7-1 Self-Assessment

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CS-499-T3255 Computer Science Capstone 21EW3

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Due: February 21st, 2021

1. **Self-Assessment**

Early on, I always had an interest with computer design and an ambition to learn how things work. Even when friends of mine would be playing video games, I would be more curious about the design and code that made those games possible. When I came to SNHU and started in the Computer Science Program, I was excited and ambitious to learn everything I can about the various components for Computer Science. Two years later, I have learned so much about Software Engineering and am excited to learn more in my future. Attached are the highlights of my degree program, and a showcasing of my skills. In this self-assessment, I will go through each category and explain what I have learned while taking this course and after taking this course.

One of first attachments in my e-portfolio is an outlined code review. The code I chose to review was from CS-330 Computer Graphics and Visualization, a course in which students used their coding skills to create a 3D object. This project was very beneficial to me because I had the experience of learning the, “behind the scenes” work of 3D objects and the code that is used to create them. Also, this assignment shows the structure I use in my code to make sure everything is laid out neatly. For example, everything in my code is equally spaced out, and the if/else loops are tabbed accordingly to not cause any errors.

In accordance with my code review, I decided to use the same assignment for my enhancement in Software Design and Engineering. The reason for this was because the attached code has many aspects of this category, along with areas that can be improved. While the structure of this code is very neatly laid out, the comments in the code are also very descriptive but brief. Comments in code are important for members of the design team because it helps avoid confusion in the continuation of the project. For example, if a team member is working on one section of the code for another team member to take over, they need to ensure it is functioning properly and is free of bugs and errors. In the event that an error appears, the team members can look at the comments in the code to understand what is happening, and resolve this problem without any further questions.

An Algorithms and Data Structure enhancement of my e-portfolio is from my experiment in CS-350 Emerging Systems Architectures & Technologies. For this courses Final Project, the goal was to create a Python code in a Raspberry Pi to communicate with a GrovePi+. This course was an informative experience because it inspired both myself and other students to work with physical components along with the software and coding aspect. In the attached video, I show the Python Code that causes the LED attachments in the GrovePi+ to light up when certain temperatures are identified by the temperature sensor attachment. In this point of my Undergraduate studied, I had never worked with Physical components, only the digital code. This course gave me a different point of view because I had to opportunity to witness my code performing the actions on a physical device.

The last enhancement in my e-portfolio is databases. For this enhancement, I have attached my final project for DAT-220: Fundamentals of Data Mining. In this course, I learned how to analyze databases to benefit a company and its customers. Also, I had the opportunity to pull data from multiple databases in order to analyze and draw a conclusion for improvements of the company. This project was beneficial for me because it taught me how to analyze different forms of data and draw conclusions from graphs or charts.

In my Undergraduate studies, I have had many wonderful learning experiences that I can take with me in my professional career. Currently, I am applying for a job as a Process Technician where I can use both my coding and structural skills to improve a departments processes. The enhancements in my e-portfolio are just a fraction of the knowledge I have gained in my Computer Science degree, but they accurately display how my Software engineering knowledge has improved over the course of my Undergraduate Studies.