

Shader Lab Assignment 5: Shape Shifter

My original intention was to shift a cone primitive into an ice cream cone by rounding out the flat base, and then adding color. I thought I could accomplish this by checking whether each z value was above or below a threshold, and then applying the normalize logic from the cube to sphere script we learned in class.

However, after attempting this basic step for an hour and getting weird results (the mesh breaking, concave doming in the wrong axis but not being able to shift it, etc), I decided to embrace one of the weird results of what I attempted, which was compressing the pointed end of the cone down until it the mesh became a circle. I added a y rotation that changed with time based on the rotation demo (the one we skipped in class) which I think creates a nice optical illusion. With the fragment shader, I also used noise with some normal displacement to give the shapes a bit of texture. This incidentally created a gap in the mesh that I felt like looks like a hand drawn line, which I liked.