

# Fall 2021 **Edition CS KICKSTART**

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Dr. David Silv

Greetings Department of Computer Science,

For those of you who have joined us for the first time on campus this fall, welcome to UTSA! We're glad you're here and that you've given us the opportunity to help you develop the technical skills you'll need to achieve your professional goals.

Although this past year was not easy on anyone, the computer science department has shown remarkable resilience and continues to be innovative in the areas of research and scholarship. From our collaborative partnership with the new School of Data Science to the great strides we're making in AI, cybersecurity and machine learning, there are many amazing things happening here that the department is excited to share with you.

I hope you enjoy reading this publication and I encourage you to share it with your loved ones to give them an opportunity to better appreciate your experience here at UTSA. I wish you the best success in your collegiate journey, and as always, the door to the Dean's Office is open for you.

Welcome to the Fall 2021 edition of the CS Kickstart newsletter! I would like to congratulate our students, faculty and staff for their successful in-person return to campus. We are all in this together and to ensure each of us does our part and keep one another safe and healthy, we highly encourage masking and vaccination!



Dr. Sushil K. Prasad

The department successfully underwent its Academic Program Review during Spring'21, a once in seven-year event. Among the areas of excellence, the reviewers commended the department's research enterprise and faculty productivity, citing external funding, PhD production rate, a high number of home-grown NSF CAREER awardees (9), its solid national and international rankings, and high visibility of the department's cybersecurity research, education, and outreach programs. Our undergraduate enrollment has been growing over 10% annually over the last 5 years, a reflection of the quality of our offerings and workforce demand. We will be responding to this demand by growing our faculty in the short and long term. We have launched a search for multiple tenure-track/tenured and endowed faculty for Fall'22. We also hired three new fixed-term track faculty this fall and are seeking additional faculty for Spring'22.

The department has just received a very generous and visionary endowment from Drs. Kay and Steve Robbins, Professors Emeriti! The fellowships will propel teaching innovations by Computer Science faculty, particularly at the undergraduate level.

In this newsletter, I invite you to read about the commitment and contribution from Dr. Zhang's twentytwo years of service to UTSA who just retired, an introduction of our new faculty, and achievements of current faculty.

We especially want to recognize our graduating CS classes of Fall 2020, and Spring and Summer 2021 who persevered through the Covid-19 era! Our hope is this newsletter will lift your spirits high and showcase the success stories of our CS community.

Sushil K. Prasad.

Chair, Department of Computer Science

### DR. ZHANG RETIRES AFTER 22 YEARS OF SERVICE

The Department of Computer Science would like to recognize Dr. Weining Zhang for his 22 years of service. Dr. Zhang served in many capacities to include, Assistant Department Chair from 2017 to present, Graduate Advisor of Record from 2000 to 2018, Chair of Graduate Studies Committee from 2000 to 2019, during which 2000 to 2005 for the Master of Science program, and 2005 to 2019 for both the Master of Science and the PhD programs in Computer Science . He has both a Master's and PhD. degree in Computer Science from the University of Illinois at Chicago, and a Bachelor's of Engineering in Computer Science and Engineering from the University of Electronic Science and Technology of China. Dr. Zhang's areas of research interest includes database systems, data mining, data privacy, cloud computing, social computing, soft computing, and bioinformatics. His many research contributions since joining the the Computer Science Department at UTSA were in the privacy-preserving data mining, container-based database system, and nature-inspired computing in data mining. One major project was on secure knowledge as a service. In this project, he designed a framework and several methods to protect privacy of data tables while still allowing data mining to produce useful results. Another project was to design methods to protect privacy in graph data (such as social networks) to enable privacypreserving graph mining. Furthermore, another project was to design a database system that runs in software containers on a cloud computing platform.



There were also two projects on applying DNA-based computation model and Membrance-based computing models to perform data mining algorithms efficiently. Their research projects were done with his PhD and MS students and visiting scholars. The results from these research activities were published in top conferences and journals.

Dr. Zhang served as a mentor and advisor to many computer science students and faculty.

The Department of Computer Science at the University of Texas at San Antonio is honored to have Dr. Weining Zhang serve as a colleague, mentor and excellent faculty!

"I enjoy working with UTSA students on research projects and on various courses. I also enjoy mentoring students, helping students navigate through their degree program. Also I enjoy the support and friendship of my faculty colleague. Last but not the least, I enjoyed the department picnics and the fun time, not to mention the opportunities to take many good pictures of our CS people".



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### UTSA COMPUTER SCIENCE WELCOMES NEW FACULTY

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### Mr. Juan Valadez, Assistant Professor of Practice



Professor Valadez volunteers at the San Antonio Museum of Science and Technology (SAMSAT) to revive 1970/1980's mainframes in an effort to showcase the technology to high school and college students and get them interested in this kind of technology. He earned Master's degree in Computer Science from St. Mary's University (2006) and a Master's in Business Administration from St. Mary's University (2011). His research interest are in cluster computing and parallel processing as it relates to cyber security and blockchain technologies. He is also a member of Institute of Electrical and Electronics Engineers (IEEE).

### Ms. Linda Rutherford, Assistant Professor of Practice



Linda Rutherford was a part time lecturer in the Computer Science Department since 2019 and has joined fulltime. She is a retired Air Force Veteran of 20 years and has a wide range of experience in technology applications and business development.

Professor Rutherford has earned 3 master degrees. She has a Master of Science, Information Technology/Cyber Security from UTSA (2017), Master of Military Operational Art and Science from AF Air Command and Staff College (2000) and MA Computer Resource and Information Management from Webster University (1995).

Dr. Byron Long, Assistant Professor of Instruction

Dr. Byron Long received his PhD in Computer Science from Indiana State University in 2009. His research interests include logics for reasoning about programs and models of computation.





# The Computer Science Department would like to recognize the following faculty for their achievements and dedication.

### **Faculty Promotion**

- Dr. Jadliwala, Associate Professor
- Dr. Zhang, Associate Professor Emeritus
- Dr. Lama, Associate Professor
- Dr. M. Robinson, Associate Professor of Instruction

### **Faculty Appointments**

Dr. Korkmaz, Assistant Chair

- Dr. Lama, Undergraduate Advisor of Record
- Dr. Jha, Graduate Advisor of Record for Master of Science Computer Science
- Dr. Jadliwala, Graduate Advisor of Record for Master of Science Cybersecurity Science

### UTSA PROFESSOR TURNS ACCIDENT INTO SCOOTERLAB

Reprinted from mysanantonio. com

It's a classic origin story — one of a near death experience leading to eureka.

After almost meeting his end at the hands of a whizzing e-scooter on the UTSA campus, Murtuza Jadliwala, an assistant professor in the University's Department of Computer Science, wheeled out a new scooter-inspired research laboratory, according to UTSA Today.

In recent years, the zippy method of transportation has become increasingly popular in high-traffic areas, and not without accidents. Instead of submitting a vengeful ban on escooters like one might expect, Jadliwala became hyper-fixated on the useful data the vehicles could provide — particularly in regard to safety. "When I saw all these scooters on campus, I realized they not only carry people, but can also carry sensors that can help us collect data, which is great for all these technological advances we want to make," Jadliwala tells UTSA Today.



"That also got me thinking that by obtaining data from them, we can study the impact of scooters on pedestrian safety."

Some ways the data could prove useful to this goal is by pinpointing high-traffic regions on campus, which could then be diffused through designated pedestrian areas being developed to avoid a two-wheel accident.

Research begins once small computers are attached to scooters purchased by the lab. With the help of a UTSA doctoral student Raveen Wikewickrama, Jadliwala and company built the first tiny data-collector attachment using a Raspberry Pi computer, complete with sensors and a small battery.

The operation on wheels in question is appropriately named ScooterLab. Funding for the data vehicle pilot program derives largely from a \$100,000 grant from the National Science Foundation (NSF).

"The sensors can collect GPS location, exploration and audio data that connect to our test phone through Bluetooth," Wijewickrama explains to the collegiate publication.

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#### Continued

We can download the data from our phones for analysis. This is just a prototype. Our next version will have the capability of transmitting the data to a collection center through a 5G transmitter." The team is currently developing more advanced models, but with micro-mobility data being so sensitive and sought-after by big companies, the team claims they want to keep the small scooter operation in-house.

While the pilot-program is currently payrolled with government funding, if the team were to accept investments from private companies, Jadliwala asserts it could lead to a conflict of interest with their research goals surrounding scooter safety.

"Collecting data in an ethical fashion and storing it securely, to ensure privacy of users, are grand challenges which we are still planning," says Jadliwala.

If ScooterLab can secure more funding from the NSF or other public entities, avoiding private interest groups, then a full fleet of scooters are scheduled to hit the pavement by mid-2020. An app will be created to onboard UTSA students, where they will agree to their data being collected in exchange for scooter rides at little to no cost.

Until then, Jadliwala's project is potentially a promising solution to the hazardous chaos legions of e-scooters have brought to urban areas and college campuses around the nation.





# **CS KICKSTART**

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### **Staff Recognition**

### Susan Allen



Susan Allen has been a staff member of the Computer Science Department for the last 10 years. Susan came into the department as an Administrative Assistant in charge of records and files for the Computer Science Graduate students.

Starting in her first year, Susan showed initiative by making changes in departmental procedures for tracking student's progress, standardizing departmental forms, etc. She has continued that same initiative and progress throughout her tenure in the Computer science department.

As the department grew, Susan continued to improve procedures and processes within the department. Ten years ago all graduate admissions documents were prepared student by student. Susan streamlined that procedure by creating an Access database for graduate applications.

The important information could be merged into admission documents as a group thus saving time and energy. Also by keeping a database of all current students, she has been able to easily track graduate students progress.

Susan has guided hundreds of Computer Science Master and PhD students and has an outstanding record of serving as an effective advocate for graduate students in their programs. She has an open and friendly attitude that makes students feel comfortable with her and has always treated the students with respect.

Susan has prepared hundreds of petitions, degree audits, programs of studies, letter of skills learned, letters for international students regarding extensions of their visa's, etc. Not only has she been an effective advocate for the students but a cheerleader as well, giving the students support and encouragement.

"I am most proud of my relationship with the 100's of graduate students who have taken CS classes"- Susan

### **Recent CS Grants and Awards**

#### "Intelligent Virtual Reality System for Language Learning"

Amount: \$74,750

Start Date: 08/2020 End Date: 09/2022

PI/PD: John Quarles, Lead Contribution 50% Co-PI: Amanda Fernandez, Contribution 30%Co-PI: Michael Rushforth, Contribution 20%

#### Abstract:

This project seeks to enable a realistic, portable, and automated system of language learning for military interpreters. The initial proof of concept will focus on a Spanish airport immigration scenario. The user will navigate through virtual airport security, speaking and responding to Spanish prompts that are given by the virtual airport security agents. The system will provide automated assessments of the users' responses to the prompts and examples of alternative correct responses.

#### **Explore STEM! at UTSA**

Amount: \$61,224

#### Start : March 2021 End Date December 2022

PII: Wei Wang, Co PI: Kathy Ewoldt, Mimi Xie , Alberto Mestas-Nunez

Abstract: The goal of this summer camp is to provide students with disabilities the opportunity to learn about STEM occupations through instruction and hands-on activities. In particular, this camp will provide hands-on activities to build autonomous driving AI. The students will learn basic computer programming concepts, programming skills, computer vision and data science. For students with reading deficits, assistive technology (i.e., text to speech) and support specialists, who can read the instructions aloud, will be available. The hands-on activities will cover software engineering and data science. The students will learn basic programming concepts, basic programming language, software programming, computer vision and data science. The guest speakers will cover subjects of machine learning, virtual reality, geology and engineering.



## CS related events?

Do you have any success stories to share?

What do YOU want to see covered in this newsletter?

Do you know of upcoming

Email suggestions and topics to the editor at cs@utsa.edu

Debra Leal, Editor

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#### CCRI: Planning: ScooterLab: Development of a Programmable and Participatory e-Scooter Testbed to Enable CISE-focused Micromobility Research

Sponsor: National Science Foundation

Amount: \$100,000.00 Start Date: 10/2020 End Date: 03/2022

PI: Murtuza Jadliwala

#### Abstract:

Single-rider micromobility vehicles, such as dock-less batterypowered e-scooters, are a fast-growing and popular short-distance transportation mechanism in our urban communities. This upcoming transportation paradigm not only provides new research opportunities in Computer and Information Science & Engineering (CISE) focused areas of large-scale data management, computer hardware/software systems design, cyber security and userprivacy, but also serves as an excellent instrument to collect contextual data that could enable research in a variety of other CISE and multi-disciplinary areas such as machine learning, high performance comdisciplinary research collaborations.

### Targeted Materials Characterization and Testing of Additively Manufactured Metals and Ceramics to Inform Print/Build Data Analytics

Amount: \$800,000

Start: October 2021 TO September 2021

PI: Elizabeth Sooby, Co PI: Amanda Fernandez, Ana Stevanovic

Abstract: A collaborative program between the University of Texas at San Antonio (UTSA) and Boise State University (BSU) is proposed to supply materials testing and characterization data sets on additively manufactured core materials to be produced and leveraged by the TCR program to inform build/print data analytics methods. Specifically, the team will perform high temperature steam oxidation testing characteristic of steam ingress from a depressurized loss of coolant accident in either a light water reactor (LWR) or an advanced gas reactor (AGR) within a steam secondary cycle.

> For the latest department news updates, visit our website at cs.utsa.edu Or follow us on social media





LinkedIn Group linkedin.com/ groups/5061256

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#### The National Security Agency Selected UTSA as a Program Participant for the NSA ONRamp II Program PI: Dr. White; CO PI: Dr. Boppana; UTSA CS

The OnRamp II program seeks to build upon the prior OnRamp program, the successes of which highlighted the benefits of NSA's investment. Specifically, NSA plans to effect a successor program aimed at fostering educational partnerships between NSA and academic institutions to increase the pipeline of students in Science, Technology, Engineering, and Mathematics (STEM) disciplines pursuing employment with NSA while enhancing their academic caliber. NSA plans to enter into Educational Partnership Agreements (EPAs) with a set of institutions most likely to achieve the OnRamp II goals (i.e., OnRamp II Schools).

The National Security Agency's (NSA) OnRamp II Scholarship Program fosters educational partnerships between NSA and academic institutions to promote the technical health and diversity of students in Science, Technology, Engineering and Mathematics (STEM). An important element this partnership includes: scholarships, internships, and opportunity for mission-focused research.

#### NSA plans to:

•Provide academic scholarships to OnRamp II School undergraduate and graduate students in return for a service obligation

•Provide internship opportunities to OnRamp II School undergraduate and graduate students

•Provide academic and career advice and assistance to OnRamp II School undergraduate and graduate students

•Provide sabbatical opportunities at NSA to OnRamp II School faculty members to enhance collaboration and partnership benefiting the Agency, the faculty members and the academic institution

•Allow for OnRamp II Schools to seek and perform contract based cybersecurity work.

# **CS KICKSTART**

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### **BITS N' BYTES PROGRAM**

**Bits n' Bytes Program Mentee** - Are you a firstyear student interested in computer science? Not sure where to begin or you want a student network? If you said yes to both, you're a perfect fit for the Association for Computing Machinery's Bits n' Bytes program! It is a student-led program that gives first time students a casual environment to receive mentoring, learn about topics in computer science, and make some friends!

https://bit.ly/3zvXmr0

**Bits n' Bytes Program Mentorship** – Are you an upper-level student interested in sharing your knowledge with new students and giving back to the UTSA computer science community? If so, you're a perfect fit to be a student mentor for the Association for Computing Machinery's Bits n' Bytes program! As a student mentor, you would give academic and general guidance to students in a low-commitment, casual environment focusing on community build and topics in computer science that interest you.

https://bit.ly/2UUpV2H



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### Students gain valuable experience in software applications for cloud environments

Reprinted from UTSA Today

JULY 22, 2021 — The Department of Computer Science in the UTSA College of Sciences has created a partnership with the National Upcycled Computing Collective Inc. (NUCC) to provide the hardware necessary to build and maintain a Kubernetes cluster, a computing tool that runs virtual operating systems. The resources will be made available to students enrolled in upper-level software engineering courses and web technologies and to selected faculty, further enabling workforce preparation at the university.

UTSA students will gain valuable experience using Docker and Kubernetes, two powerful technologies that are rapidly becoming an industry standard. The knowledge and practice with these two in-demand technologies will give UTSA computer science students a competitive advantage as they begin their careers in cloud environments.

"Tis is a huge boost for software engineering at UTSA," said Mark Robinson, assistant professor of practice in computer science. "We will be one of the few institutions in the country to provide this type of technology and training to our students in the classroom. The value for our students as software developers and their future employers will be immense."

With the Kubernetes cluster, students will be able to deploy containerized projects, applications and systems. When coupled with the supervision and course curriculum provided by UTSA faculty, they will also learn how to use these game-changing tools to build and execute an effective software development and operations pipeline.

Container software, such as Docker, provides cloud environments for containerized applications to run with a variety of features, including storage, automation and management. By isolating applications from the surrounding environment, containers and container software provide greater flexibility for workloads in data centers. Kubernetes is an opensource container orchestration platform that was released in 2013 and designed by Google. It integrates with other container management systems. The NUCC is a nonprofit organization based in Fullerton, California. It facilitates environments for computer science, engineering and security researchers while providing donated hardware to schools and institutions to augment educational capabilities.

"NUCC is pleased to begin our partnership with UTSA by providing hardware useful to the students and faculty," said Andrew Sneed '20, director of civil operations at NUCC. "We look forward to seeing the growth of knowledge among students built on upcycled hardware."

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The collaboration between NUCC and UTSA is just one example of the commitment between UTSA and industry partners, a partnership that is also strengthening the UTSA community research into artificial intelligence, usability and defense. Research centers and outreach programs provide UTSA students and faculty with additional opportunities to explore the various facets of software engineering—a highdemand and ever-changing field.

San Antonio is among the nation's largest cybersecurity hubs and home to the largest concentration of cybersecurity experts and industry leaders outside Washington, D.C., uniquely positioning the city and UTSA to lead the nation in cybersecurity research and workforce development together.

- Milady Nazir



### UTSA Camp Expands STEM Opportunities for Teens with Disabilities

SAN ANTONIO — UTSA is offering people with disabilities the opportunity to learn valuable job skills through its ExploreSTEM camp next month.

"I just want to make one of those robots that, you know, is able to work for (you) and kind of, like, hand out stuff and give it to you, but you still get up and do stuff too, but it also helps around the house," said Kameron Shanafelt.

After participating in an ExploreSTEM computer coding camp last year through the University of Texas-San Antonio, Shanafelt started to see his possibilities coming into view. "I participated by making collision detection about a car," he said.

Shanafelt, who has Attention Deficit Hyperactivity Disorder and autism, found the camp through the Vocational Rehabilitation Services Program, an initiative of the the Texas Workforce Commission. It connects people with disabilities to job opportunities and training. "Teachers and students, we learned a lot from the whole process," said Wei Wang, assistant professor of computer science at UTSA.

Wang is one of the developers at the ExploreSTEM coding camp. He says that programming autonomous vehicles is a good avenue for teaching the basic concepts of computer coding. "It actually is a good combination of the practical part and the theoretical part," Wang said.

Last year was the first coding camp UTSA held. Wang says that once they adjusted to the students' learning style, most of them picked things up fairly well. "This is actually from a teacher's perspective; any time the student learns, we're happy," Wang said. "And honestly, for a majority of the students in the camp, I don't think they had any difficulties in learning this stuff."

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Shanafelt, who has Attention Deficit Hyperactivity Disorder and autism, found the camp through the Vocational Rehabilitation Services Program, an initiative of the the Texas Workforce Commission. It connects The coding camp has welcomed students with developmental disabilities and severe visual impairment. Wang says computer science as a career field is well suited to people with disabilities because they can adapt it to their lifestyles.

"There's no requirement for location, we were starting to do remote work even before the pandemic," he said. "And it has very limited requirement for you to interact with people if you do not like it. And, personally, that's one of the reasons I like computer science too; I don't have to talk to people too much."

There are still spots available for the next sessions of the ExploreSTEM camp, set to take place in the next two weeks. Wang seems to have made an impression on Shanafelt, who plans on attending again this year.

"He has a great sense of humor and he's really funny," Shanafelt said. "He's one of those teachers where if you weren't finished with the programming part yet, the step he was on, he'd wait for you until you're ready." The camp is open to Texas high school students with disabilities between the ages of 14 and 22 currently working with a Texas Workforce Commission counselor. The Computer Science Department would like to introduce the Master of Science in Cybersecurity Science degree.

The **Master of Science (M.S.) Degree in Cybersecurity Science** offers a comprehensive and hands-on education in the area of Cybersecurity. The program provides students with a broad exposure to the highly dynamic Cybersecurity discipline along with a deep technical and scientific understanding of the related concepts, tools and techniques. The degree provides broad exposure to the cybersecurity discipline along with a deep understanding of its technical and scientific underpinnings.

Dr. Jadliwala, the Graduate Advisor of Record, goals are "(i) improving the quality and diversity of cybersecurityfocused courses offered as part of this degree program, and (ii) providing prompt and excellent quality of service to both prospective and current cohort of students. In the first direction, he will work with the CS department to provide additional cybersecurity-focused elective course offerings on key topics that are currently missing in the curricula, for example, hardware security, AI/ML security, cloud computing security, web security and privacy enhancing technologies. He also plans to conduct a thorough review of the existing curricula to reduce content overlap across existing courses. In the second direction, he will introduce processes to improve the current response time(s) to both student queries, as well as, application review and admission decisions."

For additional information on the Master of Science in Cybersecurity Science degree: www.https://cs.utsa.edu/ms-cybersecurityscience

### Dr. Korkmaz, Assistant Chair of Computer Science Department

The Computer Science department welcomes Dr. Turgay Korkmaz as the new Assistant Chair. As the Assistant Chair of Computer Science, Dr. Korkmaz is responsible for assisting the Chair with day-to-day operations of the Department. Dr. Korkmaz will oversee several important tasks such as faculty development, classroom scheduling, all aspects of undergraduate and graduate programs. Dr. Korkmaz would like to specifically focus on student success activates and improve the quality of education for all Computer Science students.

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### STUDENT ORGANIZATIONS FOR UTSA COMPUTING STUDENTS

UTSA has more than 330 student organizations on campus, giving its students have plenty of opportunities to connect with one another. Computer Science (CS) has many student organizations organized and run by computer science students to create a network of community amongst their fellow CS peers. One of the best ways to get connected with other students and stay in-the-know of upcoming events and activities is to join one or more of the CS clubs available for students. These organizations host various events throughout the year, including but not limited to hackathon competitions, capture the flag cyber competitions, industry panels from invited speakers, volunteer opportunities, career prep, hands-on tech workshops, studying sessions, mentoring circles, networking events, and fun socials on and off-campus.

### ACM

### Association for Computing Machinery

ACM is dedicated to giving members and students the opportunity to gain experience, network, socialize, learn, and grow outside of the classroom in all fields of technology and computing.

Email council@acmutsa.org Website https://www.acm-utsa.org/

### ACM-W

Association for Computing Machinery Women's Chapter

ACM-W aims to create an engaging academic, professional, and social network for women and minorities in technology. ACM-W's purpose is to connect students with leaders and encourage them to pursue career opportunities in computing fields and to mentor for academic and professional success.

Email acmw.utsa@gmail.com Website https://www.acm-utsa.org/acm-w

## ACM - ICPC

### International Collegiate Programming Contest

International Collegiate Programming Contest The ACM-ICPC, or International Collegiate Programming Contest, is a world-wide programming contest where thousands of 3-person teams compete by solving anywhere from 8 to 12 algorithm problems of varying difficulty, from easy to extremely hard.

Email Mark.Robinson@utsa.edu Website https://www.acm-utsa.org/icpc

## **RowdyHacks**

### ACM RowdyHacks Committee

RowdyHacks is ACM UTSA's annual hackathon held every year in April. Every year, a committee of ACM members get together to help plan and organize the biggest hackathon in San Antonio, TX accommodating hundreds of students, sponsors, volunteers, and mentors. Email team@rowdyhacks.org Website https://www.acmutsa.org/rowdyhacks-1

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### INTERDISCIPLINCARY AND GRADAUATE STUDENTS ORGANIZATIONS FOR COMPUTING

As the university encourages more collaboration across departments and colleges, more students begin establishing interdisciplinary organizations across wide varieties of fields and specializations. For Computer Science students, there are many opportunities to connect with students from other majors and programs to network with, learn from one another, and develop well-rounded skills applicable to their field of study. Masters and PhD students also have opportunities to connect with their peers through the graduate student organizations across the university and in the Computer Science department specifically. Graduate students are provided more research specific seminars and information sessions to assist with their courses, theses, and dissertations, as well as social events to connect with their peers and motivate one another to succeed.

## RowdyCreators

ACM RowdyCreators Rowdy Creators is a technology startup incubator that provides students with the opportunity to learn new technologies, build hands-on projects in diverse teams, formulate innovative ideas, and develop proofs-of-concept for potential startup ventures.

Email rowdycreators@gmail.com Website https://www.acm-utsa.org/rowdycreators

## CSA

Cyber Security Association CSA regularly participate in offensive and defensive cyber competitions and exercises to hone their skills. CSA provides training and professional events for students in computing fields.

> Email utsacyber@gmail.com Website http://utsacyber.com/

## CS-GRAD

Computer Science Graduate Student Association

CS-GRAD is the graduate student group for computer science students at UTSA. Join us for tips and tricks for efficient grading and effective recitations.

Website https://discord.gg/weNtPTy

## IEEE EBM

IEEE Engineering in Medicine and Biology Society

All students, especially those interested in the fields that make up the EMBS, are welcome to join. Through volunteering, education, and informative presentations, we strive to promote innovation and participation in the field of technology and medicine

Website https://embsutsa.wordpress.com/



### 2020-2021 Doctoral Computer Science Graduates

**CS KICKSTAR** 

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### Sharvari Komajwar

Doctor of Philosophy in Computer Science Major Professor: Turgay Korkmaz, Professor, Ph.D. Dissertation Title: "Source-Path Routing Model for Software Defined Networks"

### Naiwei Liu

Doctor of Philosophy in Computer Science Major Professor: Ravi Sandhu, Professor, Ph.D. Dissertation Title: "Cache-Based Attack and Defense on ARM Platform".

### Hamidreza Moradi

Doctor of Philosophy in Computer Science Major Professor: Dakai Zhu, Ph.D. Dissertation Title: "User-Level Profiler-Based Predictive Framework for Applications in Multi-Tenant Clouds"

### Hengheng Zhang

Doctor of Philosophy in Computer Science Major Professor: Jianhua Ruan, Professor, Ph.D. Dissertation Title: "Robust Representation Learning for Person Re-Identification in the Wild"

### Safwa Ameer

Doctor of Philosophy in Computer Science Major Professor: Ravi Sandhu, Professor, Ph.D. Dissertation Title: "User-To-Device Access Control Models for Cloud-Enabled IoT With Smart Home Case Study"

### John Charlton

Doctor of Philosophy in Computer Science Major Professor: Ravi Sandhu, Professor, Ph.D. Dissertation Title: "Inferring Malware Detector Metrics in the Absence of Ground Truth"

### Maryam Zand

Doctor of Philosophy in Computer Science Major Professor: Jianhua Ruan, Professor, Ph.D. Dissertation Title: "Network Based Unsupervised Machine Learning Methods for Single Cell Data Analysis"



Your career interest and development is important because you are working toward to dream, a goal, and a purpose! The University Career Center will work with you to support you finding experiences and opportunities while with UTSA and beyond. Creating a plan and strategy for your success is our passion. Therefore, we provide individual career counseling, virtual networking events with employers from across the country, and a vast array of virtual resources.

Check out what we have for you!

- Log-in to Handshake to connect, schedule appointments, find events, jobs and more!
- Unsure about what career to pursue? Take the Career Explorer Assessment
- VMock provides you with instantaneous feedback on your resumes, 24/7.
- CareerShift is a national job search tool. Career Shift pulls jobs posting from all over the internet and puts them all in one place.
- Interview Stream allows you to get interview practice before the actual interview! Practice from the comfort of your computer and

get feedback on how on well you did.

- Check additional resources the University Career Center offers on our Resources Page.
- Join us at our largest fall fairs. Keep an eye on our website or Handshake for all the details!

You can also just visit our website or email us at career.services@utsa.edu.

We look forward to connecting with you!

## Computer Science Major Scholarships Available for Current & Prospective Students

Armed Forces Communications Electronics Association Cyber Security (AFCEA) Will Winsborough Memorial Endowed Scholarship NSF Scholarships for Service Allen N. Martinese Endowed Scholarship Center for Infrastructure Assurance and Security (CIAS) Annual Scholarship CNF Cyber Security Scholarship Edward Engates Memorial Scholarship Michael Maltrud Memorial Scholarship Richard Murphy & Mary Bancroft Book Fund Computer Science Academic Graduate Scholarship

Apply at UTSA Scholarship Hub



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