

Daniel Hua

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EDUCATION

Bachelor of Computer Science, (GPA 3.76)
Carnegie Mellon University, Pittsburgh, PA, Graduation Date: December 2016

Relevant Coursework:

- Building Virtual Worlds
- Parallel Computer Architecture and Programming
- Game Engine Programming
- Computer Graphics
- Research Topics in Game Design
- AI Representation and Problem Solving

SKILLS

Languages: Java, C# , CUDA, SML, L^AT_EX, OpenGL, C, C++, Lua, Javascript, Python
Software: Visual Studio, Git, Perforce, Unity, Photoshop, Blender, Maya
Hardware: Oculus, Leap Motion, HTC Vive, Google Tango, Arduino, Makey Makey

WORK / RESEARCH

OH!Lab - Current

- Research for SCIPR - Sensing Curiosity in Play and Responding. Developing cost effective ways of tracking state in board games to interface with AI.

Funkitron - Summer 2016

- Developed levels and features for the mobile game *Cascade*. Also worked on production pipeline optimization.

GAME PROJECTS

Robo Dragon Dash Turbo - Fall 2016

- Programmer for a racing game involving two physical rocking horses wired up to a Makey Makey. Featured in the ETC festival.

Take the Stairs Next Time - Fall 2016

- Programmer for a horror game about being trapped in an elevator. A VR experience for Oculus and Leap Motion.

Invert - Fall 2015

- An independent game project that has been Greenlit on Steam. A puzzle platforming game made in Unity about flipping colors and gravity.

Balance Board Racing - Fall 2015

- Project lead for a racing game for the Game Creation Society. The game is controlled using a cell phone accelerometer attached to a balance board.

CODING PROJECTS

Cellular Automata Cloud Renderer Optimization - Spring 2016

- Optimized a cellular automata based cloud simulation by using CUDA to parallelize the simulation on a GPU, achieving over 10x speedup through the course of the project.

Deferred Renderer - Spring 2015

- Wrote a deferred renderer using C++ and OpenGL. Uses shadow mapping to render multiple real time spot-light shadows.