

CS148 Project: Raining Effect

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1 Introduction

The project is about to create a real-time raining simulation. The rain drop is of sphere shape, but with many variation. It can be stretched along the Y-axis because of the gravity. Also it can be of different size. Also rain drop has its lighting attribute which comprise of both reflection and refraction. What is more, raining effect needs to render thousands of rain drops, and simulate their physical movements and interaction between the rain drops.

2 Challenging

This raining effect is challenging in the following parts:

1. render a convincing rain drop is not easy. It needs to take into the light attributes into account.
2. render thousands of rain drop is huge. Also to simulate their physical movement is hard. For example, when two rain drop collide, they will become one. Also, when a big rain drop sliding down, it will leave behind a trail of small rain drops. To take all these into consideration and make it a convincing rain effect is challenging.

3 Reference

I was inspired by the link:<http://tympanus.net/Development/RainEffect/>

This demo is created in the web-gl. And I will try to create the similar effect in the OpenGL.

4 Milestone

1. render one convincing rain drop
2. render multiple rain drops with different size and shape.
3. add the physical movement to the rain drops