Sergio H. Passos

16 Dec 2021

CS 330

Design Decision

* Justify development choices for your 3D scene. As you write, think about why you chose your selected objects. Also consider how you were able to program for the required functionality.
  + I honestly had a challenging time selecting my image. I knew working with OpenGL was very challenging with the limited knowledge that I had. I also didn’t want to pick anything to difficult since I wanted to finish the assignment. My image mostly consisted of primitive objects with some objects having multiple primitive objects. I felt this was important since dealing with complex geometry is again very difficult with limited knowledge. Working on the main project over the last few weeks has allowed me to program the required functionality. Programming is difficult and takes time to code, debug, and optimize. That is probably why the Agile/Scrum techniques are so invaluable in the industry. Staying organized while progressing forward is the only way to finish and publish software.
* Explain how a user can navigate your 3D scene. As you compose your thoughts, discuss how you set up to control the virtual camera for your 3D scene using different input devices.
  + The user has 6 degrees of freedom when it comes to the movement. They can use the WASD keys to move relative towards the camera. With W being forward, S being backwards, S being left, and finally D being right. Additionally, with the Q and E keys the users can move up and down relative towards the camera. Lastly, the user can fine tune the speed with the scroll wheel.
* Explain the custom functions in your program that you are using to make your code more modular and organized. Ask yourself, what does the function you developed do and how is it reusable?
  + Honestly, I didn’t do a good job organizing and modularizing my code has I had hoped for. The last three weeks I traveled to visit my parents for the first time since the pandemic. I just arrived back home in South Korea, were I’m currently in quarantine for the next 10 days. However, organizing, and modularizing code is extremely important. For scaling and debugging. I would have wanted to rip my meshes from the sources and create a separate header file for storing primitive shapes and their rendering functions. Additionally, I would do that same for the light sources.