CFIC@SHSU

Sam Houston State University

Cyber Forensics Intelligence Center Newsletter

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HIGHLIGHTS

- The CFIC is actively submitting grants to a variety of funding agencies.
- The Digital Forensics Information Intelligence (DFII) Research group presentation schedule is available on the CFIC web site.
- Dr. Wei and Dr. Glisson from SHSU's Department of Computer Science will will be speaking in September at the DFII talks.
- The Computer Science Department welcomes our new visiting professor, Dr. Mohamed Baza.
- The CFIC is recruiting for SHSU's National Collegiate Cyber Defense Competition (CCDC) team this year.

DIRECTOR'S MESSAGE

The start of the fall term is exciting and exhilarating. In collaboration with faculty from the Department of Computer Science (DCS) and Engineering Technology, we have recently submitted five grants to various funding agencies. Cybersecurity and Cyber Forensics present problems and opportunities that transcend multiple disciplines. Coupling transcendence with shortages for qualified individuals creates opportunities for the CFIC to enable industry productivity. The CFIC facilitates industry productivity thorough managed industry internships, pursuing national recognition for cybersecurity programs, enabling research faculty and industry collaborations, and assisting with cutting-edge grant applications that strive to address real-world issues.

Students interested in being a member of SHSU's National Collegiate Cyber Defense Competition (CCDC) team this year are urged to reach out to the CFIC and let us know. We will be advertising a zoom meeting for interested participants in the coming weeks. Equally, we welcome industry participation and training advice. If you would like to share your expertise with SHSU's CCDC team, please contact the CFIC.

DR. MINGKUI WEI

Dr. Mingkui Wei is a Assistant Professor in the Department of Computer Science here at Sam Houston State University since September 2016. He is also a scholar endorsed by the Cyber Forensics Intelligence Center. His current research interests lie in Internet and Web Application security, and leveraging advanced computer science technologies to help law enforcement agencies to achieve more efficient crime scene investigations. Dr. Wei has conducted researches, funded by the Pilot Studies for Future Funding Program of the Office of Research and Sponsored Programs at SHSU, that identified serious security vulnerabilities on tens of thousands of websites world wide.

The vulnerability he identified has been recognized and endorsed by the CERT Coordination Center hosted by Carnegie Mellon University. He is currently preparing multiple papers toward the top tier international cybersecurity conferences. For the latter, Dr. Wei is collaborating with a professor in the Forensic Science department of SHSU, as well as the R&D department at Houston Forensic Science Center, and proposing to develop a smart photography application that can facilitate latent print image collection for crime scene investigators. His preliminary work has been supported by the Faculty And Student Team (FAST) award from the Enhancing Undergraduate Research Experiences and Creative Activities (EURECA) center, SHSU, where he lead three undergraduates conducted related research work. Their work has been accepted to and presented at the annual meeting of American Academy of Forensic Science, one of the oldest and most prestigious Forensic Science community in North America.

DFII September and October Research Lineup

09/07/2020: *Labor Day Holiday- No meeting*

09/14/2020: Dr. Wei
Sam Houston State University (SHSU)
Web Cache Poisoning Attack

9/21/2020: Dr. Brad Glisson
Sam Houston State University (SHSU)
The Impact of Residual Data on Society

09/28/2020: *Research Day- No meeting*

10/05/2020: Daniel Miller
School of Computing Doctoral candidate
University of South Alabama (USA)
Forensically Analyzing 3D Printers

10/12/2020: Dr. Rasheed
Sam Houston State University (SHSU)
Data Privacy and Authentication for Industrial Control System and IoT

10/19/2020: Marc Crudgington
CISO; SVP Information Security, Woodforest National Bank
The Role of Forensics in Incident Response

10/26/2020: Andy Bennett
Vice President of Technology, CISO at Apollo Information Systems; former State of Texas Deputy CISO
Hot Topics that students and researchers should know about

DR. BRAD GLISSON

Dr. Glisson is the Director of the Cyber Forensics Intelligence Center and an Associate Professor in the Department of Computer Science at SHSU. He has a Ph.D. in Computing Science from the University of Glasgow, Scotland, 2008, a Master of Science in Information Management from the University of Strathclyde, Scotland, 2001, Bachelor of Science in Information Systems & Operations Management from the University of North Carolina at Greensboro, 1999. He served as the Director of the Computer Forensics MSc program at the University of Glasgow from 2008 to 2013.

Dr. Glisson has graduated 15 Master's students as the chair of their committees. He has served on an additional 14 committees for MSc students. On the doctoral level, he has a graduated doctoral student and currently serves on several thesis committees. He has over 70 peer-reviewed publications related to residual data and digital forensics. Google Scholar is reporting Dr. Glisson's citation count at 1,241, with an h-index of 18 and an i10-index of 31.

Dr. Glisson has ten years of industrial experience, which includes working for U.S. and U.K. Global Fortune 500 financial institutions. Dr. Glisson has shared in $1.96 million in NSF grant funding that investigates residual data, security, and digital forensics research. His research interest includes digital forensics, information assurance, software engineering, and applied computing science. He builds on previous administrative and teaching experiences to teach and improve research relevant real-world residual data issues.

DR. MOHAMED BAZA

Mohamed Baza is currently a visiting assistant professor at the department of computer science at Sam Houston state university. He defended and earned his PhD degree in July 2020 from Tennessee Technological university, Cookeville, TN. He received the B.S. and M.S. degrees in Electrical & Computer Engineering from Benha University, Egypt in 2012 and 2017, respectively. His research interests include many topics of immediate interest in the area of cybersecurity, including blockchains, machine learning, and security and privacy in emergent technologies such as smart grids and VANETs.

He has over fifteen papers in IEEE conference proceedings and top ranked journals such as IEEE Transactions on Dependable and Secure Computing, IEEE Transactions on Network Science and Engineering, IEEE Transactions on Vehicular Technology (TVT). He has collaborated with more than twelve faculty members who work in schools inside and outside the USA to produce high-quality publications. He also has one best paper award in IEEE SmartNets 2019. Also, he has supervised two Msc and five Research Experiences for Undergraduates (REUs). He is also an active reviewer in several top IEEE Transactions/Magazines. Before starting his Ph.D., he also worked for more than two years as an information security engineer in Apache-khalda petroleum company, Egypt. In industry, he has a great opportunity to get hands-on experience in implementing network security on cisco routers/switches, FortiGate firewalls, IBM SIEM solutions as well as Kaspersky antivirus.

Partnerships

Internship Program

Organizations partner with the Center to provide on-site internship experiences to students enrolled in the Department of Computer Science at SHSU to assist in workforce development.

*Check the CFIC Web Site for Opportunities

Capstone Project

Provides students with the opportunity to interact with industry while simultaneously introducing them to practical research. These projects are conducted in conjunction with industrial partners at no cost to the organization.

Seminar Presentations

Industrial partners are invited to make presentations during the fall and spring semesters on challenges that they face from cybersecurity, digital forensics, and information assurance perspectives.

CONTACT THE CFIC

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CFIC MISSION

To conduct world-class, leading cyber forensics and security research, provide real-world training solutions, investigate cutting edge cyber forensic investigation resources; promote professional networking; and participate in open data exchanges.

GOALS

To bring together leading industry participants, practitioners, and faculty members from a variety of disciplines to research cyber forensic and digital security topics that are of interest to governmental, commercial and legal communities in order to:

- Deliver innovative, avant-garde, pioneering research expertise in security and forensics that solves real-world problems
- Partner with governmental, commercial, and legal communities to improve workforce education through world-class training programs
- Provide state-of-the-art research facilities, equipment, and training that empowers faculty to pursue substantial research funding
- Deliver to governmental, commercial, and legal communities a collaborative operational and investigative ecosystem for identifying and resolving cyber forensics and security challenges

Directions

I-45, Huntsville, TX 77340 to Avenue I, Huntsville, TX 77340

1. Depart I-45, Huntsville, TX 77340
2. Turn East onto US-190 [SR-30] for 1.1 miles.
3. Turn Right(South) onto SR-75 [N. Sam Houston Ave] for 0.4 miles.
4. Turn Left(East) onto 16th St. for 0.2 miles.
5. Turn Right(South) onto Avenue I for 0.1 miles.
6. Arrive Avenue I.
The Cyber Forensics Intelligence Center is located in AB1 Room 208

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