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**CS-330: Computational Graphics & Visualizations**

**SNHU - Instructor Diesch**

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**Week 8 - Portfolio Submission**

While working on this project, I learned many new design skills and techniques. Prior to this term, I had only used my coding skills to print output, run algorithms, test other programmers code, and set up secure API interactions. This class allowed me to dive into my creativity and bring a 3-dimensional scene to life using the OpenGL framework. Using OpenGL gave me a lot of insight into what working code looks like when used for graphics and visualizations. Prior to this term, I was having a hard time understanding how syntax would translate into a visual representation. This class has cleared up a lot of that confusion.

During the design process, I noticeably separated and descriptively labeled the code for each object so that I would know which part of the scene I was working on. I also kept my code neatly organized and easy to read, while properly documenting its functionality in detailed comments. This allowed me to quickly revisit a particular area in the scene and made it much easier to add or modify the existing code.

In this project, I had to constantly move back and forth between the code and the running application in order to observe changes in the 3D world. This was much different than in prior classes where most of my time was spent writing code and then running the program to test the final outcome. At first, this was a bit of a headache, and I often lost my place in the code after viewing the world. But, after a few weeks of practice and learning some shortcut keys, I actually enjoyed the process of iterating through the program as changes are made. Overall, though, my approach to developing and coding hasn’t changed as much as it has just been sharpened. For me personally, staying organized and writing detailed comments have helped me stay focused and be successful in the computer science program from the very beginning.

This class has been an eye opener concerning building computer graphics and the coding involved. I believe this will greatly help me in the future as I continue on the computer science path. Every website, game, or company online hosts some sort of graphics or visualizations. It will be extremely beneficial moving forward to know how to work in this area of the field and have knowledge of software such as OpenGL.