Shader Lab Assignment 7: Imaginary Material

For my imaginary material, I created “bowlero” — the material from which all is derived on the planet of bowling. I originally wanted to create a transparent material but realized quickly that that was out of scope for this week, so I pivoted to working with bloom effects, since we got the hint in class that blooming occurs when color tips over 1. I created a glowing effect by calculating the dot product of the normals and view direction, and then comparing that dot product with couple of sliding variables in smoothstep to restrict the glow to a certain thickness with an edge of a certain softness. The rest of the texture was just playing around with some fractal noise.

One challenge I ran into was getting the object to rotate while having the glow stay still (the rotation you see in my GIF is actually the camera rotating around the object). When rotating the object with gizmos in the scene view, this didn’t seem to be a problem, but applying a rotation matrix resulted in the bloom being stuck to the rotating object. I realized that the bloom needed to be static while the material moved, so I’m guessing it’s something to do with what space I’m in, but I couldn’t figure out how to use multiple spaces in the fragment shader while keeping the vertex shader unified…