

Sabrina Perry



Mentor 1: Izzat Alsmadi, Texas A&M University

Mentor 2: John Holmen, Oak Ridge National Lab

Home Institution: Austin Peay State University

Target Course: Introduction to Programming I

Target Course Number: CSCI1010

Anticipated Enrollment: 35

Science Gateways Resource Needs/Questions:

- *Need: A student-friendly HPC environment where first year Java students can run small programs and see how performance changes with scale.*
- *Question: Are there any existing modules that integrate HPC concepts into intro programming courses?*
- *Need: Lightweight materials that can be adapted for freshman to illustrate parallel programming and supercomputing concepts.*

Project Goals:

- *Goal 1: Improve Intro to Programming with HPC Perspectives*
- *Goal 2: Incorporate Generative AI for Learning Support*
- *Goal 3: Introduce Parallelism Concepts*
- *Goal 4: Connect to Supercomputing*
- *Science Gateway Goal: Use classroom-friendly Gateway resources (Jetstream2, Cornell Virtual Workshop, HPC Carpentry) to experience computing beyond the desktop*

<https://hackhpc.github.io/facultyhack-gateways25>