

Hello, my name is Taeyonn Reynolds and I am from Virginia Beach, Virginia. I am currently attending Elizabeth City State University (ECSU) as a sophomore 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 will allow 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 Center of Excellence in Remote Sensing Education and Research I participated in a research project with my fellow classmates. We used the program Tensorflow to detect objects in an image. Tensorflow is an open source software library for high performance numerical computation. Its flexible architecture allows easy deployment of computation across a variety of platforms. Through our research we created a program that was capable of detecting a numerous amount of objects in a photo.

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 summer of 2019, I attended Indiana University Bloomington 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.

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.