

# Project 5

CS 557 - COMPUTER GRAPHICS SHADERS

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**Project Number:** 5

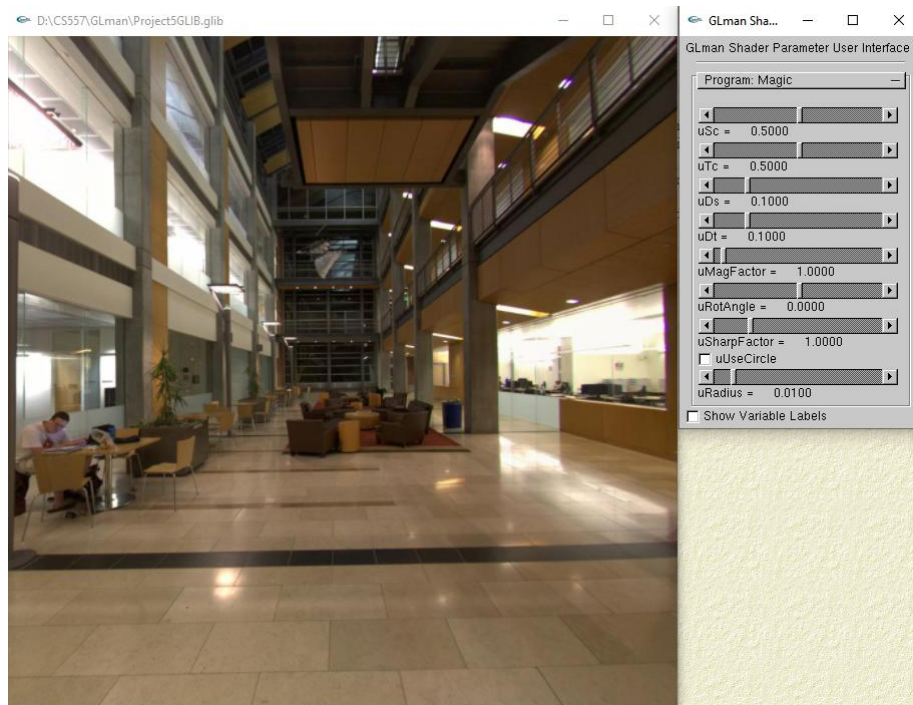
**Project Name:** Image Manipulation in a "Magic Lens"

**Video Link:** [https://media.oregonstate.edu/media/t/1\\_a2z7i2li](https://media.oregonstate.edu/media/t/1_a2z7i2li)

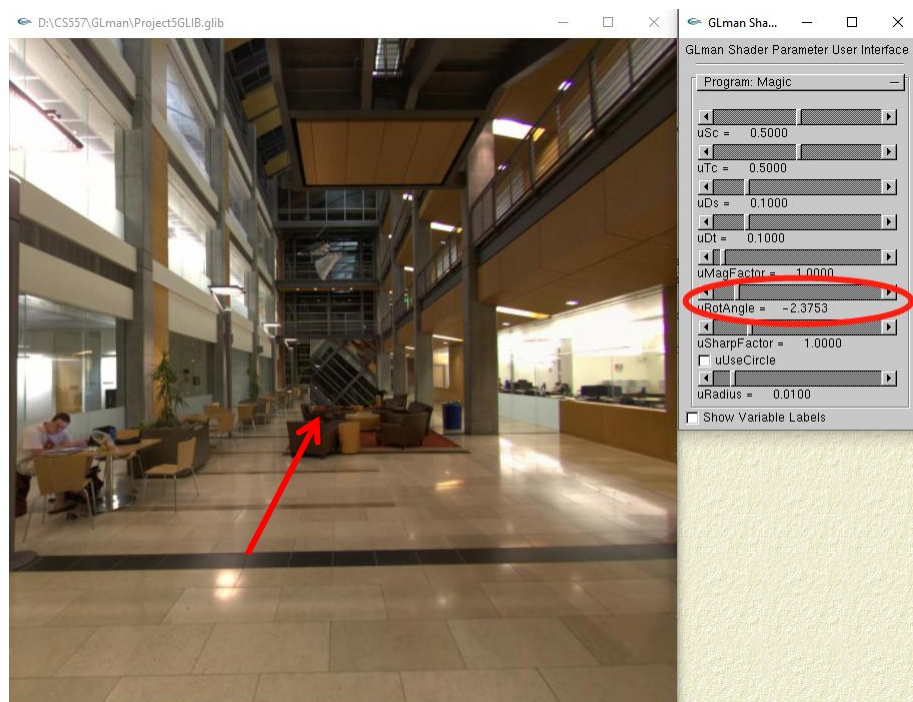
**Email:** [yuant@oregonstate.edu](mailto:yuant@oregonstate.edu)

**Time:** February 16, 2020

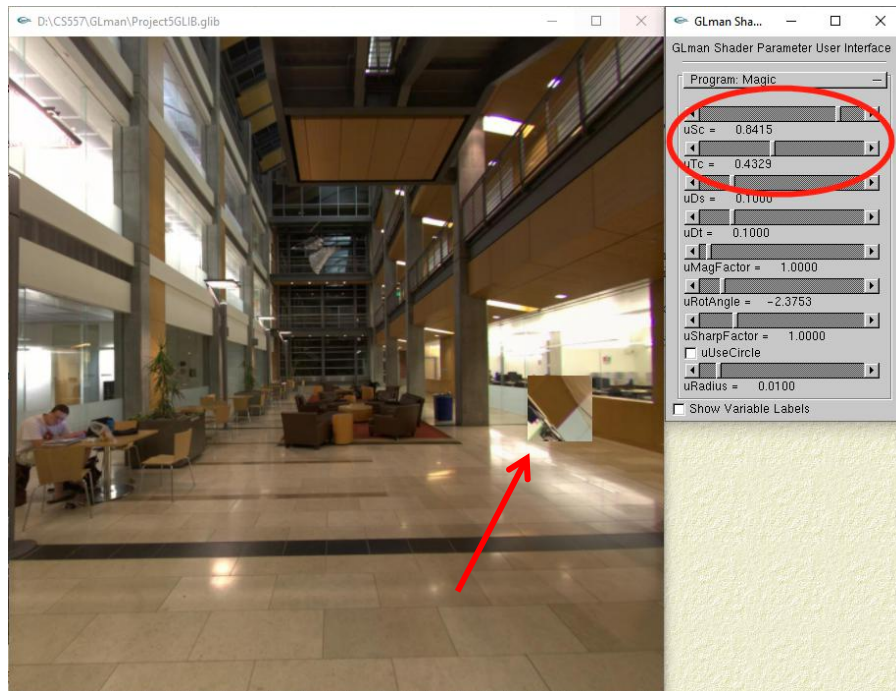
The original picture:



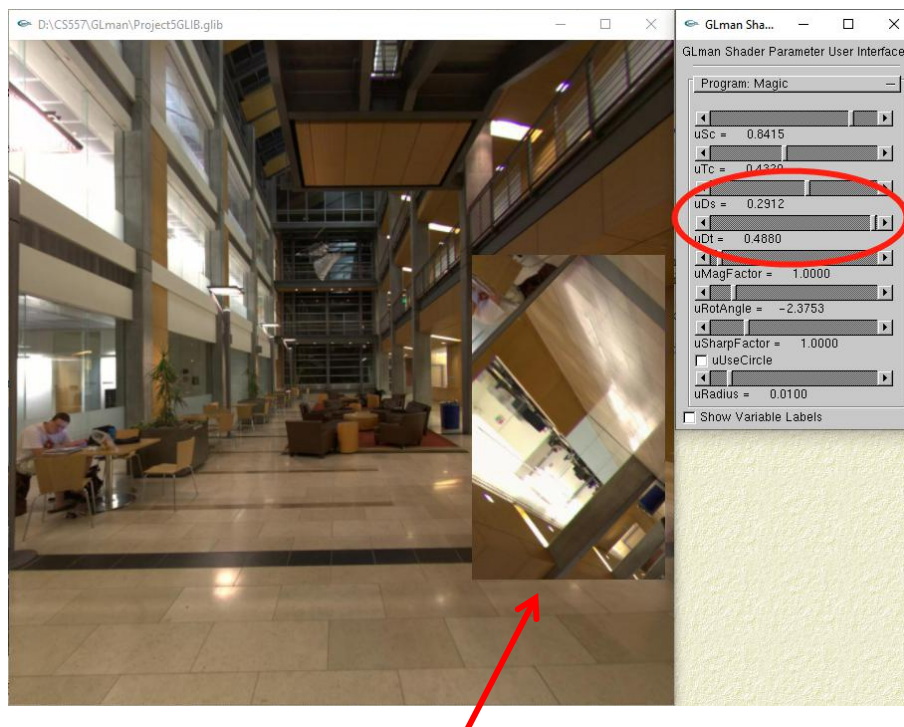
After rotate our rectangle with some angle by changing uRotAngle we can see the edge of the shape:



Moving the rectangle, by changing  $uSc$  and  $uTc$ :

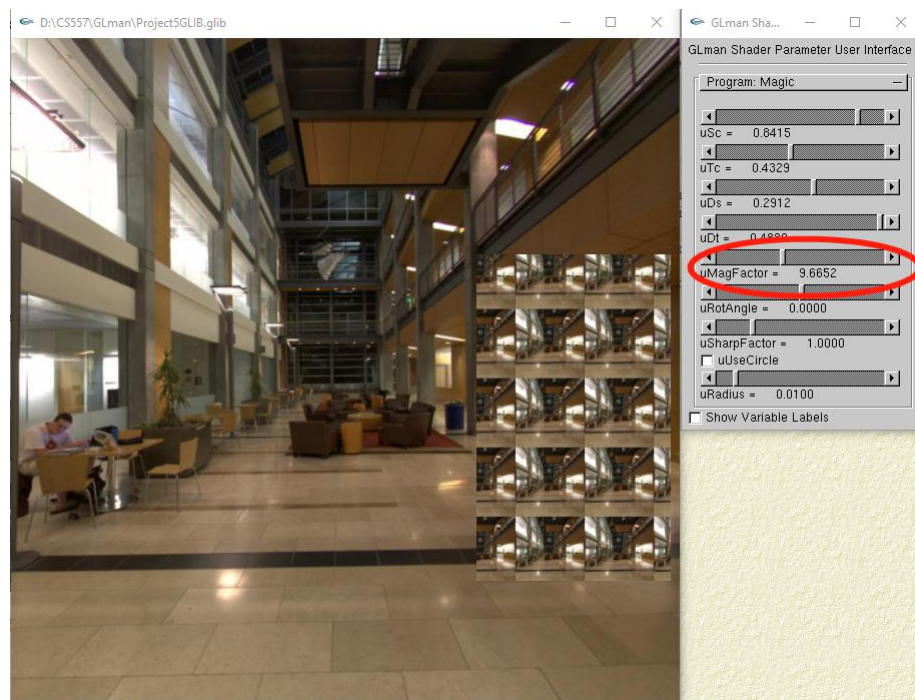
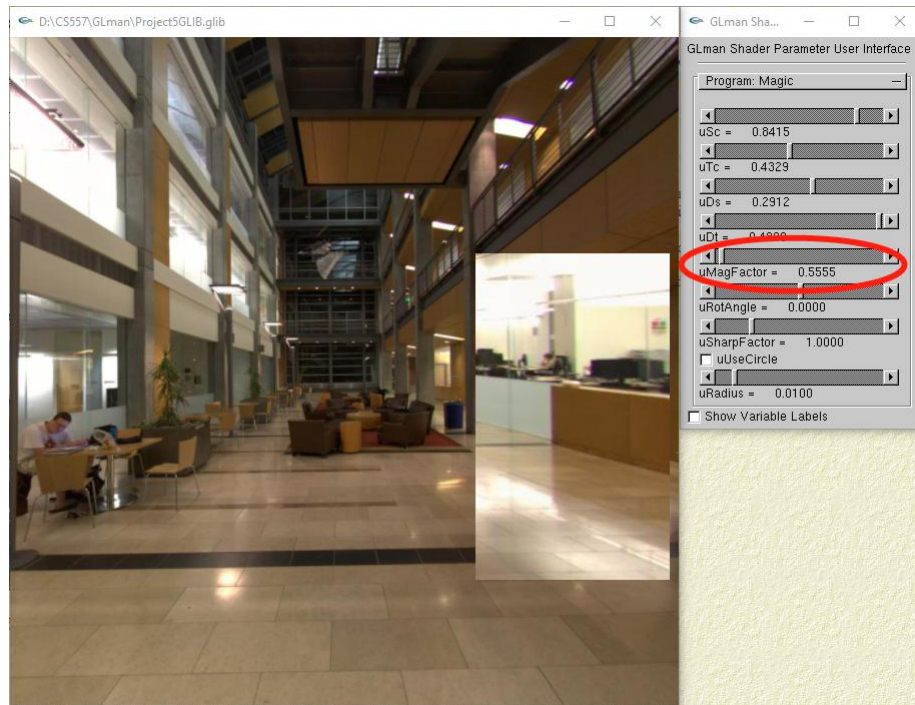


Re-sizing the rectangle, by changing  $uDs$  and  $uDt$ :

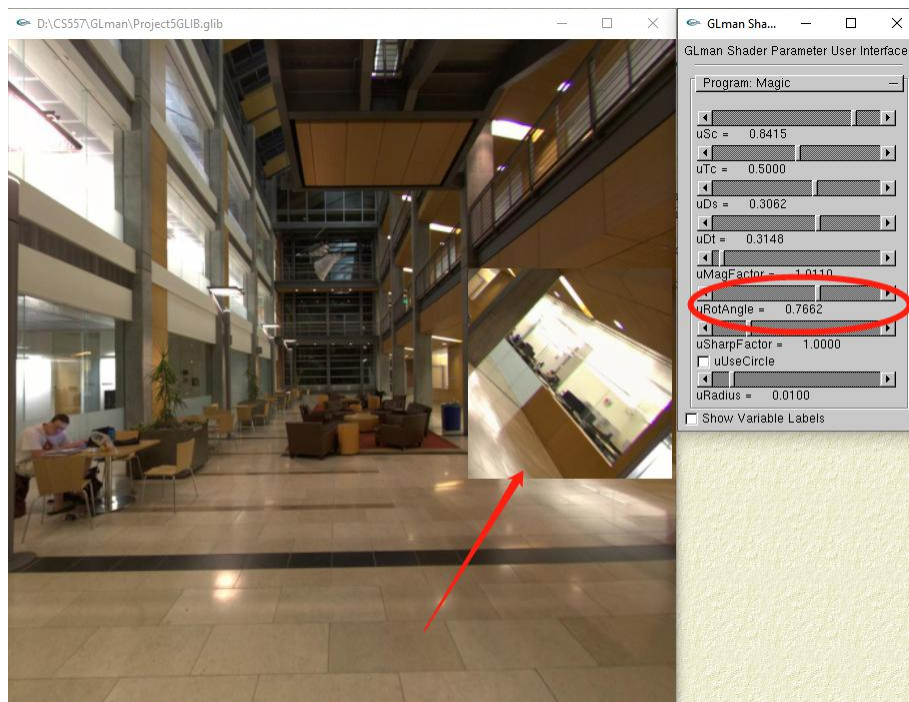
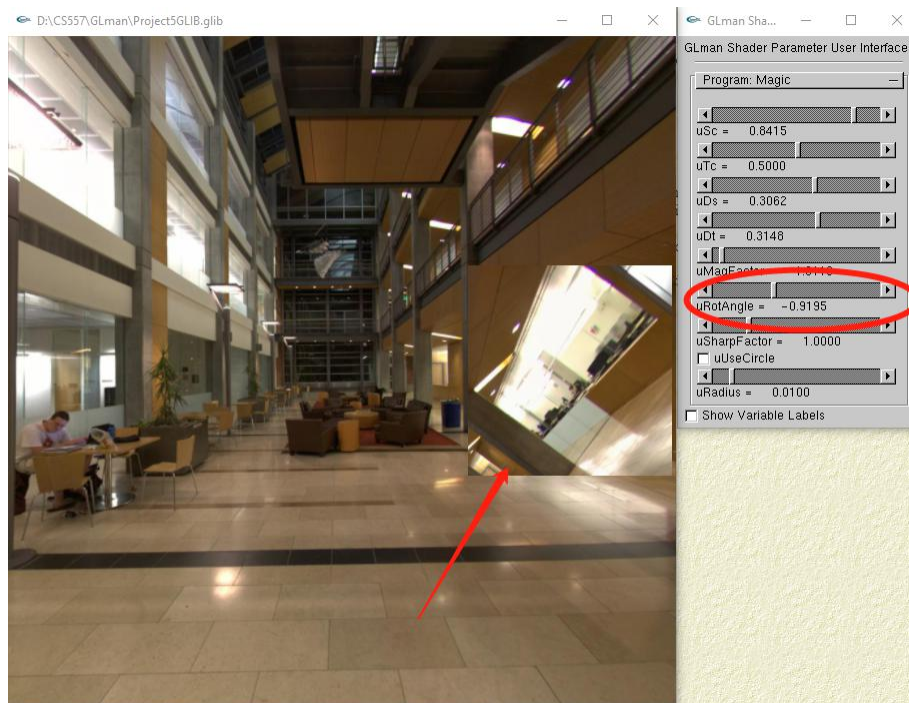




Then make the rotate angle back to 0 and do magnification by changing uMagFactor:

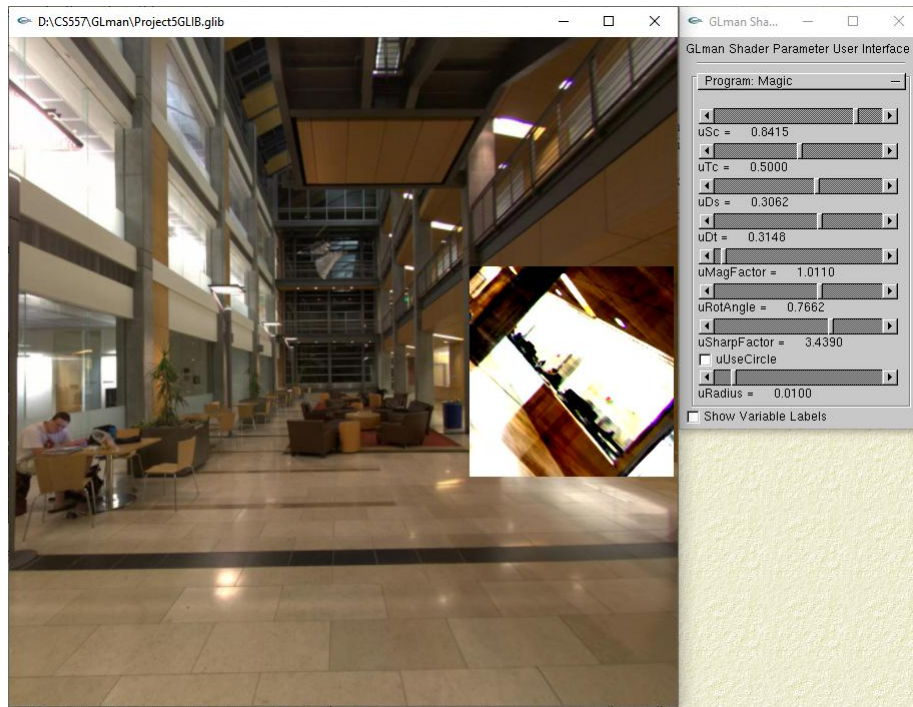


Then make the magnification back to 1 and do rotation by changing uRotAngle:





Then for the rectangular region, do sharpening by changing uSharpFactor:



Finally, we change the rectangular into a circle by clicking uUseCircle and changing uRadius:

