Professional Self-Assessment

I am, as of this moment, what I consider to be a learner. Throughout my time learning at Southern New Hampshire University(SNHU) my CS 499 Computer Science Capstone class laid the foundation for me to showcase what I can do in a more professional way. This portfolio, though simple in form, is the medium for how I can show what I’ve learned and accomplished through my own efforts. The capstone class itself forced me to step out of my comfort zone. Allowing me the opportunity to be innovative and creative in how and what I do.

However, the skills I strive to display in this portfolio cannot only be attributed to just one class. My entire journey at SNHU, and my personal interests, has pushed me and allowed me to learn. Throughout my time, I’ve gained experience in several coding languages like C++, Python, Java, JSON, HTML, and more. I’ve learned and experienced more ideologies and professional workflows that involve working in an Agile-based environment like SCRUM and utilizing development pipelines like DevOps. Something which also taught me how to professionally design, plan, chart, and even graph information for my teammates and even potential stakeholders. But probably the most important of all, I’ve learned of the importance of the ethical responsibility of software development, especially when working with large databases of sensitive information, and the necessity for incorporating security into every stage of the development life cycle. With such importance on security being a personal focus for my interest.

Now, focusing more specifically on this ePortfolio, it contains my work on a singular artifact over three iterations of enhancements that aimed to modify, diversify, and display a program from a previous class at SNHU where the final project involved Machine Learning. Said three enhancements are aptly named Software Design and Engineering, Algorithms and Data Structures, and finally Databases. With each being labeled and accompanied by the artifact’s source files and a narrative that explains more about each enhancement. But, considering a brief explanation of each artifact, with the first enhancement I aimed to transform the original artifact entirely from Python to C++ while maintaining as much functionality as possible. In the second Enhancement I replaced the Keres Machine Learning library with my own custom learning algorithm. And finally, in the third enhancement I added functionality to support the ability to save the experience buffer of the system into a local database with MongoDB.