CS 557

Computer Graphics Shaders

# Project 4: Cube Mapping Reflective and Refractive Bump-mapped Surfaces

Submitted By: Aman Pandita

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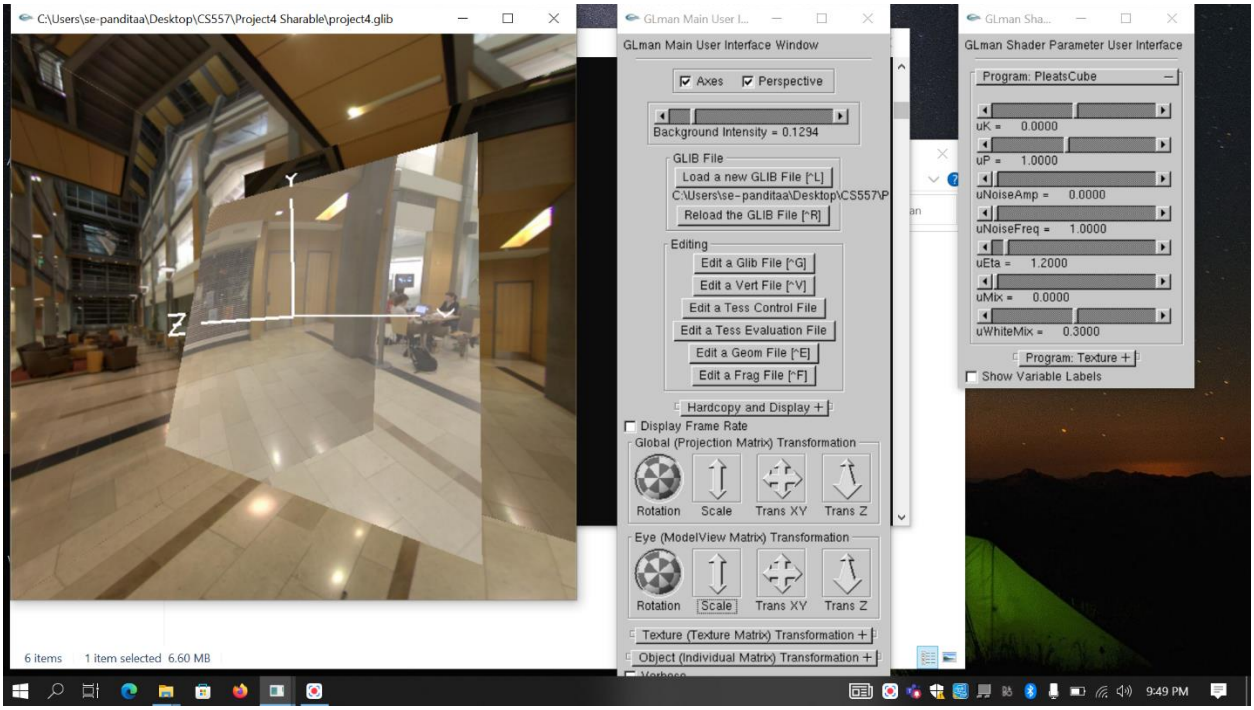
**Q: What you did and explaining why it worked this way**

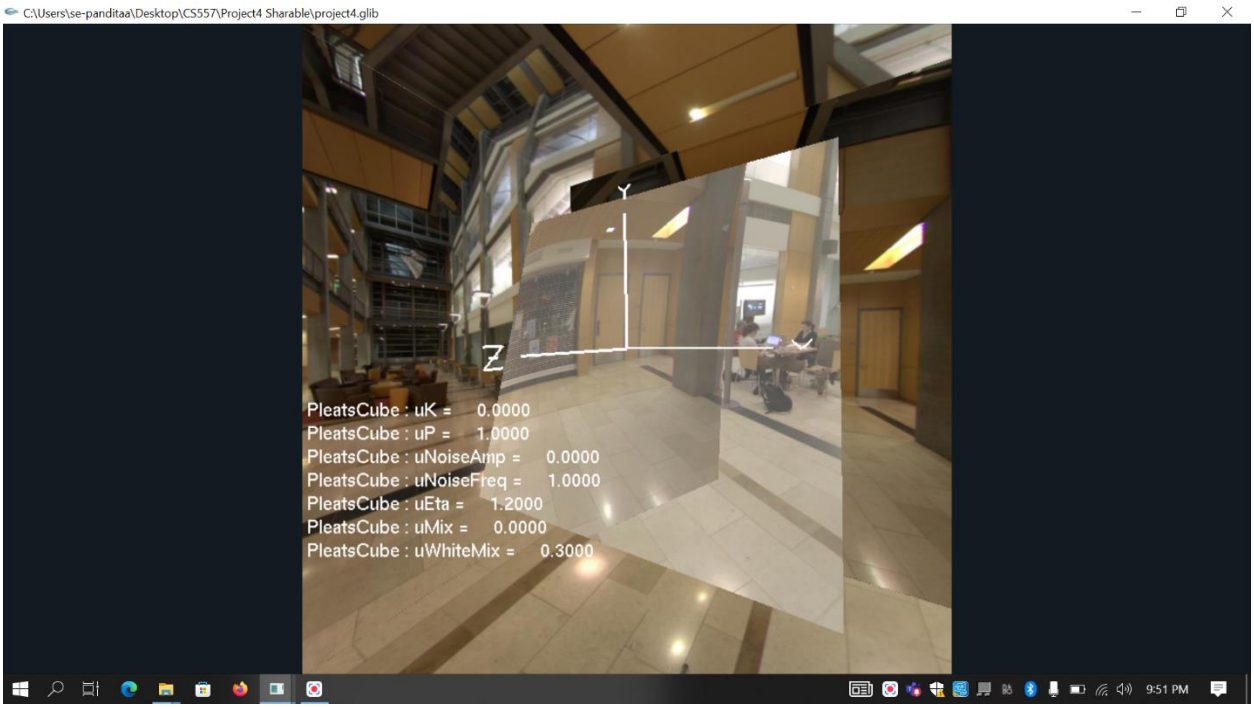
**Answer:**

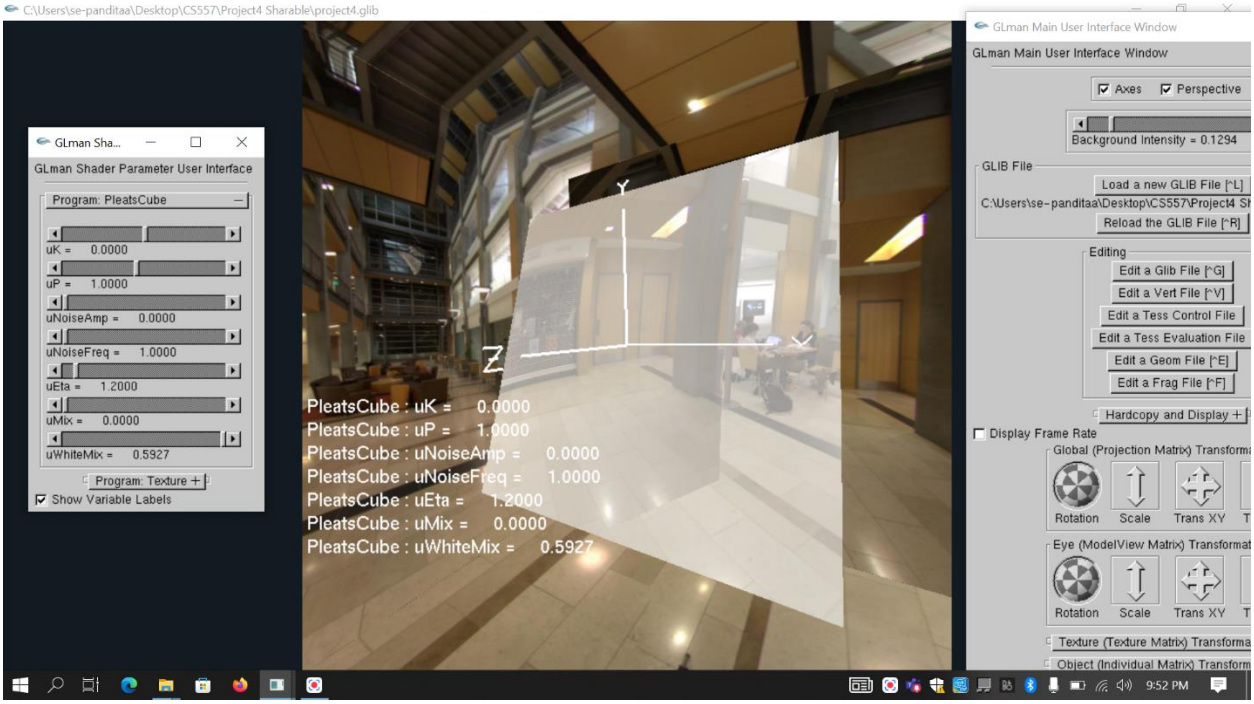
I developed a project that uses cube-mapping to create a reflective and refractive display of a bump-mapped math function. The approach involved creating a math function, generating a bump map, and using cube mapping to create a realistic environment. Two slider variables were implemented to allow user interaction: uMix, for blending reflective and refractive versions of the scene, and uEta, for adjusting the index of refraction. No lighting was included in the scene, relying instead on the cube map for realistic reflections and refractions.

**Link:**
**https://media.oregonstate.edu/media/t/1_amtwvbrt**

**ScreenShots:**

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uP = 1.0000
uNoiseAmp = 0.0000
uNoiseFreq = 1.0000
uEta = 1.2000
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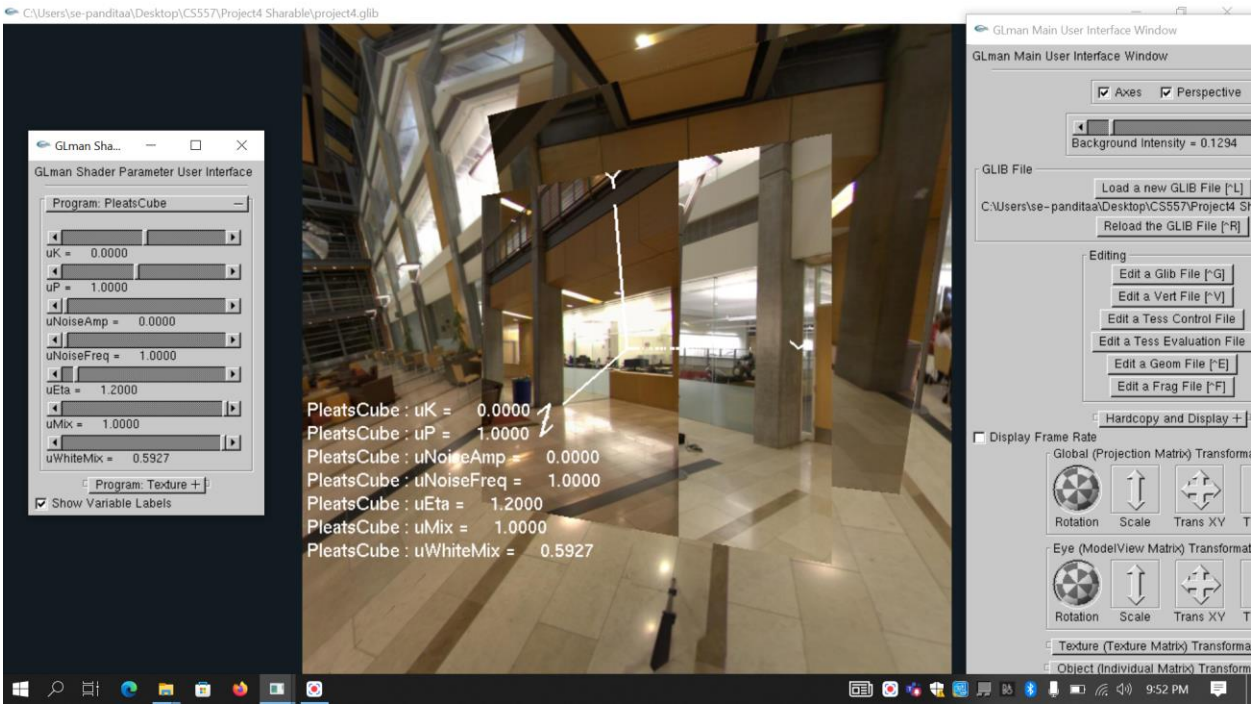
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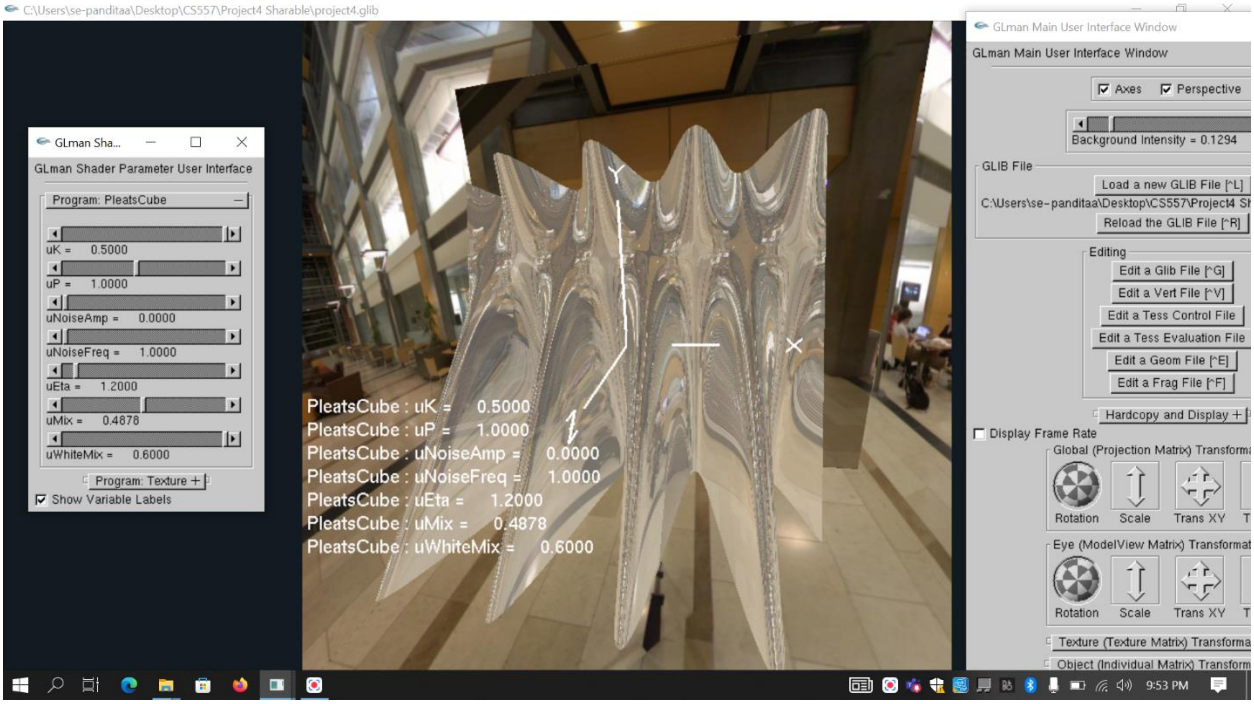
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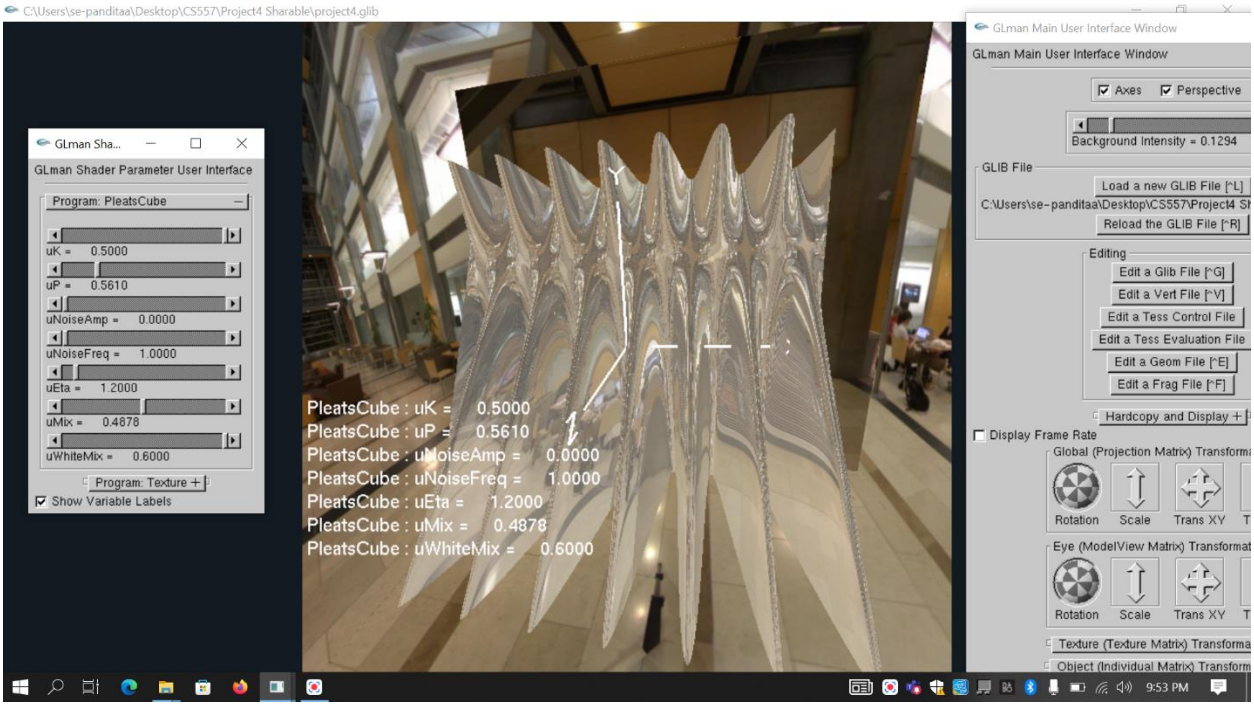
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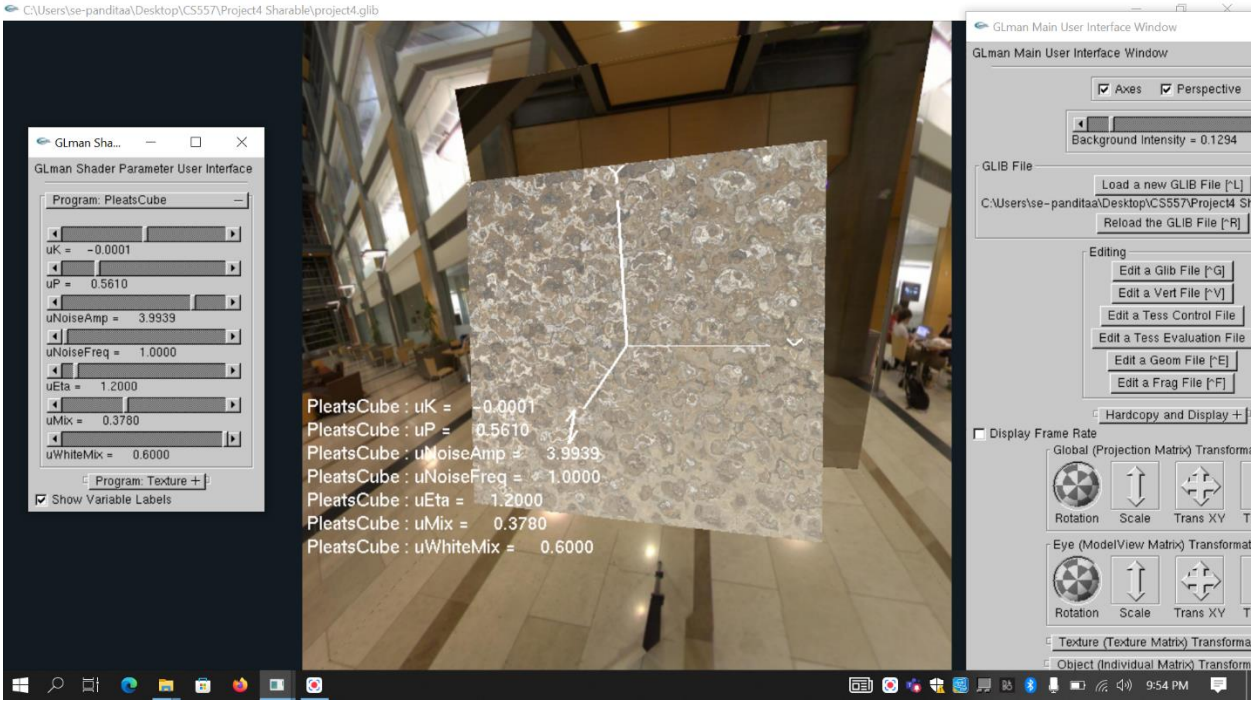
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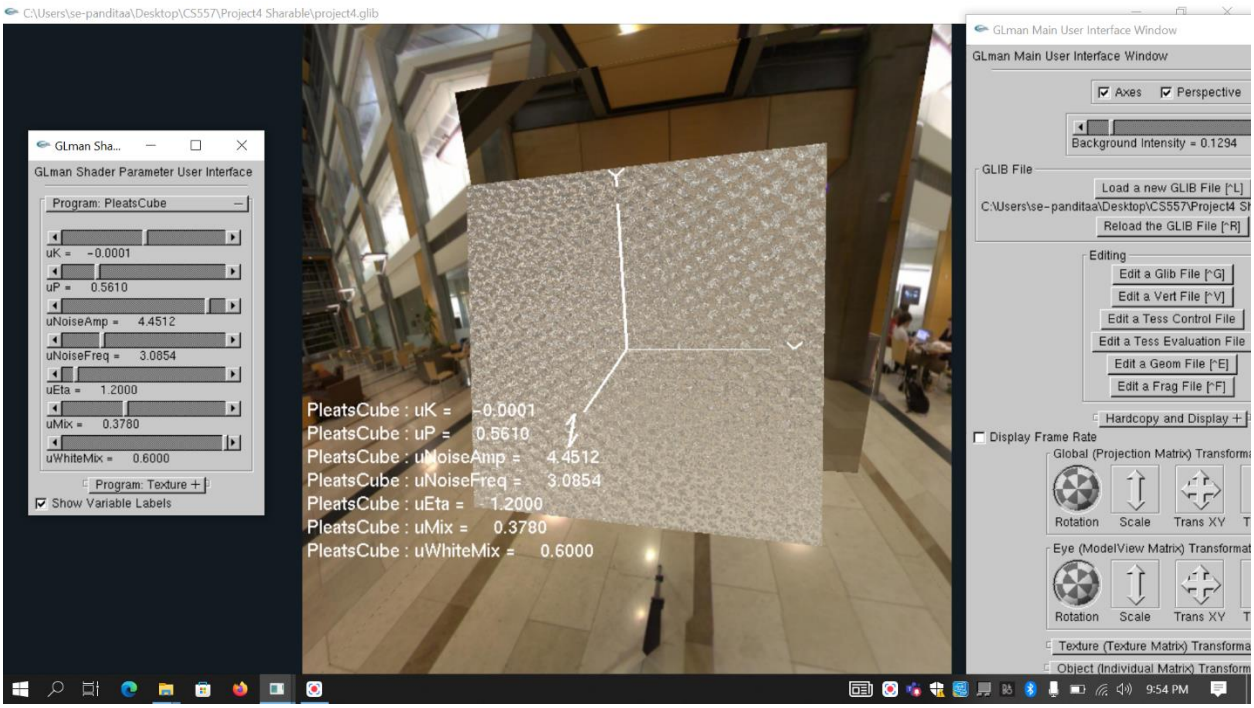
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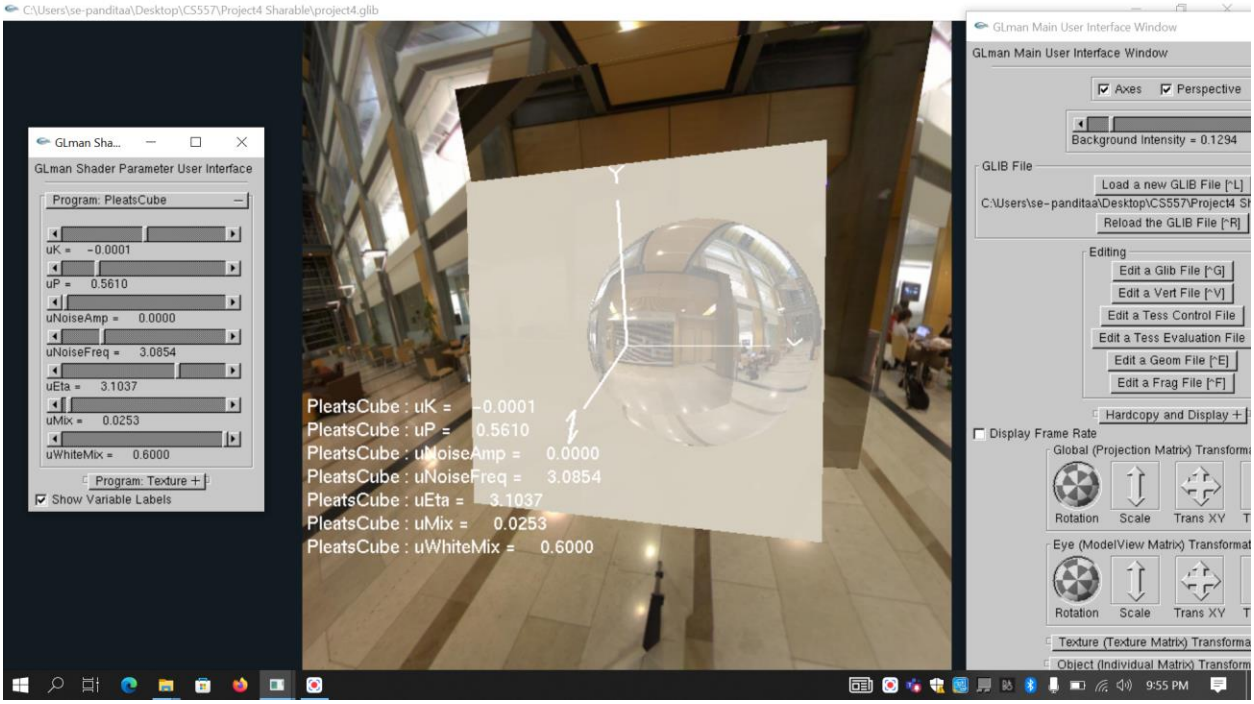
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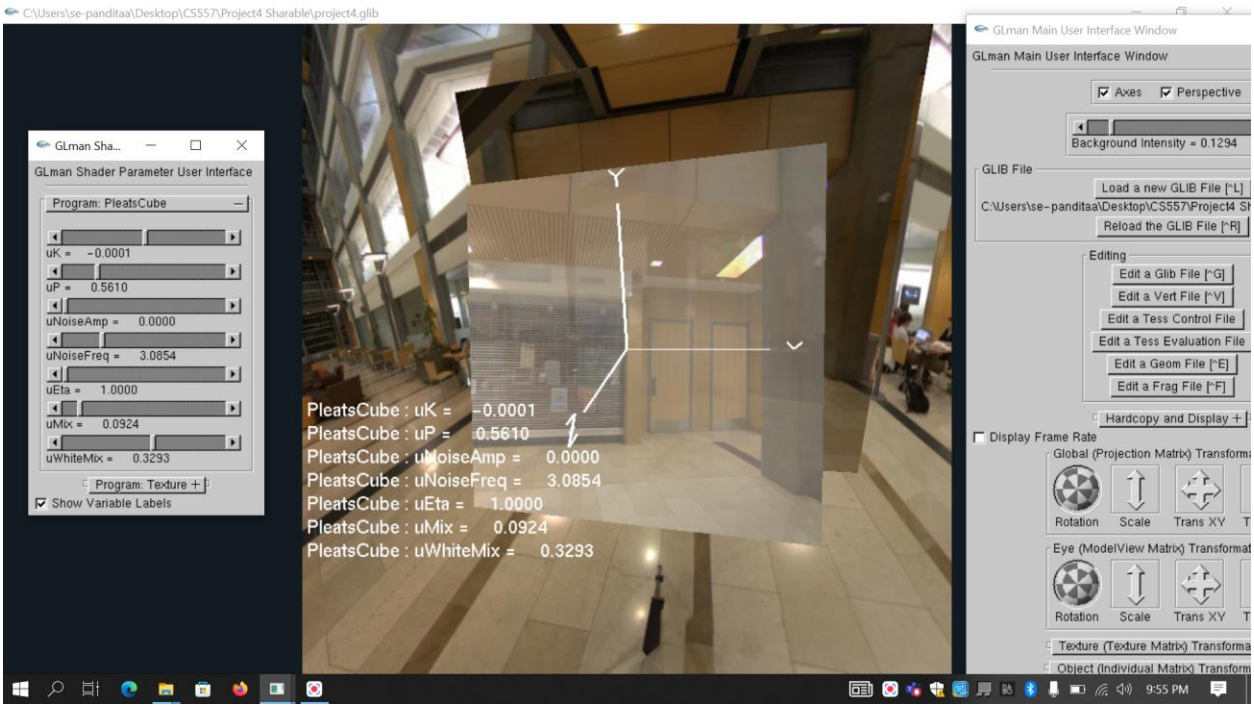
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