

Nicholas Ho  
CMPM163

### HW3 Part C

#### Part 1:

For my final project, I wish to implement crepuscular rays in Unity. I believe this effect can be achieved by having a light emitter of extreme intensity in the sky then decays as it spreads out. The iconic light beams can be achieved by calculating objects that could be obstructing the lights and using them as occlusion that is blurred outwards.

How I want to make my project special is having the render detect the light source in a skybox based on the whitest points on the texture and calculating a sphere that would fit in those white areas. Then the surrounds that would block the sphere's light source would be used to occlude and create the light beams.

Example:

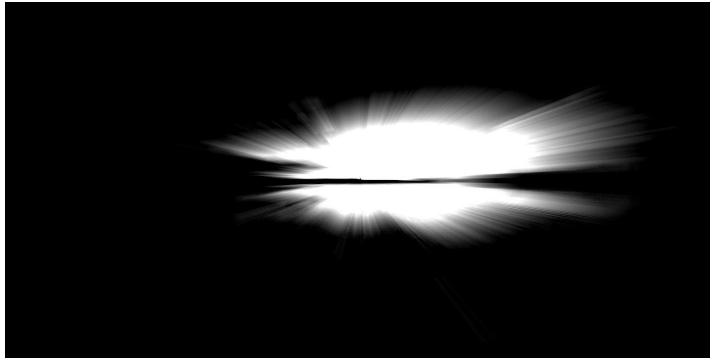
Original Skybox



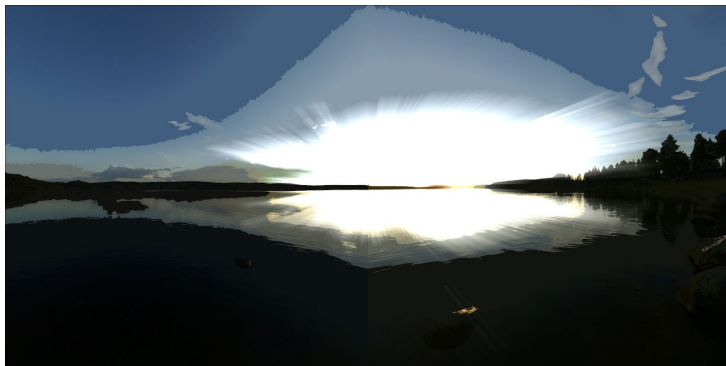
Find the light source and what is obscuring it



Calculate the light beams



Result after applying the new light source



Part 2:

I will be working with Jacob Le and Andrew Gwinner for the final projects