Computer Graphics Term Project Proposal Shoshana Malfatto

3D Interactive Rubik's Cube

For my term project, I would like to make a Rubik's Cube program that let's you play with a 3D Rubik's Cube online. I think this would be an excellent and reasonable way to learn more about using WebGL, because a cube is not a difficult shape to implement but there's a lot I can do with it. There will be various transformations performed on the cube of cubes, most importantly rotation. The program will be interactive because the user can rotate sections of the cube. I would like the actual rotation of the section of the cube to show, instead of just moving the colors. The cube will also be able to rotate as a whole. I would like to add settings for the user to change their cube, which could include increasing or decreasing the dimensions of the cube, and changing the colors to be whatever color scheme you like. I originally did not see all of the 3D Rubik's Cube websites when I searched for them, but it turns out that plenty of them exist, so I want to add something to mine to make it special. I'm hoping to make the visuals more interesting than other Rubik's cube websites so that it is distinguishable and I will learn more.