

Janel Tamara Brown Senior

Winston-Salem State University

Major: Computer Science

Minor: Mathematics

Faculty Advisor: Dr. Elva Jones

Program: Research Alliance in Math &

Science

Email: 5b8@ornl.gov

Home: jbrow680@wssu.edu

Research Area: Computational Sciences and Engineering

Spatial data is a core component of a GIS (Geographic Information System). The purpose is to demonstrate computational procedures of collecting data from databases to support the estimation of the population for ports and service providers. The aim of this project is to collect various databases to determine population estimate for each 362 ports (such as LandScan USA, Transportation Security Administration (TSA), US Census data, land use and transportation data).

Specific subtasks:

- 1. Provide resources to obtain facility names, geographic locations, and x, y coordinates using ARCView
- 2. Develop an ARCView GIS database using data from all 362 ports

Research Mentors:

Budhendra Bhaduri, Ph.D Phone: (865) 241-9272 Email: bhaduribl@ornl.gov Mark A. Tuttle (865) 241-4150 tuttlema@ornl.gov Phil Coleman (865) 574-5393 colemanpr@ornl.gov

Computational Sciences and Engineering Division
Oak Ridge National Laboratory