February 2021, VOLUME 3 ISSUE 2

CFIC@SHSU

Sam Houston State University

Cyber Forensics Intelligence Center Newsletter

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HIGHLIGHTS

- Congratulations to the CFIC CCDC team for making it through the qualifiers and proceeding to the Regional competition! Well done team!
- The speakers in the February and March Digital Forensics Intelligence (DFI) Research group meetings include Mr. Kumar and Dr. Hwang.
- The CFIC is starting an Enhanced Reality and Spatial Computing (ERSC) Working Group
- The DFI research group presentation schedule is available on the CFIC website.

DIRECTOR'S MESSAGE

Extreme weather, the pandemic, and escalating economic pressures increasingly encourage companies to invest in their information technology infrastructure. This increasing dependency on technology initiates interest in cybersecurity and cyber forensics investigation activities, mitigation strategies, and technical solutions.

This technological evolution is driving interest in enhancing reality topics. To help investigate the development, security, and investigation issues associated with enhanced reality environments, the CFIC is starting a working group on Enhanced Reality and Spatial Computing (ERSC) to help students at all levels investigate research ideas in this area.

We want to congratulate our CCDC team for making it to regionals! If you would like to get involved with future CCDC competitions or the ERSC working group, please reach out to the CFIC.

DFI Seminar Schedule February and March

02/08/2021: Avinash Kumar
Doctoral Student: Sam Houston State University
Network Attack Detection Using an Unsupervised Machine Learning Algorithm

02/15/2021: SHSU Closed Due to Winter Storm

02/22/2021: Dr. Hwang
Web Services Librarian/Assistant Prof
Sam Houston State University (SHSU)
SHSU Library Resources and Research Tips

03/01/2021: Selim Ozcan
Doctoral Student: Sam Houston State University
Centrality and Scalability Analysis on Distributed Graph of Large-Scale E-mail Dataset for Digital Forensics

03/08/2021: Ahmet Ayogdan
Doctoral Student: Sam Houston State University
Employing a Continuous Measurement Process During Digital Tool Validation

03/15/2021: *No speaker: SHSU Spring Break*

03/22/2021: Furkan Paligu
Doctoral Student: Sam Houston State University
Browser Forensic Investigations of WhatsApp Web Utilizing IndexedDB Persistent Storage

03/29/2021: Ashar Neyaz
Doctoral Candidate: Sam Houston State University
DD Imaging and How to Forensically Acquire Image from a Rooted Android Phone Using DD Tool

DFI Seminar Speaker: Avinash Kumar

Mr. Avinash Kumar received his B.E. degree in Information Technology from Orissa Engineering College in 2011 and the M.S. degree in Computer Science and Engineering from Sam Houston State University in 2015.

He is currently a Ph.D. candidate in the Department of Computer Science at Sam Houston State University, Huntsville, TX. His research interests include Network Forensics, Machine Learning, AI, Big data, Digital Forensics, and Deep Neural Networks.

He worked at Mindfire Solutions in India as a Software Engineer from 2011 to 2013, where he created different e-commerce web applications.

He is also working in the Police Research Center at the College of Criminal Justice as a programmer analyst, where he develops web-based applications for Law Enforcement Agencies.

He was a programming teaching assistant for two years during his master's degree and is currently an instructor for the programming fundamentals course while receiving very favorable student reviews.

DFI Seminar Speaker: Dr. Hwang

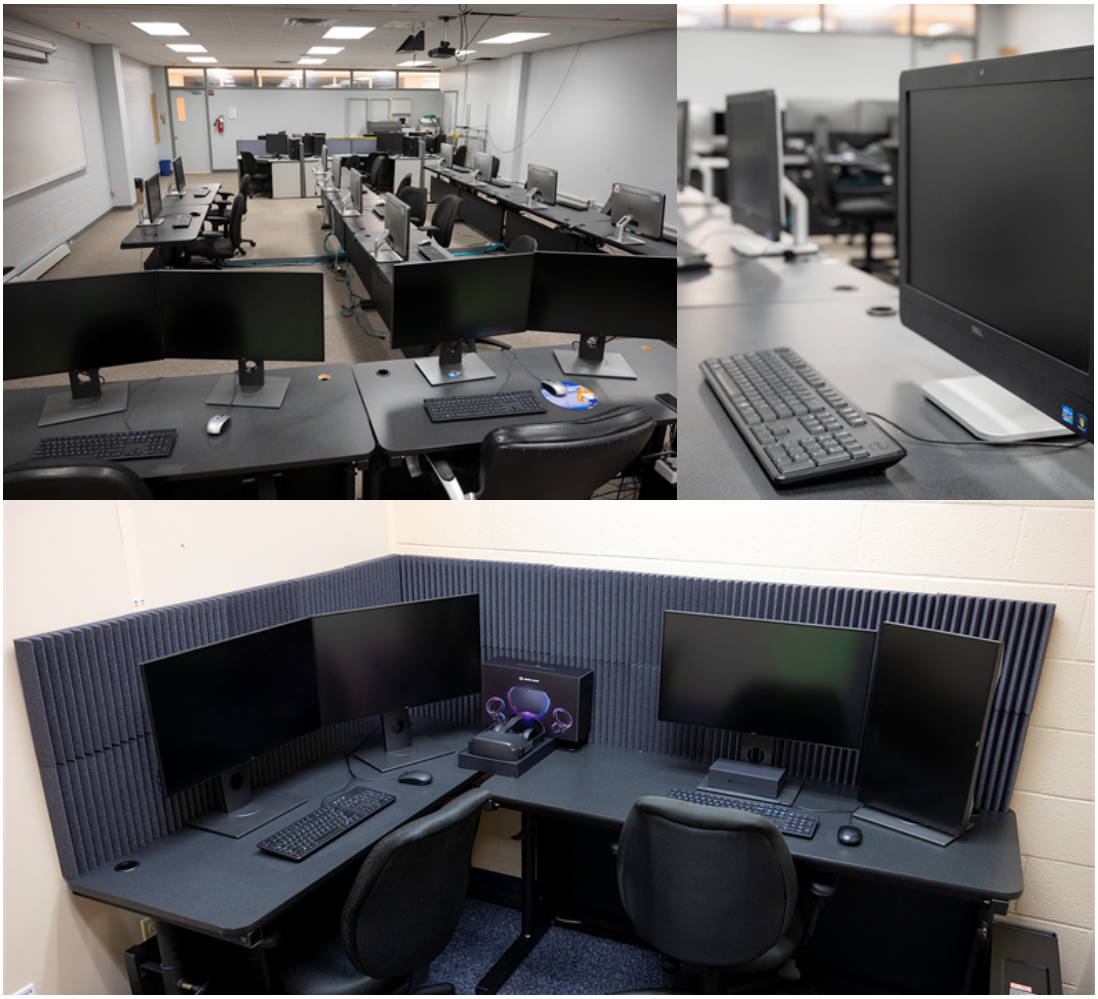
Soo-yeon Hwang is the Web Services Librarian and Assistant Professor at Sam Houston State University. She has a Ph.D. in Communication and Information from Rutgers University, and M.S. in Information from the University of Michigan, Ann Arbor. She has professional experience in software development, technical writing, QA, and technical support. She first learned computer programming at nine years old, starting with Basic on MSX computer.

At SHSU's Newton Gresham Library, she develops and manages the Library's website and other web-based services; evaluates and assesses the Library's online content in order to improve user experience; teaches library information and research sessions and provides research assistance; and performs collection development and curriculum reviews for the Computer Science department.

Her research interests include time use with information, everyday use and social implications of information and communication technology, information system design, usability and user experience, and technology policy. She has published peer-reviewed journal articles and a book chapter, and is a regular contributor to the Tech Talk column at Informed Librarian Online. She is an editorial board member of Information Technology and Libraries (ITAL), an American Library Association journal, and had been an advisor to the editorial board of Weave: Journal of Library User Experience.

She currently serves as a member of the SHSU Faculty Senate

Enhanced Reality & Spatial Computing (ERSC) Working Group



The Enhanced Reality & Spatial Computing (ERSC) Working Group focuses on investigates the application of enhanced reality solutions such as Immersive VR, Augmented Reality, and Mixed Reality solutions to solve real-world special computing problems.

For the working group, spatial computing is broadly considered as the calculation of physical space as input to and output from a computer for human interaction with a virtual object and manipulation of that object in an enhanced reality environment.

There are lots of research opportunities in this area!

If you are interested in getting involved with the ERSC working group, please contact the CFIC.

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

Please follow us @

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