

CS KICKSTART

SEPTEMBER 18, 2017

INSIDE THIS ISSUE:

WELCOME FROM DEAN'S OFFICE AND DEPT CHAIR	1
CYBERSECURITY DYNAMICS LAB RECEIVES \$2M ARMY RESEARCH GRANTS	1
ZHANG APPOINTED ASSISTANT DEPT CHAIR	2
NEW FACULTY JOIN UTSA CS DEPT	2
UTSA CS SENIOR RECEIVES BEST IN SHOW AWARD	2
FACULTY GRANTS	3
FEATURED PHOTO: CS DEPARTMENT WELCOMES NEW STUDENTS	3
\$5M NSF CREST GRANT FOR NEW CLOUD COMPUTING RESEARCH CENTER	4
WHITE RECEIVES TEXAS NATIONAL SECURITY NETWORK EXCELLENCE GRANT	4
2017 PHD CS GRADUATES	4
SANDHU, GUBANOV, AND UTSA PHD STUDENT RECEIVE IEEE AWARDS	5
INTERVIEW WITH UTSA ALUMNI GABRIELA BOENTGES	6
OPEN EDUCATIONAL RESOURCES GRANT FOR DESIGN OF EBOOK	6
UTSA PILOTS INTERNSHIP WITH 470TH MILITARY INTELLIGENCE BRIGADE	7
STUDENT SPOTLIGHT: JOSÉ DAVID MIRELES	7
JOB OPPORTUNITIES	8

LETTER FROM THE DEAN'S OFFICE

The College of Sciences (COS) Dean's Office extends a very heartfelt welcome to you.

The *CS Kickstart* has quickly become a valuable source for current information regarding the great things that are happening in the Department of Computer Sciences. I especially enjoy the faculty and student highlights and featured job opportunities.

I encourage you to become an avid reader of this publication. The Department of Computer Sciences continues to be innovative in scholarship and outreach. The COS Dean's Office wishes you all the best in your collegiate efforts. Our door is open to assist you in meeting your career aspirations!

Floyd L. Wormley, Ph.D.
Associate Dean of Research & Graduate Studies,
College of Sciences



Dr. Floyd Wormley

LETTER FROM THE DEPARTMENT CHAIR

Welcome to a new academic year and to a new edition of *CS Kickstart*. The Department made significant progress in the last few years—for example, over 100 CS graduates in the last academic year and strong participation by student chapters in department's outreach efforts.

The start of the fall semester is always exciting. Many CS faculty received significant extramural research funding over the summer, new faculty joined the department, the demand for CS courses continues to increase geometrically, two new concentrations—Data Science and Cloud and Systems—are introduced, and CS students are more in demand than ever. You can read all about it in this issue of *CS Kickstart*.

Rajendra V. Boppana, Ph.D.
Chair, Department of Computer Science



Dr. Rajendra Boppana

CYBERSECURITY DYNAMICS LAB RECEIVES \$2M ARMY RESEARCH GRANTS



Dr. Shouhuai Xu

Over the summer break, UTSA professor of computer science Dr. Shouhuai Xu and his Laboratory for Cybersecurity Dynamics team were selected to receive two grants collectively amounting to \$2 million in research funding.

The first research proposal, titled "MTD Dynamics: A Quantitative Framework for Modeling and Orchestrating Moving-Target Defense", was selected for funding by the Army Research Office in the amount of \$400,000.

This project uses the methodology of the X-axis to investigate the modeling, analysis, and quantification of the effectiveness of Moving-Target Defense mechanisms and then uses the resulting knowledge and insights to orchestrate the effective,

if not optimal, use of Moving-Target Defense mechanisms.

The second research proposal, titled "Modeling, Analyzing and Predicting Cyber Attacks," will be funded by the Army Research Laboratory for the amount of \$1.6 million.

This project uses the methodology of the Y-axis mentioned above to investigate models and algorithms for predicting cyber attacks and for providing early-warning to cyber defenders.

Dr. Xu and his laboratory team currently have a pending project on Cybersecurity Metrics, which uses the methodology of the Z-axis mentioned above to investigate metrics for quantifying security and trustworthiness from a holistic perspective.

For more information on UTSA's
Laboratory for Cybersecurity Dynamics, visit:
<http://www.cs.utsa.edu/~shxu/LCD/index.html>

ZHANG APPOINTED ASSISTANT DEPARTMENT CHAIR



Dr. Weining Zhang

UTSA associate professor of computer science, Dr. Weining Zhang, has been appointed assistant department chair of the Department of Computer Science.

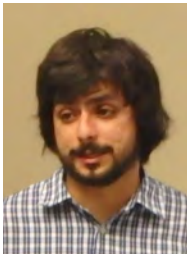
Zhang joined UTSA as an Associate Professor in Fall of 1999 after working in the Math and Computer Science department at University of Lethbridge in Alberta, Canada. He has served as the department graduate advisor of record since the spring semester of 2000.

As assistant chair, Zhang's goals include improving program quality, increase student recruitment, and advancing curriculum development. He also hopes to provide effective support for faculty, students, and staff to promote a collegial environment within the department.

Zhang earned both a master's and Ph.D. degree in computer science from the University of Chicago, and his bachelors of engineering from the University of Electronic Science and Technology of China.

Zhang's areas of research interest include database systems, data mining, data privacy, cloud computing, social computing, and bioinformatics.

NEW FACULTY JOIN UTSA COMPUTER SCIENCE DEPARTMENT



Dr. Rocky Slavin

Recent UTSA Ph.D. graduate Dr. Rocky Slavin will join the Department of Computer Science as an assistant professor in practice starting this Fall 2017.

Slavin earned his doctoral degree in Computer Science from The University of Texas at San Antonio in Summer 2017, and his bachelors of science in Computer Science in 2012.

Slavin's research interests include software engineering and cyber security, specifically mobile application security and security requirement patterns.

In addition to co-founding a web-based management system called "Sciunteer Technologies," he has also worked on collaborative research projects involving privacy policy analysis, mobile applications, and security.



Dr. Vijayalakshmi Saravanan

A newcomer to the UTSA campus, Dr. Vijayalakshmi Saravanan will be joining the Department of Computer Science as an assistant professor in practice starting this Fall 2017.

Saravanan earned her doctoral degree in Computer Architecture from Mälardalen University (Sweden) in 2011 and her masters of Computer Science from Manonmaniam Sundaranar University (India) in 1990.

Saravanan's research interests include multi-core low power design exploration, power-aware processor design, and computer architecture. She has conducted part of her research study at the University of Rochester.

Saravanan is a member of IEEE, ACM, CSI, and is also an active board member for N2WOMEN (Networking Networking Women), IEEE/ACM Women in Engineering, and the IEEE-WIE VIT affinity group in India.



Dr. Amanda Fernandez

Dr. Amanda Fernandez will be returning to UTSA as an assistant professor in practice for the Department of Computer Science in Fall 2017.

Fernandez, formerly a UTSA lecturer of computer science in 2016, spent time working at USAA as a Senior Research Engineer prior to her return to academia.

Fernandez earned her doctoral and masters degree in Computer Science from the University of Albany, SUNY and her bachelors of science from Siena College.

Her research interests include machine learning, computer vision, and signal processing.

Fernandez is a member of IEEE and the Society of Photo-Optical Instrumentation Engineers (SPIE).

UTSA CS SENIOR RECEIVES BEST IN SHOW AWARD AT 2017 UNDERGRADUATE RESEARCH AND CREATIVE INQUIRY SHOWCASE



UTSA senior computer science major Bilal Siddiqui accepts the Best in Show award for the UTSA Undergraduate Research & Creative Inquiry Showcase 2017 from Dr. Bernard Arulanandam, interim vice president for research.

Over 100 students from all disciplines came together to present their current research at the 2017 UTSA Undergraduate Research and Creative Inquiry Showcase.

UTSA senior computer science major Bilal Siddiqui received the "Best in Show" award for his research titled "Transient Fault Recovery in Relation to Redundancy."

Under the supervision of Dr. Dakai Zhu and Dr. Abdullah Muzahid, Siddiqui's research explored solutions for resolving transient faults (soft errors) from an architectural point of view due to inherent performance advantages. Improving reliability will become increasingly important as emerging technologies put more stress on finite computer resources.

Siddiqui extensively utilized the Real-Time and Embedded Systems (RTES) Lab to conduct his research. He also had support from Dr. Wei Wang (Computer Science) and Dr. Sue Hum (English Department) in the writing and review of his submitted thesis.

GIBSON RECIEVES \$366K NSF GRANT AWARD



Dr. Matthew Gibson

UTSA assistant professor of computer science Dr. Matthew Gibson was granted a \$366,250 research grant from the National Science Foundation.

His project, titled "AitF: Collaborative Research: Automated Medical Image Segmentation via

Object Decomposition," aims to develop a novel medical image segmentation algorithm that can be applied to various types of medical images.

In the past, this highly technical, individualized care has required experts to manually analyze the images. Gibson's algorithm will simultaneously identify all the components for vital organs. This single algorithm can be applied to many scenarios and be executable by non-technical users, making it more accessible to medical professionals and lead to more comprehensive and customized care for patients.

WANG RECIEVES \$128K NSF EAGER GRANT



Dr. Xiaoyin Wang

UTSA assistant professor of computer science Dr. Xiaoyin Wang received a 2017 National Science Foundation EAGER grant award in the amount of \$128,288.

The project, titled "EAGER: Tracing Privacy-Policy Statements into Code for Privacy-Aware Mobile App Development," will be conducted with UTSA's Institute of Cyber Security laboratory.

Wang and the ICS will mine large sets of privacy policies and corresponding code to find out how, or to what extent, policies manifest themselves in code. To the extent that consistency between privacy policies and code can be determined, new approaches to privacy policy understanding and enforcement might be possible.

RUAN RECIEVES NIH GRANT AWARD



Dr. Jianhua Ruan

UTSA associate professor of computer science Dr. Jianhua Ruan was selected to receive research grant funds from the National Institutes of Health.

The project, titled "Systems Analysis of Epigenomic Architecture in Cancer Progression" will receive a total sum of \$1,918,884 over the course of five years.

Ruan will serve as co-investigator for the data management and analysis core. He will collaborate with core principal investigator UT Health Science Center associate professor Dr. Victor Jin to lead the effort to implement and maintain new software tools for the computational models, and manage the data submission to public archives, maintain data repository and visualization.

FEATURED PHOTO: CS DEPARTMENT WELCOMES NEW STUDENTS



The Department of Computer Science hosted weekly information sessions during Summer Orientation to welcome incoming first-time students.

Undergraduate advisor, Dr. Turgay Korkmaz, gave an overview of the programs available, options for concentrations, resources available, and advice for course scheduling.

Representatives from the Association for Computing Machinery (ACM) and Computer Security Association (CSA) chapters also welcome students and gave insight on student life and upcoming events at UTSA.

Student Organizations for Computer Science

Association for Computing Machinery (ACM)

hosts talks and presentations, and gives you the chance to compete in worldwide programming contests for students. Contact acm.utsa@gmail.com for more information.

Association for Computing Machinery Women's Chapter (ACM-W)

aims to create an engaging academic, professional, and social network for women in technology. Contact acmw.utsa@gmail.com for more information

Computer Security Association (CSA)

hosts meetings, talks and presentations from researchers in the field, and cyber security contests. Contact utsacyber@gmail.com for more information

Computer Science Graduate Student Association (CSGSA)

organizes events to encourage research activities and provide a knowledge sharing environment in the department of computer science. It coordinates with other related organizations to enhance networking opportunities, facilitate recruitment information sessions, and host computing related speakers and contests. Contact Lee Boyd at lee.l.boyd@gmail.com for more information.

UTSA INSTITUTE OF CYBER SECURITY RECEIVES \$5M IN NSF CREST RESEARCH GRANTS FOR NEW CLOUD COMPUTING RESEARCH CENTER



Researchers at UTSA have been selected to receive a \$5 million grant from the National Science Foundation's Centers of Research Excellence in Science and Technology (CREST) program to establish a multi-disciplinary center for cloud computing and cyber security education and

research. The UTSA CREST Center for Security and Privacy Enhanced Cloud Computing (C-SPECC) is scheduled to open this Fall 2017.

Dr. Ravi Sandhu, UTSA professor of computer science and executive director of the Institute for Cyber Security, will work with a team of a dozen faculty members from four UTSA colleges to establish the center.

The center's multi-disciplinary approach aims to train students in an integrated learning environment where research and education are at the intersection of cloud computing and cyber security.

C-SPECC will articulate three research thrusts: Protection, Detection

and Policy. The Protection sub-project will develop access control, private computing and protected computing technologies for cloud computing. The Detection sub-project will focus on system and host monitoring techniques to detect anomalous activity in a cloud along with digital forensic techniques for cloud-based systems. The Policy sub-project will research policy specification, composition and verification techniques for secure cloud computing.

Sandhu and his team hope this center will become nationally recognized for excellence in research, innovation and education in security and privacy enhanced cloud computing. C-SPECC intends to increase the participation of underrepresented groups in STEM professions, especially high technology computing, and to pursue innovative research-based educational strategies for grades 8-12, undergraduate and graduate students in this field.

"UTSA's exceptional faculty are leading the way in cybersecurity and setting national the bar for top-tier institutions," said George Perry, dean of the UTSA College of Science. "UTSA is charting a path to lead San Antonio to the highest standards of cybersecurity research and innovation."

WHITE RECEIVES TEXAS NATIONAL SECURITY NETWORK EXCELLENCE GRANT



Dr. Greg White

UTSA professor of computer science and director of the UTSA Center for Infrastructure Assurance and Security (CIAS) Dr. Gregory White was selected to receive a grant in the amount of \$80,000 from the Texas National Security Network Excellence Fund.

His project, titled "Development of Standard Cybersecurity Intrusion Detection Data," aims to create a standard set of current test data that can be used by researchers and companies across the nation for testing cybersecurity

tools. As such, this effort has the potential to not only provide a valuable product to national cybersecurity efforts but would also bring tremendous attention to the UT-System as the provider of a standard set of test data.

Additionally, White was also selected to receive a supplement to one of his current National Science Foundation grant projects titled, "The Artifact Genome Project (AGP)" in the amount of \$46,387.

The AGP is essentially a centralized dataset of digital forensic artifacts built with crowdsourcing in mind. This collected artifact dataset can help both investigators and scientists either in manual examinations, or in automated digital forensic triaging of systems.

2017 Doctoral Graduates

The following students were recently awarded doctoral degrees from the UTSA Department of Computer Science.

Prosunjit Biswas (Spring 2017)

Dissertation Title: "Enumerated Authorization and Policy ABAC Models: Expressive Power and Enforcement." Supervising Professor—Dr. Ravi Sandhu.

Rehana Begam (Summer 2017)

Dissertation Title: "Time Sensitive VM Provisioning for Resource-Constrained Clouds." Supervising Professor—Dr. Dakai Zhu.

Lu Liu (Summer 2017)

Dissertation Title: "Novel Algorithms and Metrics for Functional Discoveries from Networked Biological Data." Supervising Professor—Dr. Jianhua Ruan.

Rocky Slavin (Summer 2017)

Dissertation Title: "Applying Semantic Analysis for the Alignment of Natural Language Privacy Policies with Application Code." Supervising Professor—Dr. Jianwei Niu.



SANDHU RECEIVES 2018 IEEE INNOVATION IN SOCIETAL INFRASTRUCTURE AWARD



Dr. Ravi Sandhu

Dr. Ravi Sandhu, UTSA professor of computer science and executive director of the Institute for Cyber Security, was selected to receive the 2018 IEEE Innovation in Societal Infrastructure Award. This award is given in tribute to Sandhu's significant technological achievements and contributions to the field of information security.

Through his work, Sandhu's efforts have significantly contributed to the advancement of the foundations and practice of information security

through creation, development, and technology transfer of role-based access control (RBAC).

The IEEE Awards Program recognizes Sandhu's commitment to the organization's mission of advancing technology for humanity.

Additionally, Dr. Sandhu also received the IFIP WG 11.3 Outstanding Service and Outstanding Research awards in recognition for his significant contributions to the field of data, applications security, and privacy.

GUBANOV RECEIVES 2017 IEEE ICDE BEST PAPER AWARD



Photo of Dr. Michael Gubanov (left center) and his co-authors receiving their award certificate. Photo courtesy of Dr. Chaitanya Baru, Senior Advisor for Data Science at the National Science Foundation.

Dr. Michael Gubanov received the 2017 IEEE International Conference on Data Engineering (ICDE) Best Paper award for his work in large-scale data analytics together with researchers from Rice University.

The annual IEEE ICDE is known as one of the most prestigious and competitive forums in data management research.

Gubanov describes a novel scalable data analytics system that supports both relational and linear algebras. The system represents not only a fundamental contribution to data management, but it also has many practical applications in business intelligence, healthcare,

cyber security, and other areas. The demonstrated data management engine simplifies development of large-scale analytical workloads that use matrices and vectors in addition to tabular data representation, which is the de-facto standard in relational databases.

Gubanov is a Cloud Technology Endowed assistant professor at The University of Texas at San Antonio Department of Computer Science. His research interests include cloud computing, large-scale data management, web-search, and biomedical informatics.

His other notable research accomplishments include new systems for information extraction from text (while at the University of Washington), data integration (while at IBM Research and M.I.T.), and large-scale machine learning and web-search (while at Google).

Gubanov is a recipient of the 2015 NASHP Young Investigator award, the 2016 IEEE Sensors Best Paper Award, and the 2017 IEEE ICDE Best Paper Award.

UTSA CS PHD STUDENT WINS BEST PAPER AWARD AT IEEE CLOUD 2017



UTSA CS Ph.D. student Ridwan Rashid Noel (right) is presented the best paper award certificate by Steering Committee Chair Liang-Jie Zhang (left).

UTSA Ph.D. student Ridwan Rashid Noel was awarded the Best Paper Award in IEEE Cloud 2017 conference.

His paper, titled "Taming Performance Hotspots In Cloud Storage With Dynamic Load Redistribution," was conducted under the supervision of Dr. Palden Lama, an assistant professor of computer science at UTSA.

In this work, the authors developed improvements to cloud storage performance

through a novel dynamic load redistribution algorithm.

Cloud storage services are increasingly used as cost-effective platforms for storing large-scale enterprise data due to the flexibility, availability, and scalability provided by the underlying object-based storage technology such as OpenStack Swift, Ceph, Amazon S3, etc.

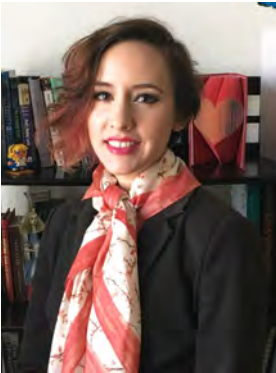
However, on today's cloud services, both fetching and storing content are associated with high latency variance. This can be attributed to performance hotspots created by slow nodes in a heterogeneous storage cluster, and performance interference caused by multi-tenancy as well as background tasks such as data scrubbing, backfilling, recovery, etc.

Under the supervision of Dr. Lama, Noel developed a storage layer adaptation technique for achieving performance assurance even in the presence of multi-tenant interference and hardware heterogeneity. They implemented the developed technique on Ceph, a popular distributed storage system, and evaluated its performance on NSFCloud's Chameleon testbed.

Experimental results showed that DLR improves the average throughput and latency of Ceph storage by up to 65%, and 41% respectively compared to the default case. Compared to Ceph's built-in load balancing technique, DLR improves the throughput by up to 98%, and latency by 96%.

The IEEE CLOUD has been one of the prime international forums for the state of the art and practice of cloud computing. This year, IEEE CLOUD was held in Honolulu, Hawaii.

FROM FINE ARTS TO PROGRAMMING: INTERVIEW WITH SWRI PROGRAMMER ANALYST AND UTSA ALUMNI GABRIELA BOENTGES



UTSA Alumni Gabriela Boentges (B.S. in Computer Science 2014), Programmer Analyst at Southwest Research Institute

For UTSA alumni and graduate student Gabriela Boentges, her educational journey epitomizes the phrase, “If at first you don’t succeed, try again.”

“When I first came to the university, I tried taking CS courses but thought it was too hard and time consuming,” Boentges said. “I was still interested in computers, so I went into graphic design and took drawing classes.”

After earning her Bachelor of Fine Arts in Drawing and Graphic Design from the University of Texas at El Paso in 2008, Boentges moved to San Antonio working as an insurance agent. However, she was still interested in pursuing a more technical career field.

“I met several UTSA students and made the decision to go back to school to try computer science again,” Boentges said. “I was shocked at how much easier it was for me! From structured languages to operating system commands, I understood so much better than the first time I tried years ago.”

Boentges finished her degree in two years and attributes her success to her previous liberal arts education.

“Art requires a lot of analysis—what do I want to portray, what materials do I need, how am I going to present it, and so on,” Boentges said. “I approached computer science with that way of thinking and found it a lot easier to understand.”

Boentges is currently a Programmer Analyst for the Southwest Research Institute (SwRI) in San Antonio, Texas. There, she utilizes both her liberal arts and science degrees to design and develop application projects for the institute.

“I use my Fine Arts degree skills when I work on user interface design,” Boentges explained. “A lot of programmers overlook that aspect of designing applications, but apps need to be pleasant, eye-catching, and easy for the user to understand.”

During her studies at UTSA, she met lecturer Richard Murphy and was encouraged to apply for positions at SWRI.

“Richard saw my potential and opened the door for an opportunity to interview with SWRI,” Boentges said. “I told SWRI during the interview that although I didn’t have experience working with the PHP language. I was a hard worker and willing to learn and they hired me! The rest is history.”

As a Programmer Analyst, Boentges works with a team to design and maintain program applications and databases driven by evaluating client needs. Additionally, her team analyzes programs for optimization, bugs, and security related updates and upgrades.

“One of the challenges to being a Programmer Analyst is that our projects span over many different divisions,” Boentges said. “You have to think of different ways to address diverse requirements while also keeping everyone happy.”

The most common programming Boentges and her team use include Perl, Oracle, CSS, and HTML. Depending on the scope of work, PHP, C, MySQL, and Java languages would be used for certain projects.

If Boentges could give one piece of advice to prospective or current computer science students, it would be “Try as many different courses as you can—psychology, dance, art, anything! If you are always in your comfort zone, you’ll establish a set of patterns that limit your creativity and problem solving skills.”



SOUTHWEST RESEARCH INSTITUTE

Southwest Research Institute

<http://www.swri.org>

NIU, ROBINSON, AND WANG RECEIVE OER GRANT FOR DESIGN OF EBOOK



UTSA computer science faculty Dr. Mark Robinson, Dr. Jianwei Niu, and Dr. Xiaoyin Wang were selected to receive an Open Educational Resources (OER) grant to replace the Software Engineering (CS 3773) textbook with a free, electronic textbook.

The OER initiative seeks to boost college access and completion through the replacement of proprietary textbooks with open educational resources. The short term goal is to reduce costs for students, but the larger impact is to better connect curriculum and pedagogy to updated student learning outcomes.

By utilizing open educational resource system, instructors are encouraged to experiment and find new, innovative, and less costly ways to deliver learning materials to their students.

Robinson and his team are currently restructuring course material to suit the new textbook and expect to implement the new material to classes by Spring 2018.

UTSA PILOTS INTERNSHIP WITH 470TH MILITARY INTELLIGENCE BRIGADE



UTSA Students get one-on-one mentoring from the 470th MI brigade officers as they gain exposure to intelligence operation activities for the Department of Defense.

The 470th Military Intelligence Brigade at Joint Base San Antonio-Fort Sam Houston has partnered with the University of Texas at San Antonio in a pilot internship program for Summer 2017.

Four undergraduate students were selected from UTSA's department of computer science for this pilot internship, including senior Jonathan Jimenez, senior Jonah Waschek, senior Christian Wilson, and senior Wellington Do Vale Rodrigues.

During the summer, students worked alongside a mentor within the Open Source Intelligence section of the brigade. They were exposed to the day-to-day operations and software development of real Department of Defense projects, while also earning six semester credit hours for their internship.

The internship program gives students real-world experience, while allowing the brigade to tap into the knowledge and skill sets offered by the students.

Col. James Royse, 470th MIB commander expressed high hopes for the internship, the first of its kind that's been undertaken by the unit.

"They'll see how their skill sets get operationalized into intelligence operations through the military for national security strategy, national military strategy objectives and in our case, primarily in the U.S. Southern Command area of responsibility," Royse said.

Dr. C. Mauli Agrawal, UTSA interim provost and vice president for academic affairs, thinks the pilot program will give students job experience in the field of cyber security and better prepare them for when they enter the workforce.

"We always look to connect our students with real life experiences as much as possible," Agrawal said. "The more we can engage with real life practitioners, like the military and the private sector, the better it is for our students and for the employers."

Upon completion of the pilot, both UTSA and the brigade hope to offer the internship during every term and be expanded to include students from other fields and disciplines.



Students demonstrate the Engagement Skills Test (EST), a simulator that provides marksmanship training and trains soldiers on virtually all aspects of firearms training from calibrating weapons, to weapons qualification, to collective fire scenarios in numerous environments.

STUDENT SPOTLIGHT: JOSÉ DAVID MIRELES



José David Mireles

José David Mireles will soon become one of the newest graduates to earn a Master of Science (MS) degree from UTSA's Computer Science Department. Mireles earned his bachelor of arts in English, Professional Writing from UTSA in 2009, and returned in 2013 to pursue Computer Science.

Mireles developed his master's thesis under the direction of UTSA professor of computer science Dr. Shouhuai Xu, and conducted

research out of UTSA's Laboratory for Cybersecurity Dynamics.

Mireles was awarded the National Science Foundation's Scholarship for Service in 2014 and a RSA Security Scholar in 2017. His research interests include cyber attack and defense, big data analytics of malicious network traffic, and the extraction and attribution of attack signatures from network traffic. His MS thesis, titled "Modeling and

Analyzing Cyber Adaptations and Attack Narratives," was presented and successfully defended this summer 2017.

Academic accomplishments aside, Mireles takes great pride in being the first in his family to earn a bachelors degree, let alone a masters.

"My grandfather, Alfredo Mireles, has been a driving force in my life to help me achieve my goals," Mireles said. "He worked as a ranch hand and [only] had an elementary school education, but he taught me that there are no limitations with hard work."

During his graduate studies, Mireles was an active member of UTSA's Computer Security Association. He captained various student cybersecurity competitions such as the National Collegiate Cyber Defense Competition, Inter-Collegiate Penetration Testing Competition, National Cyber Analyst Challenge, and Panopoly.

After graduation, Mireles plans on working for the U.S. Army as a cyber security professional.



Featured Job Opportunities!

#	Employer	Job Title	Type	Application Deadline	How to Apply
1	Kumon Math and Reading Center of De Zavala, San Antonio	Grader	Part Time	September 22nd at 7:25 am	Apply via UTSA Handshake
2	Southwest Research Institute (SwRI)	Analyst - Engineer - Research Engineer--Embedded Systems		September 22nd at 11:59 pm	Apply via UTSA Handshake
3	Girlstart	Girlstart STEM CREW Intern	Part Time Internship	September 24th at 1:00 pm	Apply via UTSA Handshake
4	Office of Congressman Lamar Smith	Spring 2018 Internship	Part Time Internship	October 2nd at 7:00 am	Apply via UTSA Handshake
5	Pacific Northwest National Laboratory	Science Undergraduate Laboratory Internship (SULI) Spring 2018	Internship	October 2nd at 4:00 pm	Apply via UTSA Handshake
6	EY LLP	EY Advisory Services - Risk - Cyber Threat Management Intern	Internship	October 12th at 11:59 pm	<ol style="list-style-type: none"> 1. You must first apply using your school's online recruiting system for only one of our positions 2. You must apply through our online system at www.ey.com/us/apply. 3. You must complete our Recruiting Candidate Preferences Form: ey.recsolucampus.com/candidatepreferenceform.php?formId=aGNqZ0%3D%3D
7	780th Military Intelligence Brigade	Cyber Operations / Cyber Analyst	Full Time	December 31st at 10:55 pm	Apply via UTSA Handshake

VISIT UTSA'S CAREEREDGE WEBSITE

<http://careercenter.utsa.edu/>

FOR MORE GREAT OPPORTUNITIES LIKE THESE!!!

Upcoming Computer Science Events Fall 2017

STEM Career Fair

Sep 19th, 8:30am-11:30am - University Center Ballroom

UTSA College of Science Research Conference

Fri Oct 6th, 8:00am-4:00pm - HEB University Center

Career Development Session #4: Employers and You

Fri Oct 6th, 3:00pm-4:30pm - NPB 1.226

CS Posters and Cookies

Fri Nov 3rd, 3:00pm-5:00pm, CS Department - NPB 2nd Floor

Career Development Session #5: Mock Interviews

Register at utsa.joinhandshake.com

Fri Nov 10th, 3:00pm-4:30pm in Mesquite Room - UC 2.01.24



Have Questions?
 Story Ideas?
 Photos?

Email the editor at
cs@utsa.edu



Kimberly Ward