



## Greetings from the CSE Chairman



Welcome to our annual printed edition of our CSE alumni newsletter. I am happy to share all the good news of our CSE department with you. If you want to continue receiving our news throughout the year, please register your contact information on our alumni website and you will receive three email newsletters during the coming year with all of our CSE news.

The University of North Texas has been designated as an emerging research university by the Texas Higher Education Coordinating Board. The Department of Computer Science and Engineering is leading the way toward this goal as part of the newly formed College of Engineering. With alumni participation and support, I know we can help UNT reach its goal of being a research university.

Please show your support for CSE and UNT.  
 Krishna M. Kavi, Chair

## CSE Sponsors RoboCamp 2006

RoboCamp will be held at Research Park July 10-14 and at the UNT Dallas Campus July 24-28, 2006. RoboCamp introduces young women in the 9<sup>th</sup> through 11<sup>th</sup> grades to robotics and computer science and engineering. This day camp will include seminars and hands-on robotic experiences for 20 young women in both locations.



RoboCamp is the result of a 2005 grant from the Texas Higher Education Coordinating Board through its Technology Workforce Development program. This is the second year of a two-year grant. More details and registration forms are available at <http://www.cse.unt.edu/robocamp2006>.

## Google Awards Grant to Rada Mihalcea

In September 2005, **Rada Mihalcea**, CSE Assistant Professor, received \$107,112 from Google Inc. to support her research in natural language processing through her research project, "Finding Important Information in Unstructured Text: Algorithms for Keyphrase and Sentence Extraction." Mihalcea is working on automatic methods for extracting important information from books stored in electronic format.



For more information about this grant, read this UNT press release at <http://web2.unt.edu/news/story.cfm?story=9420>. For more details on Rada Mihalcea's Language and Information Technologies research group, visit <http://lit.csci.unt.edu>.

## CSE Faculty Receive Texas Advanced Research Program Awards

The Department of Computer Science and Engineering received two out of only nine grants that were awarded in Computer Science across the entire state of Texas by the Texas Advanced Research Program Awards (<http://www.arpatp.com/>). These two grants represented \$199,800 out of \$794,063 that was available through this program.

**Dr. Yan Huang** received funding to support her work in geo-sensor network databases. The project will investigate a spatial autocorrelation aware, energy efficient, and error bounded framework for interpolating maps from geo-sensor fields. Sensor networks are expected to form a digital nervous system embedded in physical spaces and extend human beings' "tactile" sensations to every corner of the world. Her work will provide people the flexibility and ease to fuse, query, and make sense out of the geo-sensor network data. This is critical to future large scale deployments of sensor networks.

**Dr. Rada Mihalcea** is the PI and **Dr. Paul Tarau** is Co-PI for a research project to investigate efficient graph-based representations of text, and explore the application of ranking models based on such graph structures to natural language processing tasks. The novelty of the proposed research project consists of bringing together methods from computational linguistics and graph-theory, and combining them into a suite of innovative approaches that will improve and ultimately solve difficult problems in natural language processing.

## Dr. Dantu Awarded NSF Grant

**Ram Dantu**, Assistant Professor, is the Principal Investigator of a \$600,000 multi-university grant from the National Science Foundation. UNT is the lead institution in collaboration with Columbia University, Purdue University, and the University of California at Davis to develop a geographically distributed, secure test bed to analyze vulnerabilities in Voice over Internet Protocol (VoIP).



The three-year project will investigate voice spam prevention, attacks on networks and Internet resources that render them unavailable, quality of service, and 911 service dependability. They have conducted two VoIP security workshops that have received support from several agencies, including the Department of Homeland Security, the Federal Communications Commission, and the National Security Agency. A third workshop is planned in June 2006 in West Berlin, Germany. More information about this grant is available from this NSF press release: [http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=106828](http://www.nsf.gov/news/news_summ.jsp?cntn_id=106828).

## Students Recognized at UNT Honors Day



Congratulations to these CSE students recognized for their accomplishments on Honors Day, April 21, 2006: (L-R)

- Outstanding Undergraduate Student in CS — Jack Lindamood
- Outstanding Undergraduate Student in CE — Mitra Mahdavian
- Outstanding Ph.D. Student in CS — Brian Harrington
- Outstanding Master's Student in CE — Cheryl-Annette Kincaid
- Outstanding Master's Student in CS — Courtney Corley

**Jack Lindamood** will graduate with a B.S. in Computer Science this May. He has been very active with the ACM programming team, which tied for second place at the most recent ACM regionals, placed first two years in a row at the SMU Metroplex Programming Contest, and qualified as the only U.S. team to attend the finals for the programming contest held in Budapest, Hungary.

**Mitra Mahdavian** is a junior in Computer Engineering, with a minor in Math. She plans to graduate in Spring 2007. She has been an officer of the IEEE Computer Society and the UNT Amnesty International Chapter. She is also a recipient of the Multicultural Scholastic Award and a member of the Honors College. In addition, Mitra is an ambassador for the College of Engineering in the CSEagles program.

**Brian Harrington** worked with Dr. Swigger and Dr. Brazile in the Collaborative Systems Lab while completing his B.S. and M.S. degrees in Computer Science. Currently, he is working in the Materials Informatics Lab on an interdisciplinary project helping material scientists manage their data. Brian hopes to graduate in December 2006 or May 2007.

**Cheryl-Annette Kincaid** received her B.S. in Computer Science in 2003 and plans to graduate with an M.S. in Computer Engineering this August. She has worked with groups in the Laboratory for Recreational Computing (LARC), the Computational Epidemiology Research Laboratory (CERL), and the Computer Privacy and Security (CoPS) Lab.

**Courtney Corley** will graduate with his M.S. in Computer Science this May and begin the Computer Science Ph.D. this summer. Courtney is an active researcher in the Computational Epidemiology Research Laboratory (CERL) and frequently collaborates with Rada Mihalcea in natural language processing. As a Teaching Fellow, he has taught Program Development (CSCE 1020) and Computer Science II (CSCE 1040).

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## New CSE Faculty

**Hao Li** joined the CSE department as an Assistant Professor in Fall 2005. He earned his Ph.D. in Computer Science and Engineering from the University of South Florida in 2004. He earned his B.E. and M.S. from Beijing University of Posts and Telecommunications, Beijing China in 1995 and 1999, respectively.



Dr. Li's research interests include VLSI Design and CAD, FPGA Synthesis, and Electronic Design Automation. He has published several research papers in areas of VLSI Design Automation. His paper was nominated for the best paper award at the Asia and South Pacific Design Automation Conference in 2003. He is a member of IEEE and ACM SIGDA.

**Dr. Bill Buckles** will join the UNT CSE faculty as a Professor in Fall 2006. Dr. Buckles received an array of graduate degrees from the University of Alabama in Huntsville in Computer Science and in Operations Research. He received his Ph.D. for work in Industrial Engineering in 1981. He began teaching at the University of Texas at Arlington in 1981, moving to Tulane University in 1987 where he was the Yahoo! Founders Chair in Computer Engineering.



Dr. Buckles has received his department's annual teaching award three times in the past decade plus a university-wide graduate teaching award. He has published almost 200 papers in national and international media plus one book. His research has been supported by NASA, NSF, the State of Louisiana, and the Missile Defense Agency.

Nearly all of the graduate students he has advised have embarked upon academic careers leading often to distinguished service or research. For example, students with whom he has worked have been department chairs at Loyola University, University of Dayton, and Texas Tech. Twice, students with whom he has worked at the graduate level have become Associate Directors of NASA centers.

**Xiaohui Yuan** received his Ph.D. degree in computer science from Tulane University in New Orleans, LA in 2004 and the B.S. degree in Electrical Engineering from Hefei University of Technology in Hefei, China in 1996. Dr. Yuan will join the UNT CSE faculty as an Assistant Professor in Fall 2006.



He is currently a member of the Rehabilitation Medicine Department, Mark O. Hatfield Clinical Research Center at the National Institutes of Health in Bethesda, MD. He has been an active member of the IEEE since 2000 and served as reviewer for journals such as IEEE Transaction of Medical Imaging and Journal of Information Fusion.

His research interests include image processing and visualization, pattern recognition, artificial intelligence, data mining, and bioinformatics. He has published more than 20 papers in international journals and conferences.

## Dr. Parberry Named Microsoft MVP and Travels to China

For the third consecutive year, Dr. Ian Parberry has been named a Microsoft MVP "Most Valuable Professional." Dr. Parberry was saluted by Microsoft for promoting the spirit of community by helping other people realize their potential through technology. The NT Daily recognized Dr. Parberry by publishing this article on March 22, 2006: <http://www.ntdaily.com/vnews/display.v/ART/2006/03/23/44225c3177904>.

Dr. Parberry was flown by Microsoft to Beijing, China, March 20-25, 2006 to give an invited talk on the SAGE (Simple Academic Game Engine—<http://larc.csci.unt.edu/sage/>) project at the Microsoft Research Asia Theme Workshop 2006. Dr. Parberry said, "Total travel time was around 24 hours, including a 12 hour flight from Chicago to Beijing. Saturday was a personal day, on which a group of us hired a tour operator who took us to the Great Wall." Dr. Parberry is pictured here by the Great Wall.



## CSE Faculty and Staff Recognized by UNT

In December 2005, five members of the Computer Science and Engineering department were recognized for their years of service to the University of North Texas. **Dr. Tom Irby** was the first faculty member hired by Dan Scott, founding department chairman of the Department of Computer Sciences. He received a set of crystal bookends marking his 30th anniversary at UNT. Dr. Irby has seen the department grow from a Masters in Computer Science program with fewer than 20 students to a comprehensive program with almost 800 majors. He has seen many changes to the department, including the creation of the Bachelor of Arts in Computer Science, Bachelor of Science in both Computer Science and Engineering, the Masters of Computer Engineering, and the Ph.D. in Computer Science. He serves as the Undergraduate Coordinator and teaches many of the beginning courses for the department. He has taught over 10,000 students during his career.



**Dr. Kathleen Swigger** was recognized for her 25 years of service in the CSE department. In 2003, Dr. Swigger was appointed Associate Dean of Research for the newly formed College of Engineering. She still teaches at least one course each semester in her area of research. This semester she is teaching a graduate class in Computer Human Interfaces.

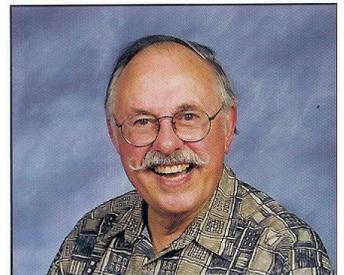
**Dr. Tom Jacob** received a plaque recognizing his 20 years at UNT. Dr. Jacob came to the department in 1985 and served as Chair from 1997 to 2001. He is currently teaching an undergraduate course in Program Development and an Operating System Design course for graduate students.

**Dr. Ian Parberry** joined the department in 1990. He received a trophy in recognition for his 15 years of service at UNT. Dr. Parberry founded the Laboratory of Recreational Computing (LARC) in 1993 as a center for research and education in computer game development. He teaches classes in Algorithms and Game Programming.

**Pam Vincent** is the undergraduate secretary for the department. She received a glass plaque commemorating her 15 years of loyal service to UNT. Pam handles all undergraduate student affairs and coordinates the activities of the front office.

## Focus on Retired CSE Faculty Member: Denis Conrady

Denis Conrady was an Associate Professor from 1974 until he retired from UNT in 1995. At that time, he went on modified service for several years until he and his wife, Catherine, moved back to Indiana, where she was born and he grew up. They moved in 2003 after he won his tenth gold medal singing with the Vocal Majority of Dallas in a contest in Montreal.



In addition to his singing hobby, Dr. Conrady has also enjoyed traveling with his wife during retirement. They visit both of their children often in Paris, France. They have also toured the Mediterranean, Egypt, Scandinavia, Russia, and the Baltic States, where they visited both of their exchange students in Finland. After his sabbatical in New Zealand, he returned twice to visit.

The Conradys have taken several cruises, including one through the Panama Canal and another cruise around South America to Cape Horn. On a cruise up the Yangtze River to Xian, China, he met a former Computer Science Systems Master's student, Qian Depei (M.S. 1984), who, with his wife and son, treated the Conradys like royalty. Depei now works for Beihang University in Beijing.

Now living in Terre Haute, Dr. Conrady still sings with the local barbershop group which will perform at an international contest in Indianapolis this summer. He is also a member of the Kiwanis and the choir at St. Stephens Episcopal Church. He said, "Aside from traveling, we see doctors and take pills. But, life is good."

# Capstone Courses Now Required for CSE Students

Following the advice of the CSE Advisory Council, Software Development, CSCE 4410, became a required course for Computer Science majors in 2005-2006. The emphasis in CSCE 4410 is on the Requirements Definition, Design Specification, and Initial Implementation of a software project. For many years the documents related to the requirements (Software Requirements Document) and the Design Document were developed by each individual student in the class. To increase the student's understanding of team development environments, students are assigned to a team to develop the SRD and Design Documents, while individual students still produce the project implementation. Don Retzlaff has developed CSCE 4410 over several years and his history of this course can be found at: [http://www.cse.unt.edu/~donr/courses/4410/4410\\_History.html](http://www.cse.unt.edu/~donr/courses/4410/4410_History.html)

In Fall 2006, the Computer Engineering senior design sequence will begin. The Computer Engineering courses CSCE 4910 and 4915 will be offered for the first time in the Fall 2006 and Spring 2007 semesters. These are required courses for all Computer Engineering majors and will bring together all of the major topics in the program in a capstone experience. The courses will focus on team development and overall project management skills in addition to the application of detailed technical knowledge to a real-world industry-sponsored design and development problem. Contact David Keathly at [dkeathly@cse.unt.edu](mailto:dkeathly@cse.unt.edu) for more details.

## Register to Receive Email Newsletter

During the past year, the CSE Department has been sending email newsletters to alumni. If you did not receive those email newsletters, it is because we do not have your current email address. To register your information, go to our website <http://www.cse.unt.edu> and click on "people" and then "alumni" to complete the alumni application or update your information. Then you will begin receiving our email newsletter with all the news from the CSE Department.

On that same alumni webpage, you can click on "alumni newsletter" and see the email newsletters published in 2004, 2005, and 2006. These newsletters contain information on our new laboratories, faculty research, alumni news, and student activities. After you have read these, please register your information on our alumni website to receive future issues.

## Join North Texas Exes

Visit <http://www.ntexes.org>  
or call 1-800-866-1153  
for more information.

## Two Alumni Join CSE Advisory Council

The UNT Department of Computer Science and Engineering is pleased to announce two alumni have joined the CSE Advisory Council. James A. Hayes and David S. Rosenblum joined in December 2005. The CSE Advisory Council provides guidance and advice to the department. We are pleased to welcome these two alumni to the council.

**James A. Hayes** received a Bachelor of Science degree in Computer Science from UNT in 1999. While still a student, James began his professional career working for Marconi Communications in Bedford as a Software Engineer in their Engineering IS department. James has since applied his skills with such companies as IBM, Enron, and DuPont.



Presently, he is a Senior Programmer and Business Analyst with The Boeing Company in Richardson and operates his own information technology consulting company. He is currently pursuing his MBA at UNT.

James really enjoyed his undergraduate years at UNT. The best part of the CS program for him was the intense immersion into programming languages, which helped him to become a technology generalist and gave him the ability to complete varied projects, including web applications or embedded processing.

**David Samuel Rosenblum** (B.S. summa cum laude 1982, M.S. 1983) received his Ph.D. in Electrical Engineering from Stanford University in 1988. In January 2004, he moved to the UK to take a position as Professor of Software Systems at University College London (UCL), one of the top universities in the country. He is also Director of London Software systems, a joint research institute of the Software Systems Engineering Group at UCL and the Distributed Software Engineering Group at Imperial College London.



His research interests are in distributed event-based computing and software validation. He currently holds a Wolfson Research Merit Award from the Royal Society of the UK. He has held positions in both industry and academia, including positions at AT&T Bell Laboratories (Murray Hill), the University of California, Irvine, and PreCache, Inc., a Sony-funded startup that developed publish/subscribe networking technology.

In 2002 he received the International Conference on Software Engineering's Most Influential Paper Award for his ICSE 1992 paper on assertion checking in C programs. He is an Associate Editor for the ACM Transactions on Software Engineering and Methodology and has also served on the editorial board of the IEEE Transactions on Software Engineering. He was program co-chair for ICSE 2004 and is currently the Chair of the ICSE Steering Committee. He is a Fellow of the IEEE, a Fellow of the IEE, and a Chartered Fellow of the BCS.

## Alumni Focus

**Lei Shi** received a Master of Science degree in Computer Science in May 2004. While at UNT, he was a member of the Language and Information Technology (LIT) Lab under the supervision of Rada Mihalcea, where he worked on topics related to Natural Language Processing and Artificial Intelligence. Specifically, he worked on developing and implementing a semantic parser, which resulted in a system (SPOT) demonstrated in major conferences, three conference and workshop publications, and his master's thesis.



Currently, he works in the Natural Language Computing group at Microsoft Research Asia, located in Beijing China. He is involved in several research projects concerned with the development of state-of-the-art systems for machine translation, automatic large scale linguistic data acquisition, and information retrieval. He has recently filed a patent, and he has several technical transfers in Microsoft products.

He found the years in the computer science graduate program at UNT to be a rewarding experience. He enjoyed being a member of the LIT lab, and the numerous discussions with Rada Mihalcea and Paul Tarau on various research topics. He thinks that UNT is not only a place where students can learn useful practical skills, but also a choice for students who are interested in a career in original research.

**Phil Fernandez** (B.S. 2004) moved to Denver Colorado following his graduation in Spring 2004. Two months later, he had his first post college job as a web developer, for Moneygram International. This provided a good start to his new life in Denver. However, he always felt like there was a greater challenge out there.



After a trip back home for a family wedding, he was seated on a plane next to the VP of IT of Echostar. Phil says, "During the flight I was reading a book on Chaos Theory. The VP took interest and asked me what I was reading. This broke the ice and a conversation started. After I informed him about the book, he wanted to know more about me. Of course I told him about the great computer science degree I earned at UNT and about my work in software and web development."

The Echostar VP gave him his business card and Phil emailed him his resume. A few weeks later, Phil received a call inviting him to interview with the company. Phil continues, "So here I stand, a little over a year later, doing fun, exciting work for one of the premier companies in the area, Echostar. I guess all of the hard work getting my degree at UNT paid off in the end. Now I get to solve problems and look at snow capped mountains all day. It does not get any better than that. Thanks UNT."

If you want to say "Thanks UNT" or simply share your news with other alumni, please send an email to [newsletter@cse.unt.edu](mailto:newsletter@cse.unt.edu).

## First Class of CSEagles Selected



The CSE department is pleased to announce the first class of CSEagles, who serve as ambassadors for the department and mentors for incoming freshmen. Pictured above are (Back Row, L-R) Brittany Bruno, Cheryl-Annette Kincaid, Srivamsi Tarigopula, Xiaohui Li, Prasanti Kolan. Front Row: Mitra Mahdavian, Maria Ascencio, Lisette Zounon, Kavya Katam. The first group served for the Spring 2006 semester and applications have been received for the Fall 2006-Spring 2007 academic year.

The CSEagles program includes a \$1,000 scholarship and is open to women enrolled in Computer Science and Computer Engineering at the graduate or undergraduate level. This program is funded by a grant from the Texas Higher Education Coordinating Board through its Technology Workforce Development program. More details can be found at <http://www.cse.unt.edu/CSEagles>.

## UNT Team “Well Defined” Places First at SMU Metroplex Programming Competition

The UNT Programming Team “Well Defined” defended their title and again won 1st place at the Southern Methodist University’s Metroplex Programming Competition on Saturday April 8, 2006. The team members are John Rizzo, Jack Lindamood, and Robert Burke.

The contest included teams from Dallas-Fort Worth area schools including Southern Methodist University, University of North Texas, Texas Christian University, University of Texas at Arlington, and University of Texas at Dallas. The first place winners were awarded iPod Nano mp3 players by the contest co-sponsor Apple Computer.

Two other UNT teams, CSEagles and Mean Green, also competed placing 5th and 6th. CSEagles team members are Tyler Cole, Hector Cuellar, and William Garner. Mean Green team members are Richard Lundberg and Ben Cloutier.

## Texas Codeboys Compete in Budapest



The UNT Programming Team of John Rizzo, Jack Lindamood, and Michael Mohler (above L-R), competing as the Texas Codeboys, was the best U.S. team in the Challenge24 online international programming contest and qualified as one of only 30 teams in the world to advance to the final round.

The team placed 14th in the international programming competition which was held April 21-23, 2006 at the Budapest University of Technology and Economics in Hungary. In addition to being the only U.S. team to advance to the final round in Budapest, the UNT team is the first U.S. finalist in the six-year history of the contest.

The Texas Codeboys are coached by David Keathly, CSE lecturer and advisor. For more information, see this UNT press release at <http://web2.unt.edu/news/story.cfm?story=9746>.

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