DIGITAL FORENSICS INFORMATION INTELLIGENCE RESEARCHGROUP

**Every Thursday
4:00—5:00 p.m.
Shelby Hall Rm 3104**

SYSTEMS PROTECTION AND EXPLOITATION RESEARCH GROUP (SPERG)

**Every Friday 10 – 11 a.m.
@Shelby Hall Rm 2327
www.soc.southalabama.edu/sperg/**

PARTNER SCHOOL PROGRAM

Contact Keith Lynn at 251-460-7643. For scheduling HOLLA click on the link below.

Schedule HOLLA

Quote of the Month

"We all need people who will give us feedback. That's how we improve"

Bill Gates, Co-Chairman, Bill & Melinda Gates Foundation and Co-Founder, Microsoft

CFITS LECTURE SERIES

Wednesday Lecture and Network Forum

CFITS Lecture resume September

Faculty Profile
Dr. Scott Sittig

Assistant Professor, Health Informatics
University of South Alabama
Phone: 251-461-7576
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Shelby Hall, Room 1211

Dr. Sittig is an Assistant Professor in the Department of Information Systems and Technology within the School of Computing at the University of South Alabama. He earned his PhD in Biomedical Informatics in 2017 from the University of Texas Health Science Center, School of Biomedical Informatics in Houston. His dissertation titled, "Integrating Behavioral Trigger Messages into a mHealth system Design for Chronic Disease" focused on developing an mHealth application to improve self-efficacy, knowledge and self-care for individuals with type II diabetes. In addition, he earned his master's degree in health informatics from Louisiana Tech University and a Bachelor of Science degree in health information management from the University of Louisiana at Lafayette. His current research interests include developing behavioral trigger messages to cue user to take action in an attempt to provide sustainable behavioral change, developing and implementing applied health informatics methods/tools through persuasive technology to advance consumer health informatics, patient engagement and chronic disease management. Dr. Sittig also chairs the Obesity Research Network at the University of South Alabama where a multidisciplinary team of academicians meet each week in an effort to improve obesity management leveraging health informatics tools (i.e. wearable, mHealth).

CFITS

May 2019

Research Spotlight

Mapping Common Data Elements to a Domain Using an Artificial Neural Network

School of Computing doctoral student Shengyu Li, along with Drs. Jingshan Huang and Glen M. Borchert, co-authored a scholarly paper entitled "Mapping Common Data Elements to a Domain Model Using an Artificial Neural Network." The peer-reviewed paper was presented by Huang this past November at the 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018) in Madrid, Spain. The co-authors developed a semi-automated algorithm to map ISO 11179 Common Data Elements (CDEs) to likely Biomedical Research Integrated Domain Group (BRIDG) classes. First, they extended and improved a previously developed artificial neural network (ANN) alignment algorithm. They then used a collection of 1,284 CDEs mapped to BRIDG classes as the gold standard to train and obtain the appropriate weights of six CDE attributes. Finally, they recommended a list of candidates BRIDG classes to which the CDE of interest may belong. Testing has proven the effectiveness and efficiency of the proposed methodology in mapping CDEs to BRIDG classes. The study's contribution lies in it providing an excellent tool to facilitate the mapping from cancer CDEs to the BRIDG model, and then from BRIDG to other standards. The ongoing work is part of Li's dissertation at the University of South Alabama's School of Computing.

Citation: R. Renner, S. Li, Y. Huang, S. Tan, D. Li, A. van der Zijp-Tan, R. Benton, G.M. Borchert, J. Huang*, and G. Jiang*, "Mapping common data elements to a domain model using an artificial neural network," Proc. 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-18), pp. 1532-1535, Madrid, Spain, Nov. 2018.

School of Computing Events

Wednesday, May 1	**Final Exams**
Thursday, May 2	**Final Exams**
Friday, May 3	**SoC Graduate Reception- Room-2119/ Atrium**
Saturday, May 4	**Commencement**
Friday, May 10	**Faculty deadline to report previous month's leave through PAWS**
Tuesday, May 28	**Transfer Orientation**
Thursday, May 23	**Gen Cyber Camp, Room-2121**
Friday, May 31	**Gen Cyber Camp, Room-2121**