



Greetings from the CSE Chair

During my second year as Chair, we celebrated our 40th anniversary of the UNT Department of Computer Science and Engineering. This newsletter is being mailed to more than 3,500 alumni who have graduated from our programs over the past 40 years. It has been my pleasure to meet CSE alumni on trips around the U.S. and also at alumni events in the North Texas area. In 2012-2013, we had 14 PhD graduates, almost twice the number from last year. Our programs continue to grow with over 1,000 students now enrolled in our CSE Department.



Along with the 40th anniversary celebration, the highlights of 2012-2013 were three new faculty members joining us and having excellent years, the Net-Centric Software and Systems Industry/University Cooperative Research Center winning the Tech Titan of the Future University award, and hosting 6 outstanding computer scientists in our Distinguished Seminar Series. Please read about all of these in later sections of this newsletter. Other major developments in 2012-2013 were the renovation and enlargement of the Computer Systems Research Laboratory, the move of the Computational Epidemiology and Language Information Technology labs to larger rooms, and the establishment of the Software Testing Laboratory. We also resumed activities in our Student Chapter of the ACM and established an ACM-W (Women in Computing) Chapter.

In Fall 2013, Dr. Hassan Takabi will join us and you can read more about him below. Next year we are planning to hire several faculty members to further build and strengthen our department. Also in Fall 2013, we will have 2 new labs to better serve students – a teaching room dedicated to newly created closed labs accompanying CSCE 1040 Computer Science II and a Student Research Collaboration Laboratory where students from different labs can meet and discuss research which spans one or more labs. We will also institute an undergraduate peer tutoring program to improve retention in the undergraduate program and reward our top performing undergraduate students.

If I have not met you yet, please come to visit us at the UNT Discovery Park campus if you are in North Texas.

Barrett Bryant
Professor and Chair

Welcome Dr. Takabi

Dr. Hassan Takabi will join CSE as an Assistant Professor in Fall 2013 from the University of Pittsburgh, where he is completing his PhD in Information Science. Please read more about Dr. Takabi at <http://www.cse.unt.edu/site/node/488>.



CSE celebrates 40 years



(L-R) Kelly Gibson, BS 1989; Nelson Cicchitto, BS 1989, his wife Alisa, and Eric Havens, BS 1993.

Alumni, faculty and staff celebrated the 40th anniversary of the UNT Department of Computer Science and Engineering in October 2012 with a banquet at the new UNT Apogee Stadium. CSE Chair Dr. Barrett Bryant welcomed guests and then introduced Dr. Warren Burggren, UNT Provost and Vice President for Academic Affairs. Dr. Burggren spoke about the importance of the Department of Computer Science and Engineering for the University of North Texas. Following Dr. Burggren's speech, the Dean of the College of Engineering, Dr. Costas Tsatsoulis, added his thoughts on the anniversary.

Dr. Bryant thanked Nelson Cicchitto, BS 1989, whose company Avatier Corp. sponsored this event. Nelson spoke about his experience in the Department of Computer Science and how it helped him to found his own company. He was grateful that his education had laid the foundation for his successful career and that it was important to give back to the department after all he had received through his UNT education. Nelson's gift to the CSE Department helped make this anniversary celebration possible. It was a very special evening enjoyed by all who attended.

Go to the CSE Media Gallery to see all the pictures at <http://www.cse.unt.edu/site/node/439>.

Net-Centric IUCRC wins Tech Titan Award



Dr. Kavi holds the Tech Titans trophy, and standing with him are CENG Dean Dr. Costas Tsatsoulis, CSE Chair Dr. Barrett Bryant, and CSE Professor Dr. Bill Buckles.

Dr. Krishna Kavi's NSF Net-Centric Software and Systems Industry/University Cooperative Research Center won the Tech Titan of the Future University award presented by The Metroplex Technology Business Council in 2012. Congratulations to Dr. Kavi! More information at <http://netcentric.cse.unt.edu/>.

CSE Alumni support The Campaign for UNT



First row seated: Barrett Bryant, CSE Chair and Kathy Foster, Home hostess. Second row standing: Oceana Bryant, Reginald Grant, CENG Development Officer; Costas Tsatsoulis, CENG Dean; Jill Grant, Danico Lee.

In April, President V. Lane Rawlins announced **The Campaign for UNT** which has three main goals:

- Raise money to support the university and its people.
- Engage more alumni and supporters in the life and progress of the university.
- Develop a stronger culture of philanthropy at UNT.

The College of Engineering has raised nearly \$10 million of its \$15 million goal or 65%. The CENG Action Team is led by Chris Pearce, BS 1990, Distinguished Engineer with Cisco Systems, Inc. in Richardson. Other Computer Science alumni in this campaign are Etta Clark, BS 1980, Senior Director at PepsiCo Inc. in Plano; Steve Eaton, BS 1986, Senior Systems Developer, WebSphere Division, IBM in Austin; Maurice Steward, BS 1982, Manager at Deloitte in Houston; Larry Sullivan, BS 1992, Director of Engineering, Developer Division for Microsoft Corp. in Renton, WA; Chris Watts, BS 1983; Attorney in Denton and Denton City Council member; and Michael R. Webb, BS 1997, Chief Technology Officer for SmartVault in Houston.

To support The Campaign for UNT, go to <https://giving.unt.edu/content/giving-unt>.

Alumni sponsor Summer Camp

Three Computer Science alumni are sponsoring a coded Android AppCamp on the Cisco Campus in Richardson July 15-19. Thanks to Bill Benninghoff, BS 1997; Larry Michalewicz, BS 1990; and Chris Pearce, BS 1990; for making this camp possible!



The AppCamp will introduce participants to the skills needed to develop mobile applications for Android phone and Tablet platforms. Scholarships for the camp are provided by the National Convergence Technology Center. For more information about Summer Camps, go to <http://www.cse.unt.edu/robocamp>.

New CSE Faculty in 2012-2013

Renee Bryce joined the CSE faculty as an Associate Professor. Dr. Bryce received her PhD from Arizona State University in 2006. Before coming to UNT, Dr. Bryce was at Utah State University.



Dr. Bryce's research is in software testing. Her primary goal is to develop and examine new software testing techniques that may help testers to more effectively identify software defects. Her research has been funded by the National Science Foundation, the National Institute of Standards and Technology, USDA (Forest Service), and the Computing Research Association (CRA-W) Collaborative Research Experience for Undergraduates (CREU). Find out more about Dr. Bryce at <http://www.cse.unt.edu/~reneebruce/>.

Cornelia Caragea

completed her PhD in Computer Science in 2009 at Iowa State University and earned her BS in Computer Science at the University of Bucharest, Romania, in 1997. She joined UNT as an Assistant Professor; her home department will be Computer Science and Engineering, with a joint appointment in the Department of Library and Information Sciences.



Dr. Caragea's research applies machine learning techniques to text classification in large library databases, sequence analysis in bioinformatics, and emergency response management in disasters, including the development of effective and efficient methods for classification, organization, indexing, and summarization, to facilitate retrieval of content that is tailored to the interests of specific users or groups. Learn more about Dr. Caragea at <http://www.cse.unt.edu/~ccaragea/>.

Rodney Nielsen

joined the CSE Faculty as an Associate Professor. Dr. Nielsen received a dual PhD in Computer Science and Cognitive Science from the University of Colorado, Boulder in 2008. Before coming to UNT, Dr. Nielsen was an Assistant Professor Adjunct in the Computer Science Department at CU, a Research Scientist in CU's Center for Computational Language and Education Research, and a Research Scientist with Boulder Language Technologies.



Dr. Nielsen's research is primarily in the areas of Machine Learning, Computational Semantics, Natural Language Processing, and the application of these fields to Educational Technology, Health Informatics, Companion Robots, and End-User Development. More information about Dr. Nielsen is at <http://www.cse.unt.edu/~nielsen/>.

CSE Research Lab News

The UNT College of Engineering held **Design Day** on April 26, 2013. Senior design teams presented projects with poster presentations and group presentations. To see the projects presented by CSE undergraduate students, go to <http://www.cse.unt.edu/site/node/481>.

NanoSystem Design Laboratory (NSDL)



NSDL members (L-R): Karo Okobiah, Prof. Mohanty, Geng Zheng

A US patent was awarded to Prof. Mohanty titled "Apparatus and Method for Transmitting Secure and/or Copyrighted Digital Video Broadcasting Data over Internet Protocol Network", Number 8423778. Prof. Mohanty published a book titled "Robust SRAM Designs and Analysis" which was highlighted in the UNT research magazine. This book provides a guide to Static Random Access Memory (SRAM) bitcell design and analysis to meet the nano-regime challenges for CMOS devices.

NSDL member Geng Zheng defended his PhD dissertation titled "Layout-Accurate Ultra-Fast System Level Design Exploration Through Verilog-AMS", and received the Outstanding PhD Student in Computer Science and Engineering Award. Geng has received multiple job offers including one from Analog Devices. Another student member Mahesh Gautam defended his MS thesis titled "Exploring Memristor Based Analog Design in Simscape". NSDL PhD candidate Karo Okobiah made multiple presentations at conferences including the International Symposium on Quality Electronic Design held in Santa Clara, CA.

Computer Systems Research Laboratory (CSRL)

Director Dr. Krishna Kavi presented a paper titled "A description language for QoS properties and a framework for service composition using QoS properties", at the 7th International Conference on Software Engineering, held in Lisbon, Portugal, in November 2012. Then in February 2013, Dr. Kavi presented "A multicore memory organization for 3D-DRAM as main memory" by J. Sherman, K. Kavi, B. Potter and M. Ignatowski at the 26th International Conference on the Architecture of Computer Systems (ARCS-2013).

CSRL student Brandon Potter was named the Outstanding Master's Student in Computer Science at the UNT Honors Day in April.

During the Spring semester, CSRL hosted four Computer Engineering graduate students from the University of Pisa in Italy. Giuseppe Regina, Stefano Pianelli, Giandomenico Pisano, and

Domenico Pace were doing research under the supervision of Dr. Kavi.

In Summer 2013, three CSRL graduate students, Mahzabeen Islam, Marko Scrbak, and Charles Shelor will travel to Italy to attend the Ninth International Summer School on Advanced Computer Architecture and Compilation for High-Performance and Embedded Systems (ACACES 2013) in Fiuggi, Italy.

Read more about CSRL at <http://www.csrl.unt.edu/>.

Network Security Lab (NSL)

Two students recently defended their dissertations in May and will graduate in Summer 2013. Neeraj Gupta defended his dissertation "Modeling and Analysis of Next Generation 9-1-1 Emergency Medical Dispatch Protocols." Enkh-Amagalan Baatarjav defended his dissertation "Privacy Management for Online Social Networks."

Chaitra Vijaygopalraj Urs defended her master's thesis "A Vehicle-Collision Learning System using Driving Patterns on the Road" in March. She was named the Outstanding Master's Student in Computer Engineering at the UNT Honors Day in April.

The NSL organized the second **Workshop: Security on the Move and in the Clouds** with security professionals from colleges and industry making presentations. The Department of Computer Science and Engineering hosted this workshop in collaboration with the National Convergence Technology Center, an NSF Regional Center at Collin College.

Dr. Ram Dantu directs the NSL. More information at <http://nsl.cse.unt.edu/>.

Software Engineering Language Laboratory (SELL)



David Adamo and Danielle Gaither at the ICSE banquet, which was on a boat that cruised the San Francisco harbor

SELL students David Adamo and Danielle Gaither served as student volunteers at the International Conference on Software Engineering, held in May in San Francisco. Their volunteer duties included helping out with registration and making sure that presenters had working A/V equipment and enough flip charts and markers. In addition to receiving travel expenses, they received a voucher from Wiley good for 300 British pounds worth of books.

More CSE Research Centers and Labs at <http://www.cse.unt.edu/site/node/37>. Read about CSE in *UNT Research* at <http://www.unt.edu/untresearch/>.

Alumni Focus: Larry Sullivan

I graduated from UNT in 1992 with a BS in Computer Science and minor in Philosophy. I thought I would share a little about my experiences at UNT and a little of what I have done, experienced and learned since I left UNT. I enrolled at UNT in 1986 because UNT's Computer Science program focused on software and I strongly believed I wanted to create software when I graduated. I found I loved the system software, networking, C and assembly language courses. The professors that taught those classes were great at pushing and encouraging those of us that had a desire to learn more to find ways of doing so along with providing opportunities to learn and have fun learning as well. From the courses and these other experiences I knew when I graduated that I wanted to target companies that built Operating Systems and the software that went with them like development tools.



This desire led me to interview with a number of companies and then make the decision to accept a job at Microsoft. I have spent over 20 years with Microsoft, outside of 11 months when I went to do a startup, I have spent my career at this one company. Microsoft did not offer the highest salary, but they did offer me the opportunity to work in an area I was extremely passionate about and the opportunity to continue to learn. How did I know I would have the opportunity to learn? It was from the interview process where I was not asked to regurgitate things I had learned, but rather to take what I had learned and solve different problems that I hadn't seen before and so I came out of the interview with that same feeling of being pushed and encouraged to learn more that I had experienced at UNT. Over my career it is this drive to learn new things that keeps the job fun and exciting along with the ability to work with and learn from great people every day. I have had the opportunity to work on, create and lead software projects that the majority of the world has used from Windows 95, Internet Explorer 2, 3 and 4, the .Net Framework, Visual Studio and now Windows Azure. In each of these projects I was able to learn new things from technology to how to lead and influence organizations of 100's and 1000's of engineers. I have had opportunities to leave, but when you have the chance to solve hard problems, provide solutions that millions of people will interact with every day and make peoples jobs and lives richer and easier it is hard to imagine leaving.

So I am still at Microsoft to this day and now looking at building a cloud platform that can enable developers to solve the technical and business challenges they have along with some of the toughest computing problems of today and I enjoy that ability to reinvent my career, but still live in the same area and work for a company I feel I have helped to build.

Share your news with other alumni! Send an email to: csenewsletter@unt.edu.

CSE Chair and CENG Dean meet with Alumni

In addition to meeting CSE alumni at our 40th anniversary celebration, Dr. Barrett Bryant or Dean Costas Tsatsoulis visited with the following CSE Alumni during 2012-2013:

Kaja Abbas – PhD Computer Science 2006
Carmen Banea – PhD CS & Engineering 2013
Bill Benninghoff – BS Computer Science 1997
David Brackeen – BS Computer Science 1998
Hakan Ceylan – PhD CS & Engineering 2011
Nelson Cicchitto – BS Computer Science 1989
Steve Crozier – BS Computer Science 1980
Stephen Eaton – MS CS Systems 1986
Kathy Foster – MS Computer Science 1979
Wesley Fox – BS Computer Science 1992
Selva Ganesan – MS Computer Science 2005
Kelly Gibson – BS Computer Science 1989
Samer Hassan – PhD CS & Engineering 2011
Eric Havens – BS Computer Science 1993
Jack Lindamood – BS Computer Science 2006
Larry Michalewicz – BS Computer Science 1990
Chris Pearce – BS Computer Science 1990
Vinay Ramachandra – MS Computer Eng. 2010
Susan Richter – MS CS Systems 1981
Mohamed Sakr – MS CS Systems 1988
Maurice Steward – BS Computer Science 1982
Larry Sullivan – BS Computer Science 1992
Greg Thurman – BS Computer Science 1998
Michael Webb – BS Computer Science 1997
Adam White – BS Computer Science 1985

Sign up for the UNT Computer Science Alumni Facebook page at <http://www.facebook.com/group.php?gid=72667678766&ref=mf>



To receive our newsletter by email three times a year, please register at:

<http://www.cse.unt.edu/site/node/71>

To update your information, go to:

<http://www.cse.unt.edu/site/node/70>

To see our alumni newsletter archive, go to:

<http://www.cse.unt.edu/site/node/69>

My life is not just work so I will share that I am married, to a UNT alum as well, and have 2 daughters. I play and coach soccer and hold a USSF National 'B' License for coaching soccer. You cannot live in the Northwest and not love the outdoors in both summer and winter and I snowboard and we get out on the lakes all summer long and we like to travel.

To this day I know that the foundation that UNT provided was instrumental in what I consider a successful career and life and it wasn't just what I learned in the classes, in fact that may be the smallest part, but in the desire to learn and push myself to solve hard problems and have fun all of which were nurtured and encouraged at UNT!

Greg Thurman is Professor for a Day

Greg Thurman, BS 1998, came back to UNT as a "Professor for a Day" in CSCE 4925, Information Technology Capstone, on February 20. Greg's presentation "Soft Skills and Career Development in Information Technology" shared his experiences at UNT and in his career.



Greg is a progressive IT leader currently serving as Director of Business Analysis at Wingstop Restaurants Inc. His professional experience spans 16 years in software development, enterprise systems architecture and business intelligence design.

Thanks to Greg for being a Professor for a Day! Our students enjoyed hearing a CSE graduate talk about his work experiences. If you would like to come back and be a Professor for a Day, contact csealumni@unt.edu.

Etta Clarke awards PepsiCo scholarships



Lisa Reynolds and Etta Clarke

Etta Clarke, BS 1980, Senior Director at PepsiCo, Inc. in Plano, awarded two PepsiCo scholarships to CSE undergraduate students in 2012-2013. In Fall 2012, A CS junior, Lisa Reynolds was awarded the \$1,000 scholarship. Lisa both attended and later was a staff member for RoboCamp. She worked with CSE professors on projects for the Start Alliance. Lisa is working on a research project with her advisor, Dr. Renee Bryce.

In Spring 2013, the PepsiCo scholarship was awarded to Tawfiq Shah. A CS senior, Tawfiq is from Nairobi, Kenya. He is a member of the CSE Cyber Defense Team and also an Engineering Ambassador for the College of Engineering. Tawfiq is also a member of the Center of Student Affairs (CSA) Advisory Board, representing students in the CSE Department. He is the recruitment chair of the Association of Energy Engineers (AEE) and a member of the National Society of Black Engineers (NSBE).

If you or your company would like to award an Undergraduate Scholarship, please contact Sally Pettyjohn at sally.pettyjohn@unt.edu.

CSE Outstanding Students for 2012-2013

Aaron Buchanan is the **Outstanding Undergraduate Student in Computer Science**. Aaron is currently a third-year student working towards a Bachelor's degree in Computer Science with a minor in Mathematics. He is primarily interested in algorithms and internet programming. His current projects include an encrypted journaling program and an interactive application that finds the shortest path between two points in the Discovery Park campus. After his expected graduation date in May 2014, Aaron plans to work as a software developer.



Charles Goodrum is the **Outstanding Undergraduate Student in Computer Engineering**. Charles transferred to UNT in Fall 2009 from Brookhaven College (Dallas County Community College) where he studied music, and received his Associate in Arts degree in the study of Violin Performance. In 2011-2012, Charles' senior design team created a Parking Spot Locator. He graduated from UNT in December 2012 and is an Industrial Engineer at Essilor.



James Glenn is the **Outstanding Undergraduate Student in Information Technology**. James transferred to UNT in 2011. James served in the US Air Force for six years as a linguist. After the military, he worked in the computer industry with Internet based companies in hosting and development services for many years. He graduated from UNT in May 2013 with a BA in Information Technology. In the Fall, James will begin the PhD Program in the CSE Department here at UNT where he will study with Dr. Rodney Nielsen in the area of Natural Language Processing.



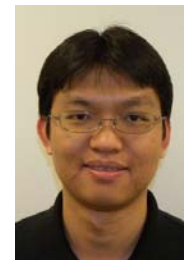
Brandon Potter is the **Outstanding Master's Student in Computer Science**. Brandon received his BS in Computer Science from UNT in December 2011. As an undergraduate, Brandon interned at Oak Ridge National Laboratory for 12 weeks during Summer 2011. In Spring 2012, he began UNT's Graduate Program and received a Research Assistant position in the Computer Systems Research Laboratory. During 2011 and 2012, he published two international conference papers. He plans to defend his Master's thesis titled "A Virtual Memory System for 3-D Stacked DRAM on General Purpose Microprocessors" later this year.



Chaitra Vijaygopalraj Urs is the **Outstanding Master's Student in Computer Engineering**. Chaitra started UNT's Graduate Program in Computer Engineering in the Fall semester of 2010 with Communication and Networks as her specialization. Her interest to learn motivated her to initially start helping fellow students in their projects at the Network Security Lab, later continuing to complete her thesis under Dr. Ram Dantu. Chaitra defended her thesis titled "A Vehicle-Collision Learning System using Driving Patterns on the Road" in March 2013. She will graduate in Summer 2013.



Geng Zheng is the **Outstanding PhD Student in Computer Science and Engineering**. Geng received the BE degree from Beijing Institute of Technology, Beijing, China, in 2005 and the MS degree from Boise State University, Boise, Idaho, in 2008, both in Electrical Engineering. He started pursuing his PhD in Computer Science and Engineering at UNT in 2010. His area of interest is Analog/Mixed-Signal Circuit Design and Optimization. He defended his PhD dissertation titled "Layout-Accurate Ultra-Fast System-Level Design Exploration through Verilog-AMS" in February 2012 and graduated with his PhD in May 2013.



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