Artifact One Narrative

The first artifact I selected from my CS 330: Computational Graphics and Visualization course. The project is designed to render a 3D scene from a preselected image I submitted earlier in the course, which was taken in the fall of 2023. I decided to include this artifact in my ePortfolio because this project represents my ability to study, understand, and apply new and unfamiliar coding concepts. Prior to this course, I’ve never experienced any graphics programming. While I consider myself very proficient in C++, utilizing OpenGL for the first, which are C++ libraries, felt like a beginning coding course in a computer science program. I started losing confidence during this course and began questioning if I should continue with the computer science program at SNHU. However, once everything clicked, it felt like riding a bike and I began to understand graphics programming to the point where I actually like it. The project represents a personal growth for me as a student. For my enhancements, I decided to implement a few advanced graphics techniques such as camera movement, textures, and lighting to give the scene a realistic look. For this specific scene, I added textures to the walls and objects, and added a nighttime lighting effect. I also added camera movement to give the user greater control of the camera. The user can use the A, S, D, and W keys to move left, back, right, and forward, and the Q and E keys to move vertically up and down. I feel I met the course outcome of designing and evaluating computer solutions, and using innovative skills and programming tools. One thing I learned from this enhancement is the importance of using comments and documentation for any source code. I left detailed comments within my source code that allowed me to add my enhancements without needing to go over my course notes. That just reiterated to me the importance of code documentation.