

## 2021 National Symposium for NSF REU Research in Data Science, Systems, and Security (REU 2021 Symposium)

**December 15, 2021**

Symposium Website: <https://biadatasci.usmbc.edu/reu-symposium>

Program Chairs:

- [Dr. Jianxi Wang](#), University of Maryland, Baltimore County, Organizer of [the NSF REU Site on Online Interdisciplinary Big Data Analytics in Science and Engineering](#)
- [Dr. Matthias K. Gobbert](#), University of Maryland, Baltimore County, Co-organizer of [the NSF REU Site on Online Interdisciplinary Big Data Analytics in Science and Engineering](#)
- [Dr. Nirmalya Roy](#), University of Maryland, Baltimore County, Organizer of [the NSF REU Site on Smart Computing and Communications](#)
- [Dr. Fusheng Wang](#), Stony Brook University, Organizer of [the NSF REU on Big Data, AI and Medical Informatics](#)

Time (ET)	Title	Presenter/Author
<b>Session 1 (Data Science)</b>		
9:00-9:20	SP06209: Drug-Drug Interaction Prediction: a Purely SMILES Based Approach	Bri Bumgardner, Farhan Tanvir, Khaled Mohammed Saifuddin, and Esra Akbas
9:40-10:00	SP06214: Promising Hyperparameter Configurations for Deep Fully Connected Neural Networks to Improve Image Reconstruction in Proton Radiotherapy	Sokhna York, Alina Ali, David Lashbrooke, Rodrigo Yopez-Lopez, Carlos Barajas, Matthias Gobbert, and Jeremy Polf
10:00-10:20	SP06207: Convolutional Neural Network Optimization for Phishing Email Classification	Cameron McGinley and Sergio Salinas Monroy
10:20-10:40	SP06205: Overhead Projection Approach For Multi-Camera Vehicle Activity Recognition	George Strauch, JiaJian Lin, and Jelena Tesic
<b>Coffee Break</b>		
<b>Session 2 (Systems)</b>		
11:00-11:20	SP06213: 3D Modeling of Cities for Virtual Environments	Calvin Davis, Jaired Collins, Emily Lattanzio, Joshua Fraser, Shizeng Yao, Haoxiang Zhang, Bimal Balakrishnan, Ye Duan, Prasad Calyam, and Kannappan Palaniappan
11:20-11:40	SP06211: Woolery: Extending Frame Semantics to Structured Documents	Chloe Eggleston and Jeremy Abramson
11:40-12:00	SP06206: Creation of EMA-KN – A Knowledge Network for Ecological Momentary Assessment	Cade Winters, Justin Ebby Varghese, George Stafford, Fengxiang Zhao, Songxi Chen, and Yi Shang
12:00-12:20	SP06202: Visualizing Internet Measurements of Covid-19 Work-from-Home	Erica Stutz, Yuri Pradkin, Xiao Song, and John Heidemann
<b>Coffee Break</b>		
<b>Session 3 (Security)</b>		
12:40-13:00	SP06208: Investigating the Changes in Software Metrics after Vulnerability is Fixed	Andy Zhou, Kazi Zakia Sultana, and Bharath Samanthula
13:00-13:20	SP06203: Identifying ATT&CK Tactics in Android Malware Control Flow Graph Through Graph Representation Learning and Interpretability	Jeffrey Fairbanks, Andres Orbe, Christine Patterson, Janet Layne, Edoardo Serra, and Marion Scheepers
13:20-13:40	SP06212: Private Blockchain for Visitor Authentication and Access Control	Ka Ying Chan, Mason Lovett, and Yesem Kurt Peker
13:40-14:00	SP06204: A Scalable and Domain Adaptive Respiratory Symptoms Detection Framework using Earables	Nhan Nguyen, Avijoy Chakma, and Nirmalya Roy
14:00-14:20	SP06210: A Fine-grain Geospatial and Demographic Analysis of Breast Cancer Patterns in New York State	Fiona Murphy, Kayley Abell-Hart, and Fusheng Wang
<b>Closing Remarks</b>		