

Hello, my name is Taeyonn Reynolds and I am from Virginia Beach, Virginia. I am currently attending Elizabeth City State University (ECSU) as a senior where I am pursuing a degree in Computer Science.

I have always had an enthusiasm for learning computer science and that contributed to me choosing that to be my major. Majoring in computer science has allowed me to get involved in intensive research that will relate directly to my future career. Subsequently when I decided to attend Elizabeth City State University, I found that the Center of Excellence in Remote Sensing Education and Research (CERSER) had an excellent program to offer. The program provides you with excellent training in many programs that are then applied in a research project.

During my freshman year with CERSER, I participated in a research project with my fellow classmates. The title of the project was “Using Tensorflow to Detect Objects in an Image”. In this project, we explored the development, implementation, and evaluation of a machine learning algorithm, specifically a neural network, to automate the detection of ships to track traffic in a desired port or region. We also used a graphical approach to computation using TensorFlow, which offers easy massive parallelization and deployment to the cloud. The final result is an algorithm, which is capable of receiving images from various sources of imagery at various resolutions and be able to identify the appropriate objects within the image.

Over the spring of 2019 I completed a research project under Malcom LeCompte studying Landsat Image Analysis of the Hiawatha Crater. Utilizing the software packages MultiSpec and ENVI for the accomplishment of analyzing the area encompassing the Hiawatha Crater as well as its surroundings. The two software's were needed to examine hyperspectral and multispectral images so they can be differentiated by years. ENVI was the most utilized due to the software allowing arithmetic operations of different images for a single rendering, linking images to one another, and the use of different mathematical functions to enhance images.

To further my skills, I attended Indiana University Bloomington during the summer of 2019 where I participated in an undergraduate research experience. Under the mentorship of Andy Somogyi and Gregor von Laszewski I worked to improve the build and deployment process of the Systems Biology Markup Language (SBML) solver. The SBML solver is ready to run both as a part inside different instruments by means of its C++ and C ties, and intuitively through its Python interface. The documentation of the software build was created to successfully run on Linux, Windows and Mac OS X. The SBML solver speed and efficiency will enable analysts to illuminate enormous models, incorporate models implanted in multi-scale frameworks and run huge outfits of smaller models.

This past summer I was able to attend North Carolina Agricultural and Technical State University completing a research experience for undergraduates internship. My research was

conducted to the Surveillance of COVID-19 Pandemic using Social Media and NLP. Studying under Dr. Mohd Anwar, I was able to use multiple techniques to process the raw data we collected from Reddit. For example, using word embedding and cosine similarity, named entity recognition and topic modeling we were able to produce accurate results regarding the pandemic.

During my time at Elizabeth City State University, I am pursuing my Bachelor's Degree in Computer Science in order to enter a master's program. To do this I will need to maintain good grades and participate in internships throughout my years.