

# CSE QUBITS

Computer Science and Engineering Newsletter

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## Greetings from the Chair

Hello! We're well into the fall semester and it's a busy time for the department as we work through university deadlines to keep each semester running smoothly.

We are starting spring registration – please be sure to register early to make sure you get the courses you want! Delaying could mean you miss out on a class you want or a course may even be dropped from the schedule due to low enrollment!



We've sent students to the Richard Tapia Celebrations and the Grace Hopper Celebrations in Computing conferences, which you can read all about in this month's edition. We rely on generous donations to fund these valuable trips for our students; please consider passing our donation information on to your friends and family so we can continue our practice of supporting student opportunity through travel.

We'd also like to encourage our students to take advantage of the unique clubs and student organizations available.

## Connect With Us



## “Git” Informed—Did You Know?

- Doug Engelbart invented the first wooden computer mouse in the year 1964.
- It is believed that the first computer virus released in the world was a boot sector virus. It was created in the year 1986 by the Farooq Alvi brothers.
- In 1990, Tim Berners-Lee develops HTML which made a huge contribution to how we navigate and view the internet today.
- UNT's Computer Science and Engineering is ranked 16th in the nation for enrolling and graduating women!

# Department News

## Richard Tapia Celebration of Diversity in Computing

The Richard Tapia Celebration of Diversity in Computing conference was held in San Diego, California between September 18, 2019 and September 21, 2019, and was a huge success. The conference, designed to promote diversity in computing and connect undergraduate and graduate students, faculty, researchers, and professionals in computing from all backgrounds and ethnicities, is an annual event and UNT is well known for its participation and sponsorship at the event. This year UNT's CSE was a bronze sponsor. We sponsored four students to attend this important event: Farhan Almufleh, Ephraim Jackson, Weston Lopez, and Alejandro Olvera. Also attending was Sampson Akwafuo, Shradha Piparia, and Dhivya Chinnappa, who received scholarships to present their research. Harsha Gwalani was selected for the doctoral consortium and presented her thesis at the conference.



Alejandro Olvera and Dr. Richard Tapia



L to R: Farhan Almufleh, Ephraim Jackson, Dr. Barrett Bryant, Weston Lopez, and Alejandro Olvera



L to R: Dr. Barrett Bryant, Ephraim Jackson, Weston Lopez, and Farhan Almufleh



L to R: Farhan Almufleh, Alejandro Olvera, Harsha Gwalani, Ephraim Jackson, Dr. Barrett Bryant, Shradha Piparia, Dhivya Chinnappa, Sampson Akwafuo, and Weston Lopez.



L to R: Weston Lopez, Dr. Barrett Bryant, Ephraim Jackson, Farhan Almufleh, Alejandro Olvera, Shradha Piparia, and Harsha Gwalani

## Fujitsu Laboratories Visits CAV Lab



L to R: Dr. Qing Yang, Haidi Chen, Sudip Dhakal, Fanjie Ye, Xi Wang, Dominic Carrillo, Tadashi Ikeuchi, Nannan Wang, Paparao Palacharla, Xu Ma, Song Fu, Qi Chen, Jingda Guo, Sihai Tang

Researchers from Fujitsu Laboratories of America Inc., including Tadashi Ikeuchi, Paparao Palacharla, Xi Wang and Nannan Wang, visited the connected and autonomous vehicle lab @ UNT on Sept 17th, 2019. During the visit, Drs. Qing Yang and Song Fu gave Fujitsu's representatives an introduction of the University, the CSE department and the CAV lab. Several

Ph.D students also presented their most recent work to Fujitsu's researchers in a poster session. The main goal of this visit was to explore a long-term collaboration between the CAV lab and Fujitsu Laboratories of America Inc.

## UNT Visits Grace Hopper Celebration of Women in Computing Conference

The Grace Hopper Celebration of Women in Computing Conference was held in Orlando, Florida, between October 1, 2019 and October 4, 2019. The Grace Hopper Celebration is the world's largest gathering of women technologists; this year the attendance reached over 25,000 women! The celebration results in collaborative proposals, networking and mentoring for our attendees. The celebration also offers professional development through a variety of activities. The staff and faculty members traveled with our student representatives to this year's conference to work the UNT booth at the career fair, focusing on bringing visibility to UNT, recruiting grad students, and talking to professionals about upcoming faculty recruiting efforts. With the offer of a waived application fee, we had over 115 people request information on joining our grad program! We also got leads on 20 potential faculty candidates. The Grace Hopper Celebration of Women in Computing was a huge success and we anticipate an even better experience next year! #GHC19



L to R: Melanie Dewey, Binu Gaire, and Diana Bergeman



L to R: Dr. Armin Mikler, Melanie Dewey, and Cady Shelton



L to R: Fariba Irany and Rubenia Flores



**Left, Front to Back:**  
 lida Raina, Gloria Kim, Floreta Krasniqi, Dheepthi Somangili Babulal, Gayatri Sravani Akella, Binu Gaire, Srikala Murugan, Dhivya Chinnappa, Fariba Irany, Dr. Barrett Bryant.

**Right, Front to Back:**  
 Beilei Jiang, Zhaochen Gu, Luci Tran, Cady Shelton, Erika Hepner, Natalie Drewfs, Shuwen Liang, Diana Bergeman, Melanie Dewey, Dr. Armin Mikler



Back L to R: Fariba Irany, Erika Heppner, Shuwen Liang, Bellei Jiang, Dr. Armin Mikler, Natalie Drewfs, Melanie Dewey, Gayatri Sravani Akella, and Leah Okafor.  
Front L to R: Dheepthi Somangili Babulal, Dr. Barrett Bryant, Cady Shelhon, Zhaochen Gu, Binu Gaire, Floreta Krasniqi, Diana Bergeman, Gloria Kim, Luci Tran, Iida Raina

CSE took 19 students from our Undergraduate and Graduate programs and each was challenged to approach other conference participants to discuss UNT with a goal of increasing recognition of our university. With a 'spin it to win it' wheel, we gave out hundreds of pieces of CSE branded swag.

UNT is a BRAID (Building, Recruiting, and Inclusion for Diversity) school and we receive funding to implement their four commitments: 1) Modify introductory CS courses to appeal to students with less prior background in computing, 2) Lead outreach programs for high school teachers and students to build a pipeline of diverse students interested in computing, 3) Build confidence and community among underrepresented students through programming on and off campus, and 4) Develop joint majors and interdisciplinary courses in areas like CS and biology that are attractive to underrepresented students.



L to R: Dr. Armin Mikler, CSE Alumni Dr. Prabha Sundaravadivel, CSE Alumni Dr. Shanti Thiyagaraja, CSE Alumni Dr. Natalie Parde, and Dr. Barrett Bryant



L to R: Fariba Irany, Dheepthi Somangili Babulal, Floreta Krasniqi, Bellei Jiang, Natalie Drewfs, Zhaochen Gu, Leak Okafor, Dr. Armin Mikler, Dr. Barrett Bryant, Cady Shelhon, Gayatri Sravani Akella, Gloria Kim, Rubenia Borge Flores, Srikala Murugan, Iida Raina, Erika Heppner, Luci Tran, Binu Gaire, Diana Bergeman, Melanie Dewey, Shuwen Liang, and Dhivya Chinnappa.

L to R: Dr. Barrett Bryant, Zhaochen Gu, Floreta Krasniqi, Iida Raina, Gayatri Sravani Akella, Dhivya Chinnappa, Srikala Murugan, Melanie Dewey, Gloria Kim, Dr. Armin Mikler, Natalie Drewfs, Fariba Irany, Bellei Jiang, Binu Gaire, Diana Bergeman, Cady Shelhon, Luci Tran, Shuwen Liang, Erika Heppner, Dheepthi Somangili Babulal.



# Student News

## ACM Student Org Elects Officers for 2019-2020

Congratulations to the ACM Club's elected officers.



Md Khorrom Khan  
President



Surya Pasumarthi  
Vice President



Aboubakar Mountapbeme  
Secretary

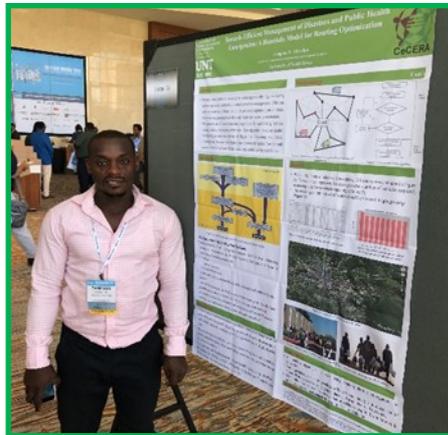


Md Farhad Mokter  
Treasurer

If you're interested in joining ACM, please speak with one of the above members!

## Grad Students Present Research at Richard Tapia Celebrations Conference

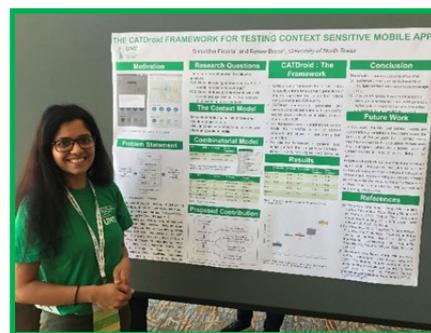
Each year the Tapia Conference provides conference scholarships for students at all levels, and to post-docs in colleges across the United States. The scholarships include registration, meals, hotel stay, and a travel stipend. The submitted applications are reviewed by over 90 professional volunteers in industry and academia. Credit <http://tapiaconference.org/participate/scholarships>. This year, not only was CSE a Bronze Sponsor for the conference, but we had 3 students selected to present their work during poster sessions. Also, Ph.D. candidate Harsha Gwalani was selected for the doctoral consortium.



Sampson Akwafuo presents Towards Efficient Management of Disasters and Public Health Emergencies: A Heuristic Model for Routing Optimization



Dhivya Chinnappa presents Extracting Possessions from Social Media Images



Shradha Piparia presents CATDroid framework for testing context sensitive mobile applications

## The Eye - Current Events

- Be sure to stop by our help lab in F232 - you'll find TA's and peer mentors available to assist on projects, assignments, etc.
- The ACM Club will be held on Oct 22, followed by meetings Nov 5, Nov 9, and Dec 3 at 5:30pm in Discovery Park room B155.
- The next Robotics Club meeting will be Oct 23, at 7pm followed by a meeting on Nov 6 in K150.

# Faculty News

## Dr. Ram Dantu Wins National Competition

Congratulations to CSE's own, Dr. Ram Dantu on his win in the national competition on Enterprise Technology. State Farm selected 20 winners from across the country for their submitted projects. Dr. Dantu's submission about contracts for applications of blockchains and the development of VR/AR modules for leadership, teamwork, and diversity, led to a big win for UNT and to a \$16,000 award!

You can read more about it here: <https://www.facebook.com/781424044/posts/10158673160984045/>



State Farm representatives with Dr. Ram Dantu and Dr. Barrett Bryant

## Associate Dean Selected for ELATES Program



UNT Engineering Associate Dean for Research and Graduate Studies, CSE professor Dr. Yan Huang, has been selected to participate in Drexel University's Executive Leadership in Academic Technology, Engineering and Science (ELATES) program. ELATES is a professional development program specifically geared for women in academic STEM fields.

Dr. Yan Huang

## Eagle Call - Upcoming Events

- Natural Language Processing Graduate Merit Scholarship. For more information, please visit <https://computerscience.engineering.unt.edu/news/natural-language-processing-graduate-merit-scholarship>
- The UNT Robotics group will meet every other week in Discovery Park room K150.
- The CSE Cybersecurity Club meets on Thursdays. Check the bulletin board for more information.

# Puzzle Column

Two cars on adjacent lanes of a road are stopped at a red light. When the light turns green, both cars accelerate at the rate of 5 miles per second per second. Car A accelerates up to 40 miles per hour. Car B accelerates up to 60 miles per hour. The next stop light is a mile away. The light alternates between red and green, staying on each color for 20 seconds. As a car approaches the light, one of two things may happen:

At 0.1 miles away from the stop light, the light is found to be green and the car continues past the light even if it changes to red.

At 0.1 miles away from the stop light, the light is found to be red and the car uniformly decelerates to a complete stop at the light.

For simplicity, any change in the light when the car is less than 0.1 miles away from the stop is ignored.

Is it possible to arrange the timing of the light changes such that the slower moving car (Car A) catches the green light and goes past the faster moving car (Car B)? Offer a short explanation.

NOTE: This situation is quite common. You would have passed a slower moving car, only to catch a red stop light and you stop. Moments later, when the light turns green, you will have to accelerate but the slow moving car does not have to slow down and therefore overtakes you.

Please email [Nagendra.gulur@unt.edu](mailto:Nagendra.gulur@unt.edu) for puzzle ideas and solutions to posted puzzles. Please start the subject line of your email with "PUZZLE:". We will post the names of the first 10 students who provide correct solutions in the next month's newsletter.

## Would You Rather?

The September 2019 winner is:



Don't forget to stop by the bulletin board located in Route 66 and cast your vote for October's Would You Rather: get your groove on to "Thriller" or boogie down to "Monster Mash"?