**Description**

This project was one of two school assignments (see Software/Hardware Rasterizer) during my first graphics programming course. Its goal was to introduce creating a 3D world from scratch, having zero beforehand knowledge about anything graphics programming related. It wasn’t easy, but it was very rewarding to see the slightest progress as I discover more about it. I continued the project in my free time to polish and refine it a bit more. I made it into a little framework, to make it easier to create new scenes with different objects to render. Numerous parts of code were revisited over time and profiled/optimized where necessary.

**Topics covered in this project:**

X

X

X

Though with all the progress, this Ray Tracer can definitely be expanded upon in terms of optimization or extra features such as Accelerated Structures, Indirect Lighting, Reflections, Soft Shadows and Anti-Aliasing to name a few.

**Most interesting code snippets:**

Rendering Loop:

Xxx

ShadePixelFunction:

xxx

BRDF’s:

xxx