3-2 Milestone: Enhancement One

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CS-499

This artifact is a 3D animation of a picture I took containing four objects. A dumbbell, a candle, a remote, and a ball. It is coded in C++ and it uses the modern OpenGL libraries to render the objects and textures into the scene. The idea was originally created in April of 202 but was not functional until June of 2022.

This artifact is being included in my ePortfolio because it is the code, I am most proud of when it comes to my school work. It shows my ability to create something truly my own. The artifact shows my ability to create complicated code, integrate different functions into each other, and ability to adapt to a library and use it to its potential. It is not code that I could look at other code to make my own, besides for understanding some concepts, due to its uniqueness. I believe it really shows creativity and ability to work with new products/tools. The improvement made to the artifact saved over 150 lines of code and got rid of a lot of unnecessary comments. At the end, I added in a function to add in textures. Without this function being added, every single time a texture was integrated into the scene. Since this scene has eight different textures, that code was written eight times over. There was a lot of commented out code, trying to add to the scene that was unnecessary but the code was kept making a lot of unnecessary code adding a lot of confusion. I did some other very small things, but all of those small things were rewording comments and fixing spelling errors in them for readability.

I do believe I met the objectives I planned to meet for the enhancement. I did originally want to add in that feature that was commented out, but the time it would wake to test and get working was too great. It is a little sad that I was not able to get it working, but I think the improvements I made to the artifact were very valuable. It helped solve a lot of confusing logic by having unnecessary commented out and unused code, while also removing the amount of code while doing the same task making it more efficient.

For this artifact, there really are things I would like to do with it. I think 3D design in computers is a really fun thing, but more of a hobby for me. I did learn a lot, and I was always worried that maybe focusing into the security and logical side of computer science would be a regret due no real creativity. This class taught me it fun to be creative, and make something my own in art for computer science, but not something that I wanted to do. I had time to reflect on if this made me happy in the sense of accomplishment, or just something to do to hone my skill, which the answer was just honing my skills. The improvement itself was a simple one, but helped me see some flaws to my logic. Nothing serious, but things to look out for to improve my code in the future. Which is to actually use functions and not repeat code, which I tend to do sometimes. The project really helped me realize I am smarter than I give myself credit for. The hardship and time I put into this project, which may not look like the biggest thing ever created, was unexplainable. However, I pushed through even after failing over and over again to create something I am proud of. I did not know C++ to well, and never even heard of OpenGL before this. Having to learn the language, and how to incorporate the OpenGL language and tool was a real challenge. I have a habit of beating myself up mentally if something does not just click for me and become overly stressed. With this, that happened, but luckily, I am also extremely stubborn even to myself and kept on moving forward until it worked!