CS5310_assignment4

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1 basic point, line, ellipse and circle

Here are the RESULTS of all the test case.

Figure 1: all given test result

2 extra 1: build a interface based on QT6

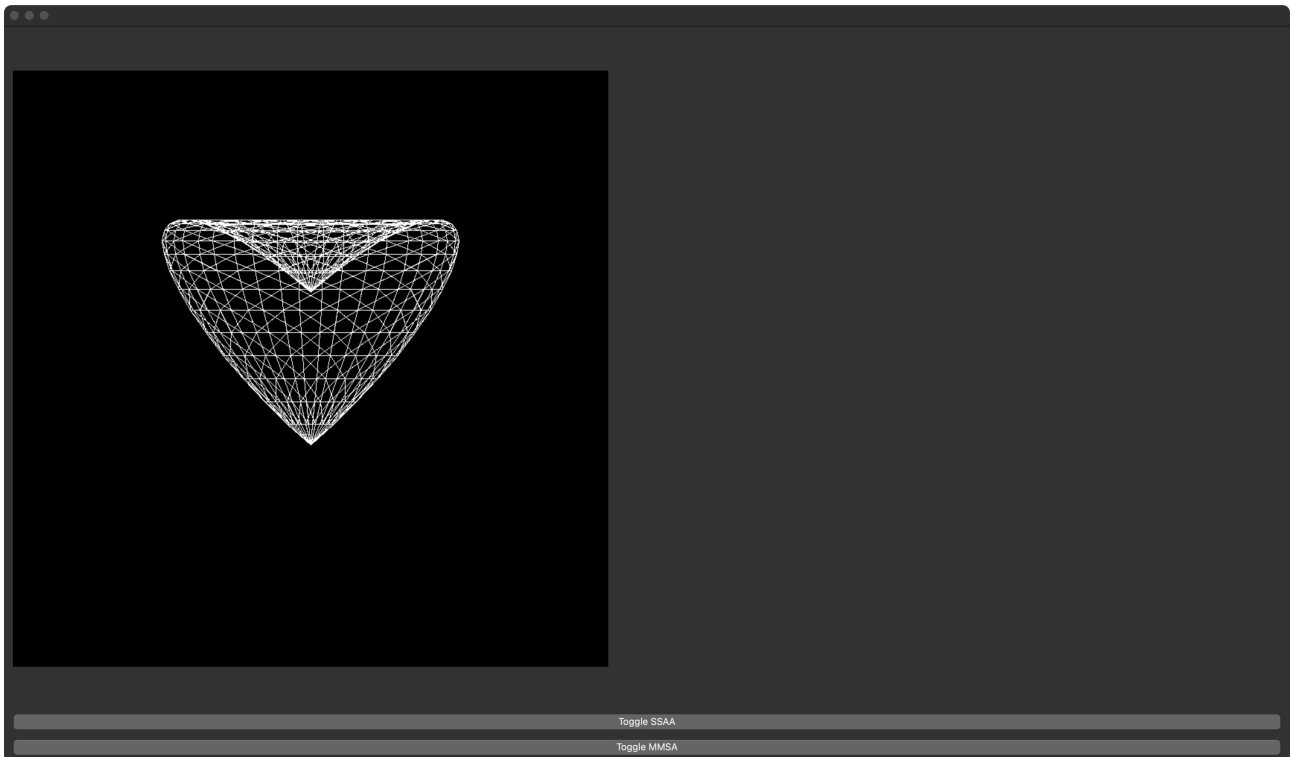This GUI could make any model animate.

Figure 2: the simple interface I have right now

3 extra 2: Anti-alias

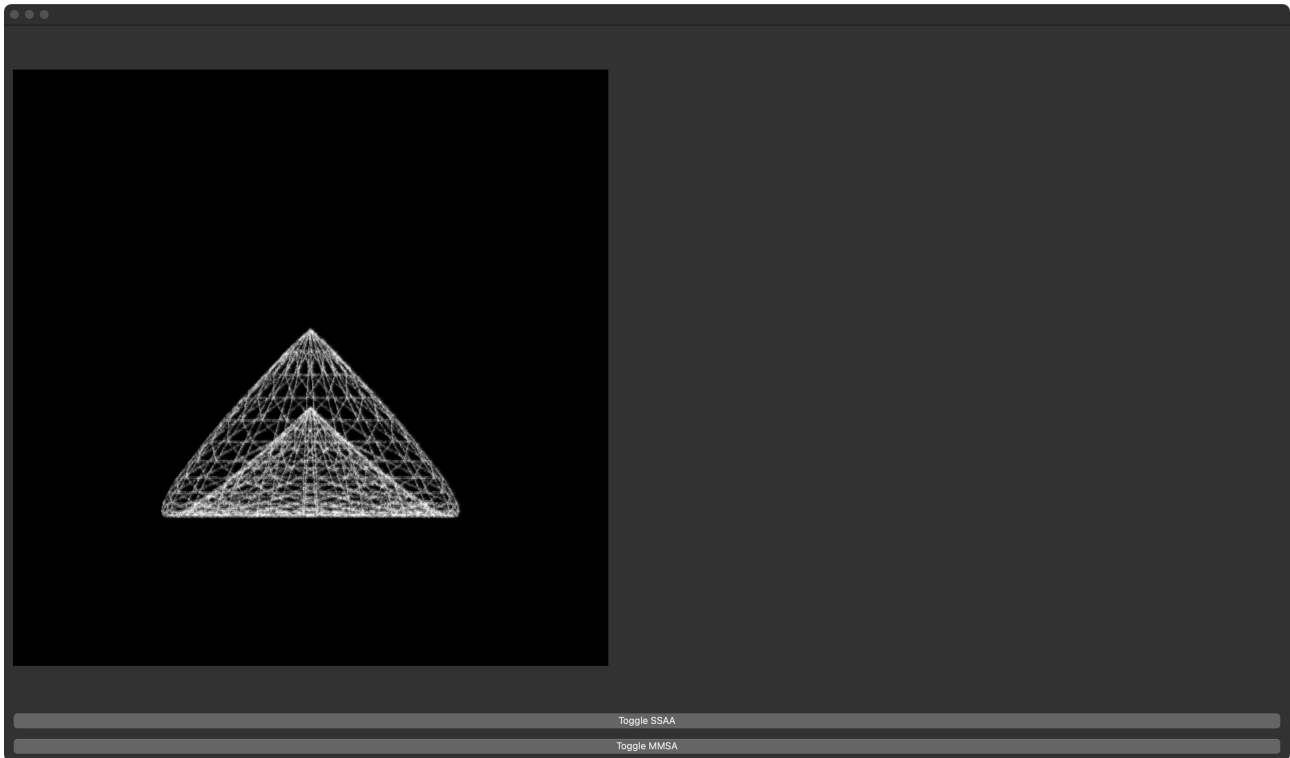Simply used ssaa, the efficiency is particularly low, can be subsequently optimized

Figure 3: the simple interface I have before and apply for SSAA

4 extra 3: animate the first test case by uniform random model

click here to access my gif

5 extra 4: animate the ball only for its vertex ont filled because no light and shadow method right now

click here to access my gif

6 summary

For this assignment mainly I updated the iteration of the sphere equations and used two new fill methods because I implemented a basic triangle fill method last week and learned a lot about qt, but a lot of it could be optimized, for example, drawing the sphere doesn't need to regenerate the vertex every time, it just needs to be updated but I need to relocate it this week. I don't have time, I will update the code next week.

7 reference

This assignment is based on my last assignment, so that means there are no additional references, if there are any it's just the official documentation for QT.