My name is Ke'Darius Whitley and I am a senior Computer Science student at Winston-Salem State University (WSSU) located in Winston-Salem, North Carolina. I did not know what major I wanted to pursue in college coming out of high school. While in high school I took basic computer classes, so I knew I wanted to major in something dealing with computers. My freshmen year at WSSU I was considering management information systems (MIS) major and I was taking a few classes that corresponded with computer science. My sophomore year of college I took my first programming course, I struggled but I knew I wanted to progress within the major. Dr. Rebecca Caldwell inspired me to expand my knowledge in computer science and to enhance my skills so I changed my major.

While attending Winston-Salem State University to receive my Bachelor of Science in Computer Science, I am taking classes towards my degree. Within the computer science department fall 2017, I plan to join the Cloud Computing Science Department in the fall of 2017.Cloud computing is the practice of using a network of remote servers hosted on the internet to store, manage, and process data, rather than a local server or a personal computer. My goal is to become diverse in computer science skills so I can acquire as much knowledge about different fields within the major.

During the summer of 2017 I attended the Science Gateways Coding Institute (SGCI) at Elizabeth City State University, located in Elizabeth City, North Carolina. The program was led by Dr. Linda Hayden, the director of the Center of Excellence in Remote Sensing Education and Research (CERSER) at Elizabeth City State University. This is a four-week program that focused on gateway development for undergraduate students. The workshop covered the core skills needed to be productive in design and maintenance of science gateways. The program was presented as short tutorials alternated with practical exercises, and all instruction was done via live coding. Within the program I had the opportunity to learn Python, Unix Shell/Git, R-programming, configuring computers, etc. Later that summer, I attended the Practice & Experience in Advance Research Computing Conference(PEARC) in New Orleans, Louisiana. The objective of the conference was for those who manage, develop, and use advanced research computing throughout the nation and the world: sustainability of the infrastructure environment; measuring and ensuring success for organizations that provide and use advanced research computing, and impact of the technologies on the workforce and on science and scholarship.

During the summer of 2018 I had the opportunity to be a summer research intern at Texas Advanced Computing Center (TACC), located in Austin, Texas. This is a nine-week program that focused on gateway development for undergraduate students. As a summer intern at TACC my mentor for the REU program was DR. Joe Stubbs who leads the Cloud and Interactive Computing (CIC) group, which focuses on building cloud native applications and infrastructure for computational science. While working under Dr. Stubbs I had two major objectives this summer, the first one was python systems programming to do development on the API itself. The technologies that I had to familiarize myself with were Python, flask JSON, queues, and

Docker. In addition, to help gasp a good understand of my first objective I attended a workshop at TACC that went over the concept of Docker, because it was the main foundation of my research during the first half. The second objective was JavaScript front-end application programming, where I worked on web interfaces/tooling on top of the API. Majority of my front-end development for the second objective took place in Pycharm which is a development tool that supports Python.

My goal is to graduate from Winston-Salem State University with a Bachelor's Degree in Computer Science. Then I want to further my education to obtain my Master's Degree in Software Engineering. I am aiming to develop better critical thinking and programming principles to assist me in applying the principles of software engineering to the design, development, maintenance, testing, and evaluate the software and systems that make computers or component containing software work.