Over the course of my education, I’ve been able to create an adequate amount of skillsets from my classes and experiences. These skills will help contribute to my overall goal of attaining financial stability and becoming a software developer. NSU has provided a good amount of exposure to several programming languages including C++, Java, and Unix. While I have not had to chance to apply them to any internships or large projects, I have excelled in each course individually, receiving A’s and B’s in the classes associated with them. These courses have created a strong foundation to build upon as I continue to learn and develop as a cs programmer.

I’ve had the opportunity to independently learn the basics of python in my Survey of Programming Languages course. It was one of the programming assignments I fondly remember that helped me involve myself in independently making a program by testing our knowledge upon creating functions in a programming language. I found myself creating a game of rock-paper-scissors in python. This felt like a perfect project to showcase what I had learned about the language and reflect a bit on my passion for games. There were a few hitches throughout the development process. Including struggling with getting the functions to edit their own variables. For a while after spending quite a few hours making ASCII art to simulate hands for both the CPU and the user; ensuring they both displayed correctly. Even despite the constant technical errors, it remains one of my favorite programming assignments because of the freedom I had to make it my own and explore the capabilities of the language on my own time.

Following my previous experience with Survey of Programming Language course. I was then given another opportunity to do research work outside of my intended field of study through the Center for Undergraduate Research in Mathematics (CURM). It is a group based primarily on mathematics research that spanned the fall and spring semesters of my junior year. Over the course of this project, I was exposed to many new concepts. These include new mathematical concepts such as Laplace transforms and first and second-order differential equations. However, I enjoyed learning our software, Overleaf, and MATLAB, the most. I adapted to Overleaf very quickly due to my programming background, and it proved to be a very versatile LaTex editing program for our research paper. We were also able to learn MATLAB to graph and simulate the wireless power transfer circuit we were studying. We turned one of our second-order equations into a first-order equation to make it compatible with MATLAB’s graphing system and edited the variables so they would display correctly.

When my advisor sent out the email regarding the ADMI Summer Coding Institute, I realized how perfect the opportunity was for me on expanding the foundations I have had to build. The Bandit levels have helped me gain a greater understanding of Unix commands I’ve had previously learned in my class at NSU. The levels have also provided exposure to new commands such as ssh, cron, and OpenSSL which had not been covered in prior lessons.

We’ve also had the chance to learn both HTML and python. The HTML portion was completely new to me, and I thoroughly enjoyed learning the basics of the backend for web pages. From these experiences, I can see myself applying this knowledge to future jobs/internship opportunities and am grateful to add it to my resume. While I had gone into this program with a bit of prior python knowledge, it has been over a year since I worked with the language. These courses have been a great refresher on the basics that I have learned throughout working in the field of programming. The best part is that I’ve had to learn independently and at my own pace. It has given me much-needed hands-on experience with the language being covered these past 3 weeks! I’ll also be using this course as a chance to gain my certifications in both HTML and Python to improve and increase my value as a computer scientist and continue forth living my dream!