

Will Richards - *IMD 3002* - Prof. Chris Joslin

Summary of Task:

The goal of assignment 1 is to write a maya script in python to find the intersection point between a circle center and each of its vectors on a cube

Methods Used:

I found the course notes and tutorial sessions to be incredibly helpful for this assignment. I have included my notes to show my process but this generally follows the discuss ideas in class.

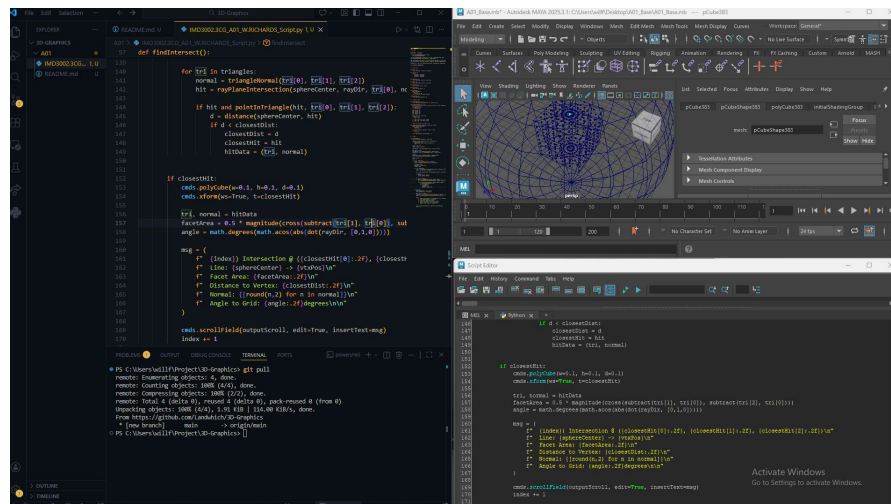
I took the following steps:

1. find circle midpoint using maya selection and xform
2. get all vertices and faces, subdivide target faces into triangles to get the facet normals
3. find the planar intersection and make sure it falls within the triangle

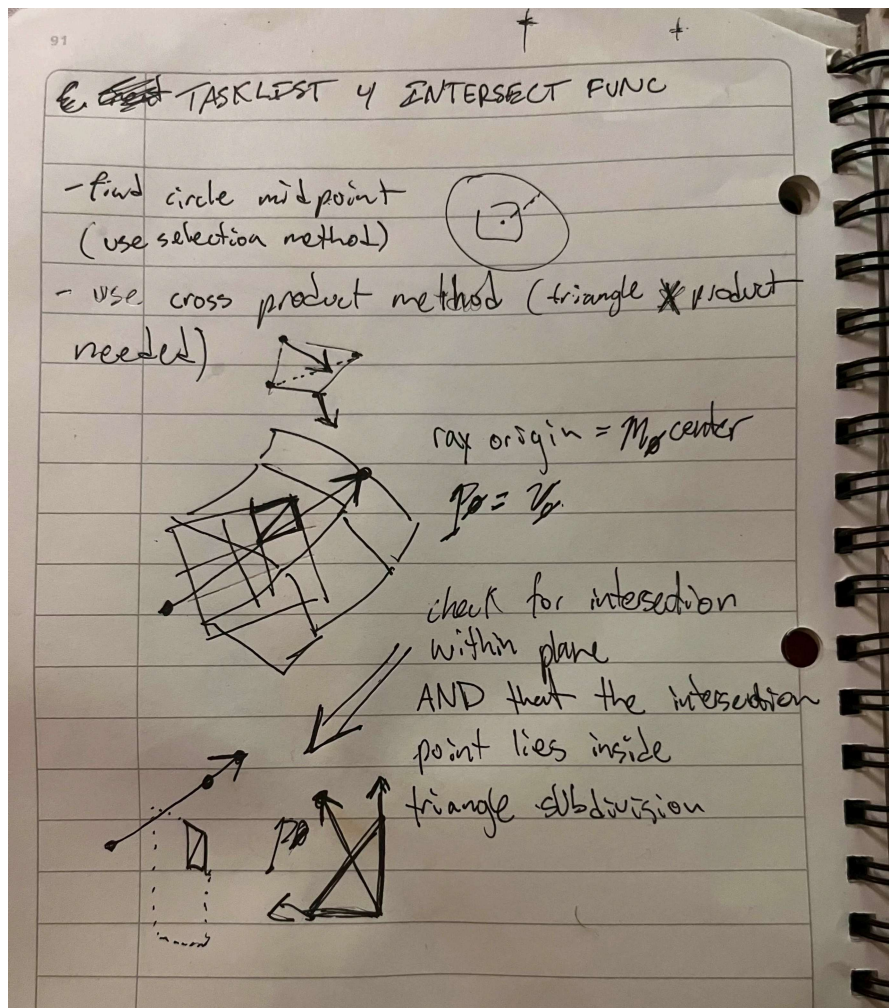
I later realized it wouldn't be so simple as I would have to check this for every target "sub-triangle" to find the shortest distance

Additional Info

Here is the script woking for me:



Here is my inal process:



References:

I used the maya documentation and lecture notes for this assignment, as well as tutorial notes for information on maya's object notation