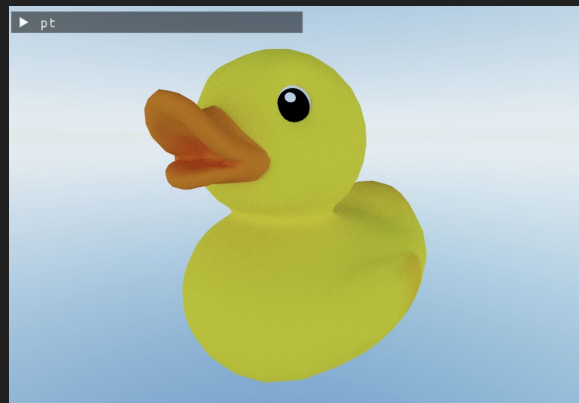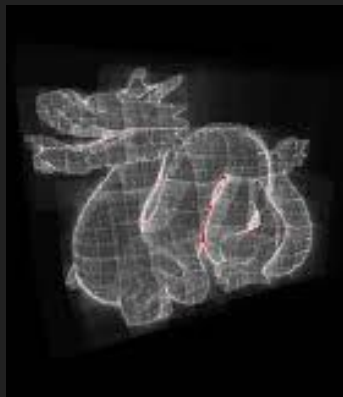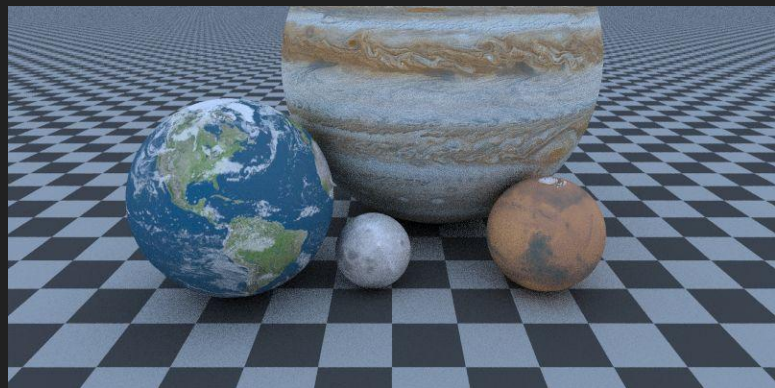# CS 375 Raytracer

By Hartley Blakey

Project Goals

- Load triangles from a gltf file
- Build a BVH around the triangles to speed up raytracing
- Raytrace the bvh in a shader
- I wanted to add basic textures

Example Target images

Current state

- Triangles loaded from gltf file
- Simple bvh, raytraced in a shader
- First set of texture coordinates hardcoded into vertex format
- No textures

Challenges / Wow moments

Triangles would randomly disappear from certain angles

Thought my BVH was broken

- Triangles fixed by making the epsilon smaller in the ray-triangle intersection code I copied
- I happened to choose a test scene that broke the midpoint split bvh I was using

I never tested large models, but ray tracing 2 100k triangle dragons was still cool