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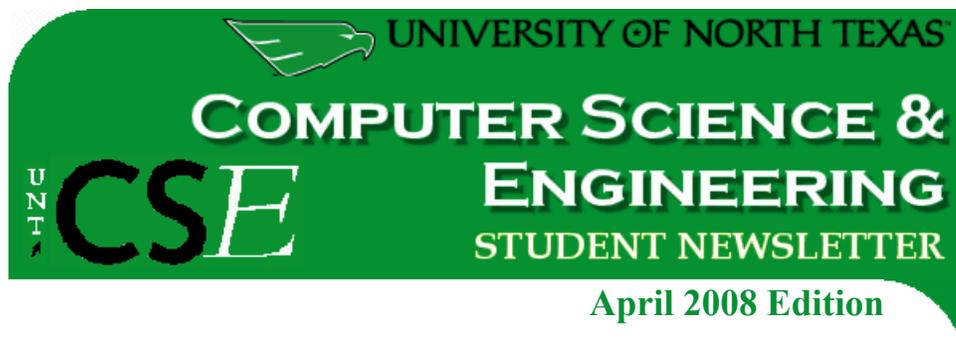
UNIVERSITY OF NORTH TEXAS
COMPUTER SCIENCE & ENGINEERING
UNT CSE STUDENT NEWSLETTER

April 2008 Edition

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Greetings from the CSE Chairman

Dear CSE Students,

Our CSE Department has had a productive Spring semester. We have just received word that Rada Mihalcea received a prestigious award from the National Science Foundation. Farhad Shahrokhi has been named a UNT Honor Professor. Earlier this semester, Robert Akl and David Keathly received awards from the College of Engineering and the Center for Student Development. Congratulations to these faculty members and our Outstanding CSE Students who were selected by our faculty and recognized on

Honors Day on April 11, 2008.

Our CSE programming teams have had great success this year. The Knapsackers@UNT won the IEEExtreme 2008 24-hour Programming Challenge. Earlier this year, they won the ACM South Central Regional Programming Competition and have just finished competing in the ACM World Finals Programming Contest in Canada. The Texas Codeboys are returning to Budapest for the third consecutive year for the Challenge 24 Programming contest.

Our Robocamps have been very successful in securing funding and this year will mark an expansion in that program. In previous years, Robocamp was designed for young women in high school. This year will be the first time young men will be attending these popular summer camps. You can read more about our Robocamps and other news from our CSE department in this newsletter below.

Finally, to our graduating students, I wish you the best of luck in your future. Please keep in touch with us by registering your contact information on the alumni page of our website. In the future, send us an email and let us know what you are doing. After you graduate, I hope you will continue to support our CSE Department and the University of North Texas.

Krishna M. Kavi
Professor and Chair

Department of Computer Science and Engineering News

Rada Mihalcea Receives Prestigious NSF Award

Congratulations to **Rada Mihalcea** for the recently awarded National Science Foundation Early Career Development (CAREER) Award. Rada received her CAREER Award in the Division of Information and Intelligent Systems. The NSF CAREER Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards for new faculty members. The CAREER program recognizes and supports the early career- development activities of those teacher-scholars who are most likely to become academic leaders.

The $500,000 award will support a five-year project entitled "Semantic Interpretation with Monolingual and Cross-lingual Evidence." Although much work to date has focused on statistical approaches that often ignore the explicit understanding of the text, recent research work has begun to challenge this simplification, demonstrating that semantic interpretation is indeed essential for a number of language processing applications. The key observation underlying this project is that word meaning distinctions differ from one lexical resource to another and that the optimality of word meaning representations should be dictated by the target application.

The project is exploring rich and flexible word meaning representations that combine the benefits of multiple monolingual and cross-lingual lexical resources and that can be adapted to the context and to the target application. In particular, the multilingual nature of these representations allows for an effective exploitation of the knowledge and resources available in different languages. The project also explores the role played by these word meaning representations in several natural language processing tasks including lexical substitution, word and text translation, and text-to-text semantic similarity. Another aim of the project is to integrate natural language processing into educational applications, and explore the use of the word meaning interpretation models to build a comprehension-assistant tool for students of English as a second language (ESL) and English as a foreign language (EFL). ↑

Dr. Shahrokhi Named 2008 Honor Professor

Dr. Farhad Shahrokhi received the UNT Honor Professor Award, one of the highest honors given to UNT faculty members by students on Honors Day, April 11, 2008. The nomination letters from students emphasized Dr. Shahrokhi's clarity of exposition and his classroom efforts, as well as mentoring students outside of the classroom, and having them involved in international conferences that he has organized.

Honors Day began in 1950 to recognize students who have excelled in general and specific pursuit of their educational goals, to honor professors, individuals and groups who have made outstanding contributions to UNT and to provide an opportunity for the university community to pay tribute to its deserving members.

Congratulations to Dr. Shahrokhi for receiving this award! ↑

CSE Faculty Members Receive Awards

Robert Akl receives his award
from Dr. Reza Mirshams,
Associate Dean of the College
of Engineering

David Keathly with his
Outstanding Advisor award

During National Engineers Week in February 2008, the UNT College of Engineering and the Center for Student Development hosted a banquet to recognize outstanding students, student organizations, and faculty members at the College. **Dr. Robert Akl**, Assistant Professor in the Department of Computer Science and Engineering, received the UNT College of Engineering Excellence in Undergraduate Teaching Award.

David Keathly, Lecturer and Advisor in the CSE Department, received the UNT College of Engineering Faculty Contribution Award for his outstanding service to the College. Mr. Keathly also received the Outstanding Advisor award from the Center for Student Development. Mr. Keathly was nominated by students and former students in several student organizations that he has advised in the CSE Department.

Dr. Bill Buckles, Professor in the CSE Department and Associate Dean of Research for the College of Engineering, presented the UNT College of Engineering Research Achievement Award to Nandika D'Souza, Associate Professor and Graduate Advisor in the Department of Materials Science and Engineering.

Congratulations to Dr. Akl and Mr. Keathly for your awards! ↑

New CSE Department Website Launched

On the first of March, the Computer Science and Engineering Department unveiled a completely revamped version of the department website at http://www.cse.unt.edu The new website is now maintained with an easily configurable Content Management System, which will simplify updating information on the site as well as adding new information.

The site now features a UNT RSS Feed and a new Media Gallery section that already includes hundreds of photographs related to the department and its activities. The media section is constantly being updated with new content. In the future, there are plans of having department video and audio in the gallery as well as photos. There are also plans to add a webforum for various department classes, and faculty and advising blogs to help keep everyone up to date in these areas.

If you haven't visited the department website in a while, now is a perfect time to see its new, fresh look. Also remember that the department course schedule listing on our website is more accurate than EIS, as we update our site as soon as we know course assignments are made. We hope you enjoy the new site and its new look and feel. ↑
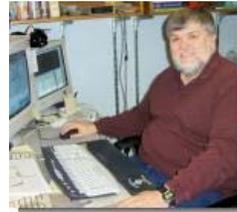
Don Retzlaff,
CSE Webmaster

Robocamps to Expand in Summer 2008

The 2008 session of Robocamp summer day camps received additional financial support in the form of two new grants. The Texas Workforce Commission has awarded an additional $30,000 and the RGK Foundation has awarded $15,000. These are in addition to a $102,000, two-year grant from the Texas Workforce Commission and a $30,000 grant from the Motorola Foundation that allowed Robocamp to expand to both young men and young women entering grades 8 through 12. Previously, it had only been offered to young women.
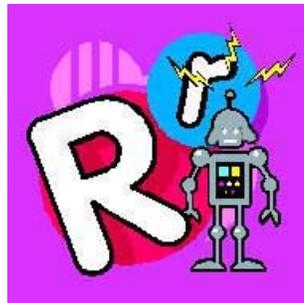
David Keathly, Co-Director of Robocamp, said, "This will be the largest summer camp program to date with about $125,000 to support programs for this summer, and about $50,000 already in hand for next summer," Keathly is Co-Director of

Robocamp with **Robert Akl**, Assistant Professor in the Department of Computer Science and Engineering. Krishna Kavi, Chair of the CSE Department, is also a co-principal investigator on the Texas Workforce Commission grant.

Akl and Keathly have indicated that they will be employing a number of student workers this summer and are now accepting applications for the positions. Contact Keathly at dkeathly@cse.unt.edu for an application form. Robert Akl reports that "we will be hosting a total 12 camps this summer, including two camps for girls, three for boys and a co-ed Robocamp. We are also holding a camp for Counselors and teachers as well as an Advanced Robotics Workshop for returning young women."

For more information about these CSE Robocamps, go to http://www.cse.unt.edu/~dkeathly/robocamp/. ↑

Texas Codeboys Ride Again

The **Texas Codeboys** competed in February 2008 in the first round Qualifier for the Challenge 24 Programming contest. They placed 4th in the initial round and have qualified for the final round in Budapest for the third year in a row. The next closest USA team this year was a team from Johns Hopkins University at 123rd place. The top 30 teams qualify for the final round, chosen from over 170 teams that competed in the qualifying round.

The Texas Codeboys remain the only USA team to ever qualify for the final round of this competition in its 8 year history. This was the return of the original Codeboys, John Rizzo, Michael Mohler and Jack Lindamood. The finals are in Budapest in May 2008.

(L-R) John Rizzo, Jack Lindamood, and Michael Mohler in Budapest in April 2006

Good luck to the Codeboys at the competition! ↑

Knapsackers@UNT Win IEEExtreme 2008 Programming Challenge

The **Knapsackers@UNT** programming team, John Rizzo, Robert Burke, and Michael Mohler, were named winners of the IEEExtreme 2008 24-hour Programming Challenge on March 29, 2008 after two weeks of judging to determine the winners of the March 8-9 competition. IEEExtreme is sponsored by the Institute for Electrical and Electronics Engineers, an international professional society that also sponsors student branches on numerous college campuses. This is the second year for the competition which drew 130 teams from 33

John Rizzo, Robert Burke, and Michael Mohler

countries. The competition included 15 problems to solve, with only 1% of the teams even attempting to solve all 15 in the 24 hour period.

Dr. Ryan Garlick, a team coach from UNT CSE, said "We are very proud that our students are performing so well in these international competitions. It highlights the quality of our students as well as the faculty and curriculum at UNT." David Keathly, lecturer in Computer Science in Engineering and the other coach noted that "most of the members of this team, and the Texas Codeboys who will be competing next month in Budapest, Hungary, have worked very hard and long to achieve the skills needed for these victories. In many cases they are competing against international teams that include working professionals with many years of experience - which makes their victories even more impressive." ↑

Knapsackers@UNT Compete at ACM World Finals

The **Knapsackers@UNT**, Robert Burke, Hector Cuellar and John Rizzo, competed at the ACM World Finals in Banff Springs, Alberta, Canada, April 6-9, after winning first place in the ACM South Central Regional contest last semester. The team received an Honorable Mention for their efforts at the contest, which was won by a team from the St. Petersburg University of IT, Mechanics and Optics. A team from MIT placed second.

One hundred teams traveled to the world finals from around the world, representing the best of the best having won their regional tournaments against anywhere from 20 to 200 teams each. More pictures from the trip can be seen HERE.

Robert Burke, Hector Cuellar, and John Rizzo, in front of a Canadian glacier.

Once again we take our hats off to these students and the faculty in CSE for their continued outstanding performance in national and international competitions. ↑

Phil Sweany Helps Create TNT at UNT

UNT has announced a $2.4 million grant-funded program that will increase the number of undergraduate math, science and computer science majors obtaining teaching certification. Teach North Texas (TNT) is a collaborative effort among the Colleges of Arts and Sciences, Education, and Engineering. The College of Engineering was represented by CSE faculty member, **Dr. Phil Sweany**.

TNT is modeled after the innovative UTeach program at The University of Texas at Austin. This program is an opportunity for students to explore the teaching profession in two free one-hour courses that can be taken as early as their freshman year. Once in the program, students will take courses in the professional development sequence that emphasize field experiences, teaching strategies and concepts related specifically to the subjects the students will teach.

UNT is one of 13 universities nationwide selected to receive a UTeach replication grant by the UTeach Institute and the National Math and Science Initiative. The Greater Texas Foundation contributed $1.4 million to the four-year grant, and an additional amount of up to $1 million will come from NMSI when UNT meets certain fund-raising goals. Sponsors include ExxonMobil and the Texas High School Project. ↑

Dr. Parberry on Program Committee for GDCSE '08

Dr. Ian Parberry was on the Program Committee for GDCSE '08 - the Third Annual Microsoft Academic Days Conference on Game Development in Computer Science Education. The conference was held February 28-March 3, 2008 aboard the Celebrity Century cruise ship departing from and returning to Miami, FL with port calls in Key West and Cozumel, Mexico.

Jointly sponsored by Microsoft Research and Electronic Arts and held in cooperation with ACM SIGCSE, the Game Development conference was a focal point for academic efforts using computer and console games within the Computer Science curriculum. For more pictures of Dr. Parberry's conference cruise, please see http://www.eng.unt.edu/ian/Cruise2008/. ↑

Dr. Parberry and his wife, Virginia, on the cruise.

VLSI Design and CAD Laboratory Presents Three Papers at
Major VLSI Conference

Dr. Saraju Mohanty presented three papers at a top-notch blind reviewed conference in San José, CA during March 2008. Here is more detailed information about the papers:

(L-R) Elias Kouganias, Saraju Mohanty, Dhruva Ghai

- S. P. Mohanty, "ILP based Gate Leakage Optimization using DKCMOS Library during RTL Synthesis".

- D. Ghai, S. P. Mohanty, and E. Kougianos, "A Dual Oxide CMOS Universal Voltage Converter for Power Management in Multi-VDD SoCs".

- D. Ghai, S. P. Mohanty, and E. Kougianos, "Parasitic Aware Process Variation Tolerant Voltage Controlled Oscillator (VCO) Design".

This is a highly competitive forum with acceptance ratio of typically 30%. Dr. Mohanty had a single-author publication, as well as joint-authored with student, Mr. Dhruva Ghai, and collaborator, Dr. Elias Kouganias. Dr. Mohanty acknowledges support from NSF and a supplemental travel grant from UNT. ↑

LIT Group News

(L-R top) Ravi Sinha, Traian Nedelea, Rada Mihalcea, Carmen Banea, Kino Coursey, Tze-I Yang, Miguel Ruiz, Hakan Ceylan, (bottom) Paul Tarau, Samer Hassan, Missing: Andras Csomai, Michael Mohler

The highlight of the Spring semester for the Language and Information Technologies group is a fresh PhD in the group: **(Dr!) Andras Csomai** has successfully defended his dissertation on keyword extraction from very large documents and back-of-the-book indexing on March 28.

There were also several other achievements:

- Carmen Banea, Rada Mihalcea, and Jan Wiebe's work on building subjectivity lexicons for languages with scarce resources has been accepted for publication in the International Conference on Language Resources and Evaluations (LREC 2008), which will take place in Morocco in May 2008. Jan Wiebe is a professor at University of Pittsburgh.

- Michael Mohler and Rada Mihalcea's work on gathering parallel texts for low-density languages was also accepted for publication in the proceedings of LREC 2008. Michael will present his paper in Morocco in May.

- Andras Csomai and Rada Mihalcea's work on using linguistically motivated features for enhanced back-of-the-book indexing has been accepted to appear in the proceedings of the Association for Computational Linguistics (ACL 2008), which will take place in Columbus in June.

- Kino Coursey, Rada Mihalcea, and William Moen's research on automatic keyword extraction for learning object repositories has been accepted for publication in the proceedings of the American Society for Information Science and Technology (ASIS&T 2008). ASIS&T will take place in Columbus in October.

- A journal paper describing a method for random-walk term weighting for text classification, by Samer Hassan, Rada Mihalcea and Carmen Banea, has been recently published in the International Journal on Semantic Computing.

In other news, Rada Mihalcea has recently received the NSF CAREER award, which will support a research project on semantic interpretation with monolingual and cross-lingual evidence. She has also received a research grant from Google to work on extracting and using categorical information for books, which will build upon the LIT's previous work on keyword extraction and summarization for books. ↑

CSE Security Team Competes in CCDC

(L-R) Ebru Celikel, Mitch Clay, Paul Sroufe, Tze-I Yang,
Prudhvi Krishna, Angel Fox, Arthur Williams, Kevin Myung-Hoon Jung,
Blake Eakin, and Chris Gathright

CCDC, which stands for the National Collegiate Cyber Defense Competition, is a defense-based competition that is based on providing and sustaining the security of an enterprise network infrastructure together with a well maintained business information system. The objectives of the competition are to provide students a platform to implement the content they have learned in their courses, provide colleges a means to reevaluate their course contents, encourage teamwork, ethical behavior and good communication skills among students and offer a platform to meeting and cooperation among different higher education institutions.

This year CCDC was hosted by Del Mar College in Corpus Christi, TX from February 29 to March 2, 2008. The CSE Security Team went to the CCDC competition with eight students, one student sponsor and one faculty sponsor. UNT participated in the competition with the following team: Undergraduate students were Kevin Myung-Hoon Jung, Arthur Williams, Blake Eakin, Mitch Clay, Angel Fox and Paul Sroufe; Graduate students were Prudhvi Krishna and Tze-I Yang; student sponsor was Chris Gathright and faculty sponsor was Ebru Celikel.

Texas A&M College Station received first place and the University of New Orleans was the runner-up in the contest.

The eight participant teams competed under a scenario business plan (Valvex) and protected their network systems against attacks organized by Red Team members. The attacks resembled real world scenarios, such as a hurricane that struck Corpus Christi and affected network systems. The UNT team enjoyed being in the competition and learned a lot from this experience.

The CSE Security Team would like to thank Dr. Ram Dantu and Dr. Krishna Kavi for their

support of this event. Dr. Ram Dantu participated in preparations for the competition and provided financial support. The UNT Computer Science Department also contributed to the financial support for the event. ↑

CSE Department Awards Hamilton Scholarship

Jonathan Holman, CSE sophomore, has received the first Ben Hamilton Scholarship awarded by the CSE Department. Ben Hamilton received his B.A. in Computer Science in 2003. He passed away one year ago in April 2007. Ben's parents, Clarence and Patricia Hamilton, have established a scholarship fund to honor the memory of their son, Ben.

The Benjamin T. Hamilton scholarship is available to computer science majors in the Department of Computer Science and Engineering who are enrolled full or part-time. First consideration is given to students who are emotionally, mentally, and/or physically challenged as determined by the UNT Office of Disability Accommodations. If no applicant possesses these characteristics, then any student enrolled in the CSE Department will be eligible for consideration.

Jonathan Holman surrounded by (L-R) Clarence Hamilton, Dr. Krishna Kavi, and Patricia Hamilton.

On February 8, 2008, Mr. and Mrs. Hamilton visited the CSE Department to meet with Jonathan and tour the department. Dr. Kavi, Chair of the CSE Department, was on hand to thank Mr. and Mrs. Hamilton for endowing this scholarship for CSE students. To see more pictures of their visit, please go HERE. ↑

Advisors' Corner

In this advisors' corner, there are four new issues to report. The first is the official launch of the new B.A. in Information Technology beginning Fall 2008. This new degree program has a number of unique features, including up to 27 hours that students can use to design their own specialization and customize the degree, as well as both a Freshman and a Senior two-course design sequence that will incorporate large group development projects supported by industry and community organizations. See the department website or your advisor for more details.

CSE Advisors Ryan Garlick and David Keathly

Second on our agenda is the change in course numbers and names for Fall. The course CSCE 3610 Machine Structures has been replaced with CSCE 3612 Embedded Systems in the curriculum for Computer Engineers.

Many of you may also notice that the 2008-2009 catalog has significant changes in the number of hours for the Computer Science and Computer Engineering degrees, largely due to a change in the state-mandated core courses. If you are a freshman, sophomore or early junior you can elect to "upgrade" to these new degree plans (but you cannot go back after you upgrade - so read them carefully). You will also note that the B.A. in Computer Science is no longer in the catalog. The degree will continue to be awarded to those already designated for the program through May of 2010, however no new students will be accepted into the program. It has been replaced by the new B.A. in Information Technology.

Finally, you should be aware that beginning in the Summer of 2008 pre-requisite courses in CSCE will be strongly enforced by the EIS registration system. You will no longer be able to "cheat" by taking courses concurrently that are listed as pre-requisite or taking courses out of order. The registration system will block you from the course and cannot be overriden by

your instructors or advisors. Please check the pre-requisites carefully before attempting to enroll in a course. You may also note that pre-requisites for some courses may have changed, and more will change in the future-so check carefully.

As always, your advisors are here to help you conquer the trials and tribulations of registering for classes and completing the requirements for your degree. Feel free to call or email us, or make an appointment to meet in our offices. You can make an appointment or talk to us by phone by calling 940-565-2767. Our emails are dkeathly@cse.unt.edu and garlick@cse.unt.edu. Have a great summer and we look forward to seeing you in the Fall semester! ↑

Exit Surveys Help Improve Undergraduate Courses

If you have taken our undergraduate CSE classes, you have been asked to complete our Exit Surveys about our courses. Soon it will be time to complete those Exit Surveys again at the end of this semester. These exit surveys give students an opportunity to evaluate how effective the course has been in helping achieve the desired outcomes for that course. Some instructors have chosen to do the survey online and other surveys will be completed on paper in the classroom.

Each course has outcomes which are measurable skills or activities that students should achieve by the end of the course. The outcomes of all the courses in the curriculum are designed to ensure that, by the time a student graduates, he or she will have mastered the objectives of the degree. The course exit survey allows the faculty to know how students think they are achieving these outcomes and allows students tell the faculty how they think a course could be improved.

One of the requirements of our accreditation by ABET is that we have a program of continuing assessment and improvement. Your part in this is very important. The Undergraduate Studies Committee reviews these exit surveys and makes changes to improve our program. Thank you for completing these surveys and helping to improve our CSE courses. ↑

Student News

Outstanding CSE Students for 2007-2008

Outstanding Undergraduate Student in Computer Science - Hector Guillermo Cuellar Rios

Hector Guillermo Cuellar Rios is a senior with a double major in Math and Computer Science. He came from Nuevo Laredo, Mexico. He is very grateful to his elementary school teacher, Valentin Nio, who provided him with the necessary financial means to allow him to study at UNT.

He has been working with Dr. Yan Huang on the topics of designing and implementation geo-sensor streaming database and spatial data integration since Fall 2006, as teaching assistant in Fall 2007 and research assistant currently. His credentials and research experience helped him to obtain a research internship at the Storage Group of IBM Almaden Research Center in summer 2007.

His work there resulted in a presentation in an internal IBM conference and at the interns' showcase. Hector also presented the results at the ADMI 2008 conference with the title "Scalable Information Lifecycle Management." This summer Hector will return to the IBM Almaden Research Center.

Hector is part of the Knapsackers@UNT programming team that recently represented the

South Central Region of the U.S. at the 2008 ACM-ICPC World Finals in Banff, Canada. In 2007, he received the Verizon undergraduate scholarship. He has been a Math Tutor at the Math Lab since Spring 2005.

When Hector is not busy with programming or school work, he is reading, at church, visiting his family and friends in Mexico, but most likely spending time with his fiancée.

Outstanding Undergraduate Student in Computer Engineering - Paul Sroufe

Paul Sroufe will be receiving his B.S. in Computer Engineering with a minor in Mathematics. He specializes in computer networks where his passion is information security. When not playing games, Paul spends a lot of his free time doing self projects using Unix/Linux. Recently, he went down to Corpus Christi to the Cyber Defense Competition where his team placed 5th. This experience was a definite highlight during college and he recommends it to everyone.

Paul has been working with Dr. Ram Dantu for over a year on various research projects and papers. Paul, along with Dr. Dantu and Henning Schulzrinne, published "Experiences in Building a Multi-University Testbed for Research in Multimedia Communications" at the Next Generation Software workshop at the IEEE International Parallel & Distributed Processing Symposium (IPDPS). Dr. Dantu presented the paper at the conference on April 13, 2008.

Dr. Dantu has been hugely influential and has helped Paul a great deal over the past year. For that, Paul would like to say, "Thanks Dr Dantu!" The paper goes into detail about the research and development experiences of Paul and his lab mates. Some of the areas included in the paper are VoIP bots, quality of service and security mechanisms, social technical issues of video phones, voice spamming, and the video development platform. When Paul first wrote the paper as a report and realized he had much more to say, Dr. Dantu and Paul agreed that they should have it published.

After graduation in May, Paul will be continuing here at UNT doing a M.S. in Computer Science. During this time, he will be working on the Video Development Platform (shown in the picture). He has already worked on this project for the past six months. Over the next few years, Paul plans to develop many new innovative applications on the Video Development Platform with his research team.

Outstanding Master's Student in Computer Science - Husain Husna

Husain Husna comes from the Indian city that never sleeps, Mumbai. He completed the Bachelor of Engineering (B.E) in Computer Science course, from Mumbai University, graduating in May 2006, with Honors [GPA (4.0)]. He got accepted at UNT with a Graduate School scholarship for his excellent performance at Mumbai University. During his stay at UNT, he worked as a Research Assistant with Dr. Ram Dantu in the Network Security Laboratory (NSL).

Husain published research papers in prestigious conferences and journals. Some of his published research papers are, "Eigen-Behavior Of Spammers" (Accepted IEEE COMSWARE 2008), "Traffic Shaping of Spam Botnets" (Accepted: IEEE CCNC 2008), "A Blueprint for Implementing Security in Radiology Network" (Accepted: Network Security Journal 2007), "Quantifying Presence using Calling Patterns" (Accepted IEEE COMSWARE 2008), "Behavioral Entropy of a cellular phone user" (Accepted Social Computing, Behavioral, Modeling and Prediction 2008). He reviewed papers on topics like Closed-Circuit

Unobservable Voice over IP and Mobile Agent for Wireless Network Security.

He was also a Workshop Assistant for the "Workshop on Algorithms, Combinatorics and Geometry", in November 2007, held at UNT. Husain successfully defended his thesis titled "Models to Combat Email Spam Botnets and Unwanted Phone calls" in February 2008 and graduated from the Computer Science Department with a GPA of 4.0. Currently, he is working as an Oracle Configurator Developer with 92 Technologies. Husain loves playing cricket, watching movies and hanging out with buddies.

Outstanding Master's Student in Computer Engineering - Srivamsi Tarigopula

Srivamsi Tarigopula graduated with her Bachelor's degree in Electronics and Telecommunications in India in 2004, worked for GE in technical support for about two years, and came here to UNT for her Master's degree. She was most interested in embedded system design and started her research work in the VLSI design and CAD Laboratory (VDCL). She successfully defended her thesis in December 2007, and will graduate in Spring 2008.

Her stay through UNT was quite eventful. She loves research work, but also enjoys being involved in extracurricular and co-curricular activities. She was chosen as a CSEagles ambassador in the Department of Computer Science and Engineering, She actively participated in the ISA at UNT as the creative coordinator and hosted cultural shows with an audience of over 500 people.

During her work at GE, she was awarded two bronze awards and a superior performance award and was given the best voice of the customers, every week continuously for about 4 months. Her interests are research, craftwork, and Indian classical dance.

Outstanding Ph.D. Student in Computer Science - Prakash Reddy Kolan

Prakash Kolan graduated with a Ph.D. degree in Computer Science in Fall 2007. While he was a graduate student, he worked as a Research Assistant under Dr. Ram Dantu in the Network Security Laboratory. In July 2007, Prakash successfully defended his dissertation titled "Socio-Technical Defense against Voice Spamming". His Ph.D. work resulted in solutions for identifying unwanted calls on a Voice over IP network. His techniques are based on adaptive learning of end user's behavior in making and receiving calls.

In addition to researching unwanted call filtering techniques, Prakash was involved in network risk management and medical security research. One of his eleven published articles, "Risk Management using Behavior based Bayesian Networks," was nominated for the best student paper award at the prestigious IEEE International Conference on Intelligence and Security Informatics (ISI). The journal article he co-authored with Dr. Dantu, Herman Oosterwijk, and Husain Husna, "Securing Medical Networks," was ranked in the top 7 among the top 25 hottest articles by ScienceDirect.

Continuing his IP Communications research at UNT, Prakash Kolan is now employed at Niksun, a Forensics and Compliance company, as a Researcher in the VoIP and Media Solutions group. He is currently involved in the design and development of voice and video applications.

Outstanding Students Recognize Faculty Members at Honors Day

These outstanding students were asked to name faculty members who were a source of inspiration and support during their education at UNT. These CSE faculty members were recognized at Honors Day: **Dr. Ram Dantu, Dr. Yan Huang**, and **Dr. Saraju Mohanty**. Congratulations to these faculty members on receiving this honor. ↑

Andras Csomai Defends his Ph.D. Dissertation

Andras Csomai defended his dissertation, "Keyword in the Mist: Automated Keyword Extraction for Very Large Documents and Back of the Book Indexing," on Friday, March 28, 2008. His major professor was Rada Mihalcea. Also serving on his committee were Paul Tarau from the CSE Department, Marius Pasca from Google Research, and Jiangping Chen from the UNT Library and Information Sciences department.

(L-R) Jianping Chen, Rada Mihalcea, Marius Pasca, Andras Csomai, Paul Tarau

His dissertation addressed the problem of automatic keyphrase extraction from large documents and back of the book indexing. He developed new automated techniques that use a number of sophisticated semantic and syntactic features combined with more traditional information retrieval based features and novel techniques that rely on encyclopedic information to discover the keyphrases in a document. This supervised keyphrase extraction method is capable of creating back of the book indexes closely resembling those created by human experts.

Andras will receive his Ph.D. in May 2008. He has accepted an employment offer from Google, in Mountain View, California. Congratulations and good luck to you, Andras! ↑

## Cai Chen Wins SCAUG Student Competition

Cai Chen, working with Dr. Yan Huang and Dr. Pinliang Dong (Geography), has won the Student Competition of South Central Arc User Group (SCAUG) 2008. As the winner, he earned complimentary airfare to Corpus Christi, one night stay at the five star Omni Hotel and an opportunity to present his work at the SCAUG opening breakfast of SCAUG.

Cai has been working with Dr. Huang and Dr. Dong on modeling herds and their evolvements from trajectory data and developing a wildlife tracking extension for ArcGIS. Congratulations to Cai on this achievement. ↑

Graduating Graduate Students Invited to Exit Meeting on April 30

Dr. Armin Mikler, Graduate Studies Coordinator, invites all graduate students who are graduating this semester to come to an Exit Meeting on Wednesday, April 30 at 12:00 p.m. in the CSE department's main conference room, NTRP F223. To ensure the quality of our program and to determine how it should be changed and improved, we seek information from a number of sources including our recent graduates, our advisory board, area employers, and most importantly, from you, our current students. You have a unique perspective that is crucial to this effort. Dr. Mikler looks forward to meeting with our graduate students who will be leaving us this semester and getting their feedback about their experience in our CSE department. ↑
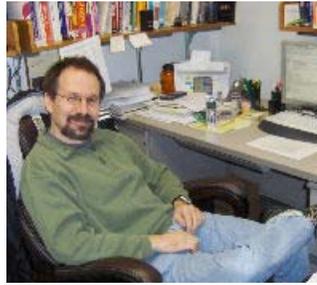
BA and BS Graduates Invited to Schedule an Exit Interview

How did we do? That is the question we are asking our BA and BS graduates. As part of the graduation process, graduating seniors are invited to have an exit interview. Please call the department at 940-565-2767 and make an appointment to meet with an advisor to complete an interview and let us know how you feel about the courses in our curriculum and any suggestions you may have about future courses. You should complete your appointment no later than Thursday, May 1, to be in time for graduation. ↑

College of Engineering News

SWE Recognized as Official Collegiate Section

Carol Bachman (L), Project Engineer for Peterbilt and SWE Professional Advisor, attended the SWE regional conference in March 2008 and brought back these goodies from the Career Fair to our UNT SWE students (L-R) Laura Gonzalez, Sophomore Computer Engineering major, Telissa Townsend, Junior Construction Engineering major, and Colette Thomas, also a Junior Construction Engineering major.

The national **Society of Women Engineers** (SWE) officially recognized UNT's collegiate section earlier this semester. SWE educates young adults about the many professions related

to engineering and the importance of engineers in society. The group at UNT has worked for the past five years to gain recognition as an official SWE collegiate section.

Leticia Anaya, Lecturer in the Department of Engineering Technology, is the faculty advisor to SWE. She said the goal for UNT SWE is to get more students involved with the College of Engineering. Carol Bachman, Project Engineer for Peterbilt, is the UNT SWE professional advisor.

Engineering students, both female and male, in good academic standing can join SWE by applying online at https://www.swe.org/MSC-SWE/apply.aspx. Student membership fees are $20 per year. ↑

Graduating Soon? See the Career Center Advisor

If you are planning to graduate this semester, it would be a good idea to see **Glenn Jensen**, the Career Development Specialist, in the Research Park Career Center office in C211. Students will be seen on a first-come, first-served basis or by appointment. He is available to meet with students on Mondays and Wednesdays from 10 a.m. to 12 noon and on Thursdays from 10 a.m. to 2 p.m.

Glenn Jensen,
Career Development Specialist

The purpose of the Career Center is to ensure that our students are well prepared in marketing their knowledge, skills and abilities, which not only increases their chance of obtaining experiential learning experiences, but also employment and graduate school admission upon graduation. For more information on the Career Center, please go to their website: http://careercenter.unt.edu/.

In addition to individualized advising, the Career Center facilitates several seminars throughout the semester at no charge for students and alumni to attend and the topics are as follows:

- Resume Writing
- Cover Letter Writing Interviewing
- How to Work a Job Fair
- Search Strategies
- Networking Negotiating
- Portfolio Development

Any of these seminars are also available to the CENG faculty in the form of classroom presentations. Most topics can be covered in one hour or less.

The unique partnership with the College of Engineering and the UNT Career Center allows the students and faculty at the College of Engineering's Research Park Campus access to the same quality career services that are available on the UNT Denton Campus.

For more information about the Career Center, please check their website: http://careercenter.unt.edu. If you are interested in scheduling an appointment or having Glenn present a seminar to your student organization or class, please contact the Career Center at 940-565-2105. ↑

The CSE Student Email Newsletter was assembled and produced by Genene Murphy and Don Retzlaff. It is a publication of the UNT Computer Science and Engineering Department. Contact the department at newsletter@cse.unt.edu.

http://www.cse.unt.edu UNT Computer Science and Engineering Department - April 2008