



**Jonathan C. Rann**

Senior

Winston-Salem State University

1<sup>st</sup> Major: Computer Science

2<sup>nd</sup> Major: Mathematics

Faculty Advisor:

Dr. Elva Jones

Program:

Research Alliance in Math & Science

Email: [xr6@ornl.gov](mailto:xr6@ornl.gov)

Home: [jrann032@wssu.edu](mailto:jrann032@wssu.edu)

Research Area: Mathematics and Computational Sciences

Biologists have used computers for many years to better understand the secrets behind various life processes. The computer applications used for such studies are quite useful, but as the demand for these particular tools grow, so does the necessity for these applications to be highly efficient (especially when handling large data). My goals, in accordance to my area of research, include the following:

1. Learn to use

- Computational Biology applications
- Performance analysis and improvement tools

2. Use new found knowledge to

- Analyze and assess the performance efficiency of different biology applications on different systems
- Optimize the efficiency of chosen applications to increase the productivity of its prospective users

**Research Mentor**

Dr. Pratul Agarwal

Computer Science and Mathematics Division

Oak Ridge National Laboratory

[agarwalpk@ornl.gov](mailto:agarwalpk@ornl.gov)

(865) 574-7184