**Investigating a real-time Hydraulic Erosion Simulation to be used for terrain generation in games**

1 Introduction

This portfolio project will contain an investigation into real-time hydraulic erosion when creating realistic terrain in video games and a program that will use techniques found in the investigation to create a real-time hydraulic erosion simulation. Terrain is one of the most important aspects of emulating a realistic virtual experience whether it’s in a computer game, movie or simulation.

Talk about how used in games, movies and simulations

2 Literature Review

2.1 Terrain Generation

Generating realistic terrain for games is a long and time-consuming process. To solve this problem developers have found quicker and more effective ways for generating realistic terrain.

2.2 Water/Fluid Simulation

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2.3 Erosion Algorithms

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3 Design