Name: Chih Hsuan Huang
Email: huanchih@oregonstate.edu
ID: 934554197
Video Link: https://media.oregonstate.edu/media/t/1_jp0qx7r7

CS 450/550 -- Fall Quarter 2024

Project #6

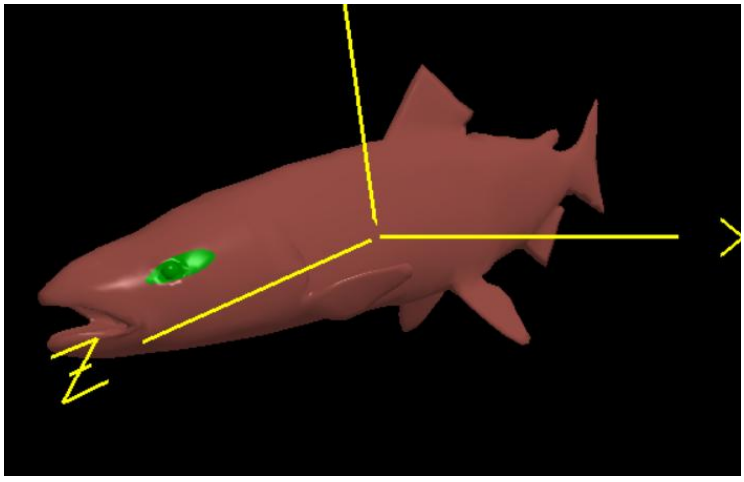
Shaders

Description:

In this project, I implemented a GLSL shader program to animate and render a swimming salmon. The vertex shader uses a sine wave function to modify the salmon's vertex positions, creating a wriggling animation. The amplitude, frequency, and speed of the animation can be adjusted in real-time via keyboard input. The fragment shader applies per-fragment lighting effects, taking into account the normal vectors and light sources. Additionally, a specific region of the texture coordinates s,t is used to render the salmon's eye area, using a different color for the eye and body.

The animation is working as I set it

My initial speed is set to 0.5f, and I can increase or decrease the speed by 0.5 using the keys. The initial amplitude is 0.5f, and I can increase or decrease it by 0.5f using the keys as well. My initial frequency is set to 0.5f, and I can increase or decrease it by 0.5f using the keys. This allows for flexible adjustment of the parameters, making the changes in the animation more noticeable.



Video Link: https://media.oregonstate.edu/media/t/1_jp0qx7r7