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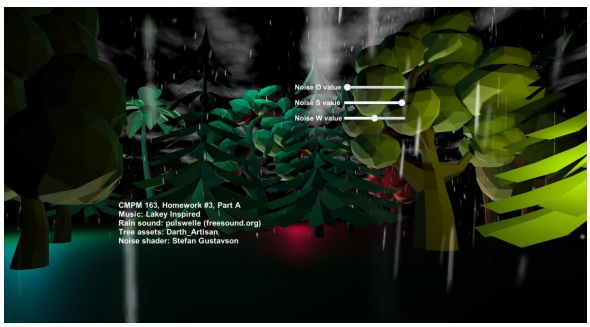
CMPM 163, Homework 3

Link to Github: https://github.com/terrydubois/CMPM163/tree/master/CMPM163_Homework3
Link to exe: https://github.com/terrydubois/CMPM163/tree/master/CMPM163_Homework3/Builds

In this assignment, I had to use Unity to make a 3D scene that contained a number of elements to it. First, I had to mimic some sort of natural phenomena using the Unity Particle System. I found a nice tutorial for creating fireflies with particles, so fireflies were the first thing created in this scene. At this point, I decided that my scene was going to be a forest at night, so I found some free tree models on the asset store and brought them into the project. To make the scene react to audio, I hid a few point lights around the trees and had them illuminate once a specific magnitude was reached by the given audio track.



To incorporate a shader that used noise, I used Stefan Gustavson's HLSL noise shader on Github. After analyzing Stefan's code for a while, I realized I could take out most of it for what I needed. I took out everything except his Classic Perlin Noise shader, which I applied to an overhead plane to simulate clouds. To give the player some way to control the scene, I gave the three main inputs to Stefan's Perlin Noise (O, S, and W) as slidable variables for the player. Changing these slides impacts the white color amount, offset, and black color amount of the noise shader.

Finally, I followed another tutorial for adding rain via the Particle System. Altogether, I am happy with how this scene turned out. It is fun to relax and watch the lights react to the music!