

Sabrina Perry



Mentor 1: Izzat Alsmadi

Mentor 2: Fernando Posada

Home Institution: Mississippi Valley State University

Target Course: Intro to CyberSecurity

Target Course Number:CS423

Anticipated Enrollment: 15-20

Poster title: Incorporating HPC Curriculum for Enhancement for Intro to Cybersecurity

Project Goals:

- To introduce basic Concepts of Cybersecurity and HPC into the course. (*fundamental cybersecurity concepts that would include: threats, cryptography, etc)
- Create practical lab exercises that will give students hands-on experience using basic tools to speed up cybersecurity tasks, like running programs on multiple computers at once and using cloud services to analyze small datasets. (*how fun would this be)
- Create practical lab exercises that demonstrate how HPC can be applied to accelerate cryptographic algorithms and machine learning models for cybersecurity.(*how can we implement and execute basic encryption algorithm or machine learning for threat detection. (*what tools can I locate with HPC)
- Find datasets relevant to cybersecurity