Rafferty, Patrick V	1975	Stevener, Rachel C	
McLaughlin, Ellen C	1989	Reinhardt, Mary Jane	1986	Swoboda, Scott Alan	1994
Messmer, Kevin Michael	1988	Reini, Jennifer Ann	1987	Tadda, George P	1989
Meyer, John William	1990	Richards, James L	1972	Taylor, Charles Ray	1973
Mills, Andy Ray	1989	Richesson, Jennifer Jo	1994	Thies, Peggy Ann	1985
Mitchell, Deborah Gay	1984	Robertson, James Douglas	1967	Thomas, Gary W	1978
Mitchell, John W	1983	Robertson, Kevin Dale	1997	Thornsberry, Kevin L	1985
Monsees, Robert L	1970	Robinson, Sally J	1987	Thorsell, Carl W	1969
Moore, Joseph R	1972	Rose, Jeffrey L	1975	Toarmina, Melinda Anne	1987
Mosley, Andrew Thomas	2005	Roth, Michael G	1972	Turley, Matthew Linwood	1992
Mullen, Daniel Francis	1972	Sage, Barry E	1980	Uebele, Cynthia A	1982
Nagawiecki, Gregory Edwin	1984	Sandorf, Kermit		Underwood, Diane E	1981
Newberry, Rosemarie C	1979	Santos, Carmela	1996	Urban, Mark A	1980
Newcomer, John	1989	Schafale, Richard G	1973	VanDeven, John G	1979
Oakes, Jack L	1990	Schaper, Gary E	1993	Veatch, Bobby Ray	1982
Oldroyd, Juanice E	1983	Schath, Michael L	1986	Veden, Leonard S	1973
Olmstead, Shelia M	1985	Schmidt, Daniel Bradley	2003	Vora, Chetan Bharat	1997
Omohundro, Warren C	1975	Schneider, Robert J	1971	Walker, Cynthia Leigh	1988
Ortbals, Robert J	1978	Schneider, Susan	1982	Walker, Rhonda A	1977
Osborne, Carol Jean	1985	Schroeder, Curtis Michael	1988	Ward, Terry L	1975
Owensby, Roger Wayne	1986	Schuessler, Richard B	1972	Wegman, John L	1975
Pace, Gary Glen	1984	Serban, Cristina	1993	Wells, Curtis	1970
Panapakkam, Anitha	1994	Settle, Benjamin A	1983	Winebright, George Michael	1980
Parish, Ryan Joseph	2005	Simon, Kimberly M	1976	Wiseman, Susan Marie	1987
Parrett, Minh T	1979	Simpson, John Lawrence	1997	Withers, Kathleen A	
Paschke, Allen J	1975	Sinn, Elizabeth A	1976	Withers, Laura L	
Paulsmeyer, Brian Matthew	1999	Sinn, Larry F	1975	Wolters, David J	1970
Peery, John W	1967	Sisko, Bruce Peter	1987	Work, Paul R	1990
Peetz, Bryan Dale	1983	Slovinski, Sharon		Workman, J Douglas	1971
Phillips, William Anthony	1993	Smith, Jennifer J		Woytus, John Martin	1987
Pile, Thomas N	1979	Spencer, Kate Elizabeth	2000	Wren, Frances K	1978
Plag, Mark Douglas	1981	St. Clair, Mrs. Daniel C	2000	Yarnall, Charles F	1976
Post, Mark K	1978	Stager, Scott P	1970	Zenor, John J	1963
		Stahl, Joseph W	1969		

## PHONATHON DATES

**Feb.  
5,6,7,8,11,12,13  
,14,15**

<b>More than \$100</b>					
		Drake, Sandra Jo	1993	Kanchiraju, Surya Vijay	2003
Abernathie, Dale Allan	1991	Dupont, Steven J	1974	Keep, Andrew William	1999
Abshier, John C	1983	Dziedzic, Charla C	1983	Kelley, David D	1977
Adams, Steven Richard	1982	Eaton, William A	1970	Kercher, Bruce Edward	1999
Adelsberger, Mark Edward	1999	Estep, Ronald L	1971	Kerns, Randy G	1974
Amparan, Carolyn L	1979	Evans, William David	1984	Kleekamp, Kurt Richard	1987
Anderson, Phillip L	1985	Fieseler, Catherine N	1980	Kleikamp, David John	1986
Androlewicz, Thomas R	1977	Fischer, Thomas W	1976	Klemmer, Susan H	1966
Antal, David D	1975	Fitzgerald, Barton L	1993	Kuebler, Kenneth L	1970
Bailey, Wayne P	1976	Folta, Joseph E	1976	Lindsey, Regulah M	1982
Bardsley, Jeannine M	1983	Ford, Raymond F	1970	Little, Russell D	1982
Batcheler, Joseph Edward	1995	Freiberger, Keith	1984	Loesch, Janet L	1980
Beckmeyer, Margy A	1973	Ganofsky, John R	1978	Loesch, Terry L	1980
Belk, Paul Shannon	1993	Gamtt. James D	1972	Lorenzen, Stanely D	1975
Boecker, Mark S	1974	Gavin, James Douglas	1987	Lyon, James S	1972
Bortfeld, Mark K	1979	Gentry, Timothy W	1977	McAdams, Patricia A	1977
Bowles, Anthony Wayne	1989	George, John Scott	1972	McBride, Sandra R	1970
Brandon, Dwight W	1983	Gieseking, Paul E	1973	McClenning, John C	1991
Brenneke, Kenneth J	1978	Glaenzer, Mark David	1988	McMahon, Thomas Patrick	1995
Brewer, David W	1969	Goertzen, Patrick H	1982	McMillin, Bruce	
Brown, John M	1985	Gordon, John Harrison	1988	McNicholl, Daniel G	1980
Buch, Brent Allen	2000	Graham, David Brian	1983	Meeks, Robert F	1987
Burke, Terence Michael	1995	Graves, Kyle Eugene	1991	Meier, Curtis P	1983
Canis, Randy L	1997	Hall, Allyson Taylor	1997	Menke, Elaine A	1973
Canis, Walter	1972	Hall, Charles Ray	1983	Mersinger, Rozann P	1981
Carson, David J	1975	Hall, John W	1981	Merz, Christopher John	1991
Chrisman, George F	1969	Hayes, Kevin Brian	1988	Mirly, David Michael	1989
Coffman, Mary B	1978	Hilliard, Anthony Wayne	2000	Montague, Michael W	1973
Cook, Aaron L	1977	Hirschbuehler, Daniel C	1980	Muenter, Michael F	1981
Cook, Thomas Edward	1985	Ho, Kuang C	1971	Muldoon, Mary Ellen	1991
Cox, Steven George	1998	Hojnowski, James G	1984	Musial, Christopher	1982
Craven, Paul Vincent	1996	Holley, Thomas K	1975	Nau, Steven N	1970
Crume, James L	1981	Huff, Donald Leroy	1993	Nekorчук, Russell L	1970
DePauw, Thomas J	1973	Humphrey, Carleen		Nichols, Byron K	1973
Denney, Stephen Kent	1994	James, David Loren	1985	Nordeng, Karen Squires	1989
Dillon, Janet Elaine	1982	Jones, James S	1974	Oellig, Galen R	1988
Doerr, Jerry W	1967	Judd, Dennis L	1974	Oligschlaeger, Brian Joseph	1995

Peterson, Richard R	1985	Toombs, Howard L	1976	Proctor & Gamble Co
Phipps, Neil Alan	2001	Washburn, Ralph Lee	1979	Raytheon Company
Piper, Timothy Edward	1996	Wasleski, Steven Francis	1987	Reuters America Inc.
Porter, David Bryan	1988	Watson, Lowell R	1979	SBC Foundation
Potzmann, Kim J	1970	Watson, Susan Elaine	1983	Shell Oil Company Foundation
Pratt, Michael L	1978	Williams, Nelson	1972	Tellabs
Price, Clayton E	1980	Winfield, Scott B	1973	Texas Advanced Information
Price, Paxton		Wylie, James G	1969	Texas Instruments Foundation
Pryor, Gary Alan	1995	Zike, David Scott	1982	Union Pacific Corporation
Randazzo, Vincent A	1989	Zlatic, Milton T	1971	University of Missouri – Academic Affairs
Rehkop, Thomas G	1974			
Rider, Adam Clinton	1993	<b>Corporate:</b>		Washington Mutual
Rothschild, Susan H	1974	AT& T Foundation		Wells Fargo Foundation
Scarponcini, Paul	1988	Accenture		
Scheer, John Albert	1988	Anheuser-Busch Foundation		
Scheidt, Douglas James	2002	Avaya Communication		
Scherer, Keith W	1982	Boeing/McDonnell Douglas		
Scherer, Kenneth Paul	1982	Foundation		
Schmidt, Lonnie D	1969	Caterpillar Foundation		
Shu, Min-Chun Jenny	1982	Computational Systems Engrg		
Sigman, Scott Lee	1999	Computer Associates		
Smith, Brian Lynn	1987	ConocoPhillips		
Smith, Houstin G	1981	DST Systems		
Smith, Johanna Marie	1985	Garmin International, Inc.		
Smith, Neil S	1968	General Motors Corporation		
St. Clair, Clay B		General Motors Foundation		
St. Clair, Mrs. Daniel (Jean)	1975	Harris Foundation		
Stahl, Joseph W	1969	IBM		
Stanek, Craig Steven	2004	Lexmark International, Inc.		
Stark, John Evan	1989	Lockheed Martin Corporation		
Steffan, Cheryl A	1969	Maritz Incorporated		
Stein, Michael S	1986	McKesson Foundation, Inc.		
Stocking, Terry Lee	1989	Microsoft Corporation		
Stone, John Edward	1994	Monsanto Fund		
Sullivan, Kevin Dennis	1995	National Computer Systems		
Szygenda, Ralph James	1970	Nothrop Grumman Foundation		
Taylor, Timothy Topper	1987	PepsiCo Foundation		

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