Yi Chiun's Project 4

Cube Mapping Reflective and Refractive Bump-mapped Surfaces

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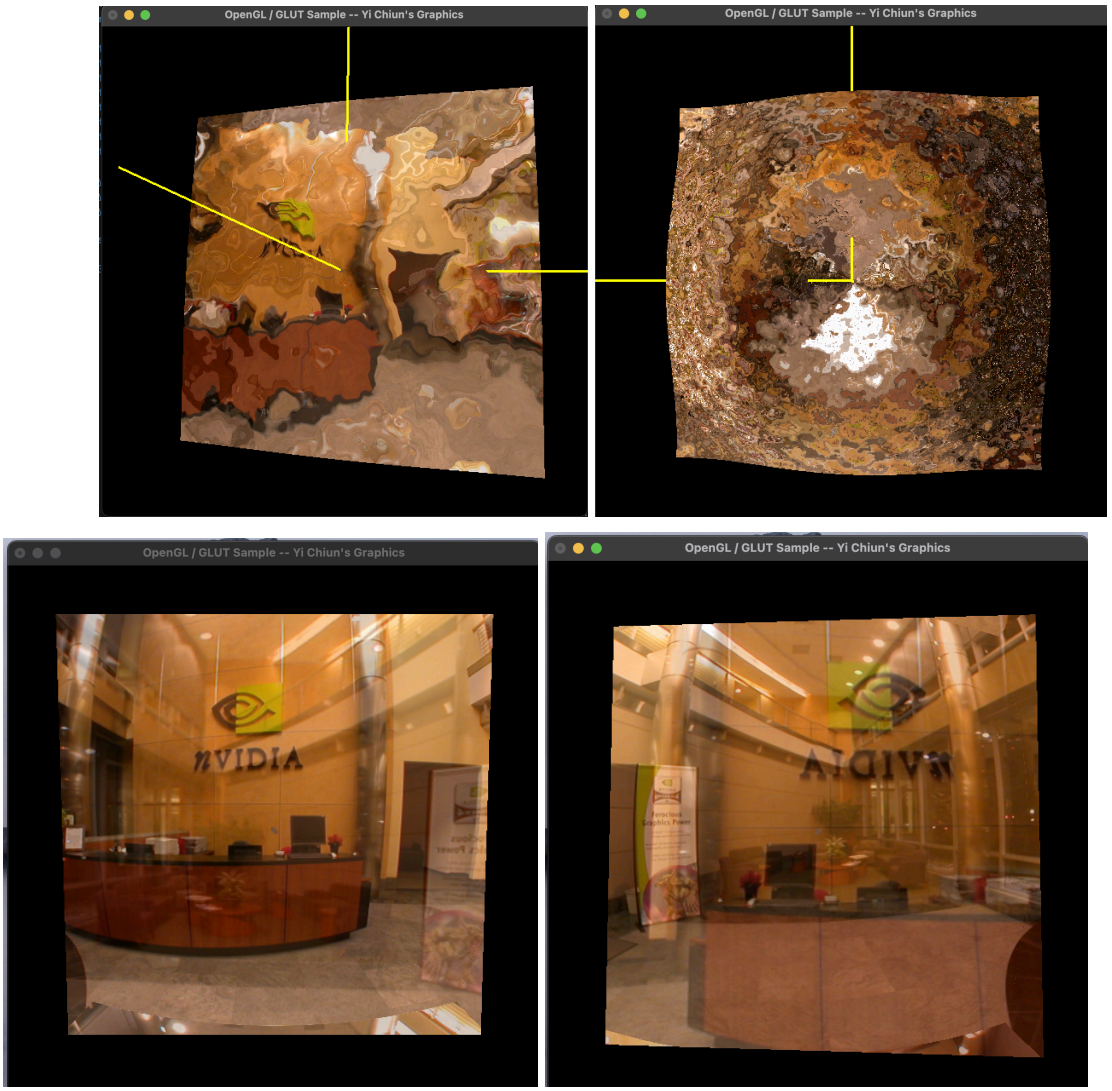
- ☐ I have made an object for this project. In this assignment, I use the GLSLProgram C++ class to create a shader from the pattern.vert and pattern.frag files. Declare variables uA, uB, uC, uD, uNoiseAmp, uNoiseFreq, uMix, uEta, uWhiteMix, uReflectUnit, uRefractUnit and texture. Besides, create key times and set values, allowing the flat to change in the XYZ vector with the progression of key time. I applied the same math function from project3 to achieve a bumping effect in my pattern.vert and pattern.frag files. Additionally, I incorporated the effects of reflect and refract in this assignment, along with a parameter called uMix, which allows blending the reflective and refractive versions of the scene." And get a noise value by indexing into a noise texture, and projecting the noise texture on the shader, which makes the bump-mapping effect on the plane. Simultaneously, I utilized the provided BMP files from the teacher to create textures for a 6-sided cube and applied the aforementioned effects to the entire cube.



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