CS 457 Final Project: Vaporwave and Scanlines

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Loom Video:
https://www.loom.com/share/1859963bf94f45d4a01081372e168a5d

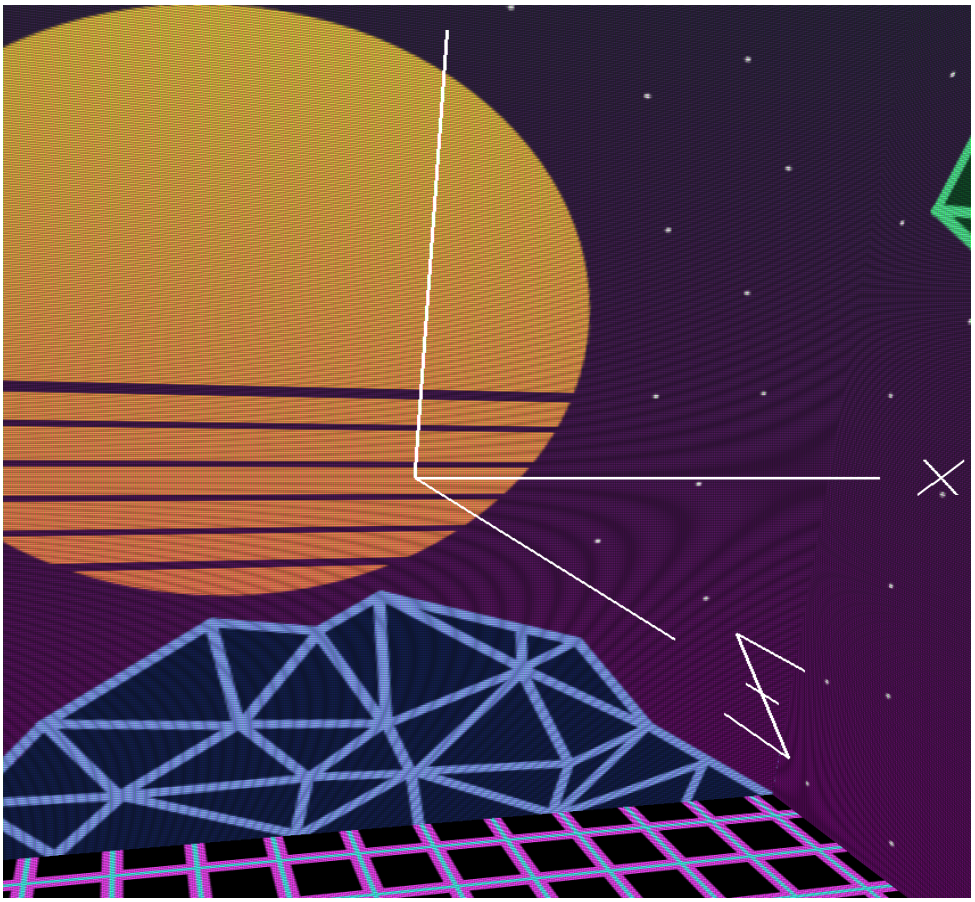
Note! If you are running my code, I'm using Project #6 as a base (for the cube map), you will need to select the Program: Texture drop down in GLMAN Shader Parameters to access my Sliders. I ended up leaving the Reflection and Refraction code intact for testing and fun, but it became the default program.

Changes from Proposal:

In my proposal I initially wanted to make a more grainy effect to look like a vintage movie, but I ultimately decided to try making scanlines to emulate a CRT TV as I felt it fit what I wanted to accomplish better. To this end I did some research and found a couple of example shaders for Retroarch emulators that created retro TV effects that I used as a basis for my texturef shaders. Ultimately it let me create a cool effect in my opinion, and I enjoyed making my own textures as well, as they are all of my own design except for using some transparent sonic art on one of my Z-Axis panels (though I did make the ring and banner that surround him myself).

I also implemented a Shadow Mask after reading about the shader's I was referencing to make them look more realistic. I had intended to try and

even make MSAA Anti-Aliasing work as well, but Prof. Bailey informed me that GLMAN has disabled that functionality by default in order to run on lower end PC's so I abandoned that idea, as it was mostly to fix the Moire effect that the scan lines produced when the cubemap was rotated.



I also used code in order to sharpen the pixel edges via a boolean value, however due to the small size of the textures (512 by 512 just like Project #6) you would need to zoom in really close to see it, which I show off in the video. If you wanted to check it yourself I suggest zooming in on the Sonic Emblem, there are a lot of edges where it shows well when up close compared to the Sun or the Trees.