Handa Zhang

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EDUCATION:

University of Southern California
Viterbi School of Engineering
Master of Science, May 2018
Major: Computer Science (Game)
GPA:3.9/4.0

Syracuse University
College of Engineering and Computer Science
Bachelor of Science, May 2016
Major: Computer Science
GPA: 3.6/4.0 Core GPA:3.9/4.0

SKILLS/COURSEWORK:

- Programming/Scripting Languages: (Proficient)C++, C#, (Familiar) Java, Python, PHP, SQL
- Relevant Coursework: Analysis of Algorithms; Game Engine Development; 3-D Graphics and Rendering; Engine Tool Development; Network Security
- Framework and tools: Unity 3D, Prime Engine, Qt, Perforce, Git

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RELATED EXPERIENCE:

Aspire Holdings Co.,ltd, Guangzhou, China. Software Engineer Intern, June - July 2015

- Participated in a team of 50 people to implement a web server for China Mobile.
- Designed and created a web page for users to view their data usage in PHP.

TECHNICAL PROJECTS:

Prime Engine:

University of Southern California, Fall 2016

- Contributed to this educational engine written in C++.
- Implemented bounding volume and culling, and a physics system with collision detection.
- Implemented a particle system with collision, managed a single vertex buffer and index buffer to store all particles, and did all computations with DX11 compute shader on GPU.

Material Generator:

- Developed a Python tool for specifying materials using a type-checked, node-based JSON configuration file
- Generates material specification file and fragment shader
- Helped in loading generated data into Prime Engine for use in-game.
- Made a python tool to integrate generated material into mesh data.

Spark:

University of Southern California, Fall 2016

- Top-down view adventure game written in Unity and C#.
- Built stationary and moving enemies with chase and shoot AI and various moves.
- Implemented a curved wall algorithm for generating curved wall meshes from sample points and tangent data.

Gravity Racer:

University of Southern California, Winter 2016

- Mobile racing game written in Unity and C#.
- Developed an algorithm for procedurally generating a racing track during gameplay.

Two Buttons Left:

Syracuse University, Fall 2015

- A text-based game for Ludum Dare 34(a game jam) written in Unity and C#.
- Created an event system for text-based game with a lot of dialogues and branches.

Open Source Project: Simplified GFS:

Sun Yat-Sen University, Spring 2014

- Implemented a simplified version in C/C++ of the Google File System which is a distributed file system with client, master server, and chunk server.