

This time around I learned about the APA and MLA format. It was very interesting because it really bumped up how professional my essays look. I also chose a pretty intensive topic to study: the graphical pipeline. It made me study about rendering methods and how the graphical pipeline works in computers. I also researched the differences between volume based rendering and polygonal rendering which showed some interesting rendering methods and why volume based rendering isn't a standard yet. I really hope it does because it's incredibly promising. Other than that I didn't really learn much. Writing essays is incredibly easy when you write about something that matters to you. For example I really care about computers and Linux, I never really had to research much to write about the graphical pipeline because I use it every day when working with OpenGL. I have a deep understanding of it which gives me tons of information to shovel out onto the paper. This class would've been much more challenging if we had a specific topic to write about, but that'd also make it boring. I really appreciate the class because I got to study on my own about things that matter to me. Researching computers is something I do every day, getting rewarded for it is something that gives me drive and passion to keep going. To go into more depth about what I learned about volume based rendering is that its almost impossible to animate it feasibly, so it's mainly only used in MRI and CAT scans of patients in hospitals, but the incredible detail you can render via volumes is astounding. It doesn't get slower with more objects on screen so it's pretty exciting to think of a video game involving an unlimited amount of units or things on screen. I also learned that volume rendering can create some

incredible effects in things like clouds, smoke, glass, or ice because of the accumulative mass, rather than just polygons, but again this is hardly feasible to do in real-time in a real game, but maybe one day it'll get there and I'm hope I'm there to see it. Preferably on Linux.