Greetings from The CSE Chair

I hope the beginning of the fall semester has gone well for you. We have some exciting events coming up, such as the Richard Tapia Celebration of Diversity in Computing Conference that will be held in San Diego, California mid-September. We are sponsoring four students to attend this important event: Farhan Almufleh, Ephraim Jackson, Weston Lopez, and Alejandro Olvera. Also, Sampson Akwafuo, Shraddha Piparia, and Dhivya Chinnappa will be joining them, as they received scholarships to present their research, and Harsha Gwalani was selected for the doctoral consortium and will be presenting her thesis at the conference.

During the first week of October, we will be sending a total group of 22 to the Grace Hopper Celebration of Women in Computing Conference in Orlando, Florida. The Grace Hopper Celebration is the world’s largest gathering of women technologists; this year the anticipated attendance is over 22,000 women!

Both student groups are attending the conference due to, in large part, BRAID funding. UNT is a BRAID (Building, Recruiting, And Inclusion for Diversity) school which gives us a unique opportunity to build networks with companies dedicated to helping underrepresented groups succeed in computer science and engineering.

As we get deeper into the school year, we encourage our students to take advantage of the unique clubs and student organizations available. Every other week there will be a robotics meeting in room K150 at 7pm: be sure to check the schedule in THE EYE.

Also, new to this month’s edition, make sure to see out PUZZLE COLUMN down below and submit your answers to Nagendra.Gulur@unt.edu. And please be sure to LIKE our Facebook Page and check out LinkedIn to keep up with all of the latest news.

Barrett Bryant
DEPARTMENT NEWS

REU Program and Workshop

This summer, Dr. Song Fu and Dr. Qing Yang led the NSF REU Site program on Vehicular Edge Computing and Security. Ten students from universities across the country participated in the 10-week research fellowship to gain first-hand experience alongside faculty mentors and graduate students. The REU students worked in labs and in the field on projects related to autonomous vehicles, edge computing, and secure connected systems. On August 1st, we organized a Workshop on Connected Autonomous Vehicles. Researchers and engineers from automobile industry and transportation government sectors were invited to attend. The REU students presented their research projects and results and received feedback from the industry partners. The workshop was very well received by the attendants. Events like this foster new collaborations and community engagement.

First Flight

We had over 20 volunteers all coming together to show what CSE has to offer. Students were given some awesome CSE swag and then were taken on an informative tour so they could get the lay of the land.

First Flight, designed to help new students begin their college experience on the right foot and to see the department where they will be spending most of their time, generally happens the week before classes begin. This year, our staff and students worked together to prepare swag bags for the hundreds of students who are joining CSE this year.
Please join us in congratulating Nilanjan Sen on successfully defending his doctoral dissertation on “Elliptic Curve Cryptography based Real-time Media Encryption” on August 1, 2019. Pictured left to right are Dr. Hui Zhao, Dr. Mark Thompson, Nilanjan Sen, major professor Dr. Ram Dantu, Dr. Kirill Morozov and joining via Skype, Mr. Manuel Vexler.

Congratulations to ABM Rezbaul Islam on successfully defending his doctoral dissertation on “Skin Detection in Image and Video founded in Clustering and Region Growing” on July 8, 2019. Pictured left to right are Dr. Bill Buckles, ABM Rezbaul Islam, and Dr. Robert Akl. Not pictured: Dr. Kamesh Namuduri and Dr. Armin Mikler.
Computer Science and Engineering is proud for the part we play in making computer science accessible to everyone! Dr. Robin Pottathuparambil, along with Lucy Gafford from UNT WISE, in the College of Health and Public Services, co-organized a summer camp this year geared towards teach STEM to students with disabilities. Check out the segment [HERE](#)

The faculty/staff retreat was held at Main Event. Pictured left to right in the second picture are Dr. Yuan, Dr. Kavi, Dr. Fu, Dr. Guo, Dr. Bhowmick, Dr. Shrestha, Dr. He, Dr. Yang, Dr. Parberry, Mr. Keathly, Dr. Dantu, Dr. Helsing, Dr. Mikler, Dr. Ludi, Dr. Garlick, Dr. Buckles, Dr. Do, Dr. Blanco, Dr. Akl, Alejandro Olvera, Dr. Bryant, Dr. Thompson, and Dr. Tarau.

Following the annual faculty retreat at Main Event, the faculty enjoyed themselves with arcade games and pool! Pictured from left to right in the first picture are Dr. Yuan, Dr. Mikler, Dr. Blanco. Pictured from left to right in the second picture are Dr. Blanco, Dr. Bryant, Dr. Yuan, and Dr. Mikler.
Pictured below are our incoming PhD students for Summer 2019 and Fall 2019

CAV (Connected Autonomous Vehicle Lab):
- Dominic Carrillo
- Michael Nutt

CoVIS (Computer Visions and Intelligence Systems Lab):
- Abolfazl Meyarian

CeCERA (Center for Computational Epidemiology and Response Analysis):
- Bailu Zhang

CSRL (Computer Systems Research Lab):
- Zhuren Liu

Data Mining and Informational Retrieval Lab:
- Constant Marks

HiLT (Human Intelligence and Language Technologies lab):
- Mica Haney
- Md. Mosharaf Hossain
- Soloman Ubani
- Thasina Tabashum
- Zhaomin Xiao
- Ziruo Yi
Dr. Saraju Mohanty’s NSF Award: Easy-Med: Interdisciplinary Training in Security, Privacy-Assured Internet of Medical Things was awarded half a million dollars in collaboration with UT Tyler. The goal is to develop an off-the-shelf component based medical training framework, Easy-Med, to train STEM students with sensing, security, and privacy aspects of smart healthcare and provide them a career path in smart healthcare. The Internet of Medical Things (IoMT) is a network of identifiable interconnected medical devices which act as building blocks of intelligent pervasive medical frameworks. Easy-Med project will build some of the IoMT components and demonstrate them through training. The IoMT components can measure some human physiological parameters and health data while demonstrating that these components work.
On Wednesday, August 28th the department’s new Biomedical AI Lab group had an open house event to introduce UNT students to ongoing projects in the lab. The group is led by Dr. Mark V. Albert, one of our new faculty members who also has a secondary appointment in Biomedical Engineering. Students had a chance to chat with six UNT students who have been working with Dr. Albert over the summer or early Fall: PhD students Thasina Tabashum, Shiva Ebrahimi, and Shou-Jen (Steve) Wang; MS students Munazza Ali and Sri Sravya; and Namratha Urs from the HiLT lab on an associated side project. Current projects use a variety of machine learning techniques including HMMs, PCA, ICA, Kalman filters, and many ML prediction models. The students discussed how they are applying these tools to problems with simulated tumor tracking, assessment of lower-limb amputees, measuring spasticity, and tracking toddlers. With the lab just starting this Fall, we’re excited to already see two of these students presenting their work at national conferences later this Fall.

“GIT” INFORMED – Did You Know?

- The word “Computer” was first recorded as being used in 1613 to describe a human who performed fast calculations or computations.
- The first personal computer is considered by many to be the KENBAK-1, which was first introduced for $750 in 1971.
- Approximately 70% of virus writers are said to work under contract for organized crime syndicates.
- UNT’s Computer Science and Engineering ranks 16th in the nation for enrolling and graduating women!
Part 1: Consider the division: \( y = \frac{a}{b} / \frac{c}{d} / \ldots \). In how many different ways can the expression \( \frac{a}{b} / \frac{c}{d} / \ldots \) be parenthesized so as to evaluate to different values? For eg: consider \( y = \frac{a}{b} / \frac{c}{d} \). This expression can be parenthesized in two ways: i. \( y = \left( \frac{a}{b} \right) / \frac{c}{d} \) yielding \( y = \frac{a}{(bc)} \) and ii. \( y = \frac{a}{(b/c)} \) yielding \( y = \left( \frac{ac}{b} \right) \). Now, when we are given an expression with \( n \) variables: \( = \frac{a_1}{a_2} / \frac{a_3}{\ldots} / a_n \), in how many unique ways can we parenthesize this expression so as to yield different evaluations?

Part 2: Given the division: \( 1/2/3/4/\ldots/2n \), is there a way to parenthesize this expression so as to achieve a value of \( y = 1 \) for some \( n \)?

Please email 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 August 2019 winner is:

Don’t forget to stop by the bulletin board located in Route 66 and cast your vote for September’s Would You Rather have a super boring job that pays $1 million/year or have your dream job but get paid minimum wage?
Thanks to generous donor gifts, the CSE department is able to fund student travel, student organization special projects, department remodeling and overhaul, and put valuable resources into other student centric activities. Please remember that we depend on donations to keep activities and events alive. Many employers offer a donor match, so please encourage your family to consider donating and to check with their employer to see if they match! You can even designate what you want your donation used for!

If you would like to contribute and make a gift contact
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