Kelly Cho

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EDUCATION

Graduating May 2017

University of California, Berkeley
Bachelor of Arts, Computer Science
GPA 3.66
Selected Courses

- Computer Graphics
- Advanced Digital Animation
- 3D Modeling
- Sound and Music Computing
- Artificial Intelligence
- Algorithms
- Machine Structures
- Data Structures

EXPERIENCE

May 2016 – Aug. 2016

Software Engineering Intern
Penrose Studios — San Francisco, CA

- Designed and released an internal Unreal Engine plugin to enable real-time drawing in virtual reality (based in C++, extended with Blueprints)
- Routinely collaborated with the story, art, and animation teams to test and refine the tool's features
- Along with basic editor functionality (undo/redo, copy/paste, color selection, etc.), also added ability to import/export drawn geometry, transform geometry, and create storyboards
- Improved runtime of procedural mesh generation by~2x, resulting in framerate being stably over 65FPS

Jan. 2015 – May 2016

Computer Science Course Tutor
University of California, Berkeley — Berkeley, CA

- Ran weekly tutoring sessions with individual students to review data structure concepts
- Identified bugs in homework and project solutions and provided guidance as appropriate

PROJECTS

Pathtracer
C++, OpenGL

- Built a program to render realistically illuminated scenes with physically based materials while incorporating virtual camera lens distortion
- Accelerated render time by up to 4x with optimized bounding box algorithms and OpenMP

Geometry Processor
C++, OpenGL

- Implemented algorithms to generate curved surfaces, manipulate mesh edges, and subdivde geometry
- Wrote GLSL shaders that reflect light, map textures, and simulate water ripples

Cloud Painter
Javascript, WebGL

- Created a web application to interactively place clouds and render the scene in real-time
- Wrote a volumetric shader for the clouds that accounts for parameters like sunlight intensity, humidity, and cloud shape

Shape From Stereo Map
C

- Refactored an image processor that compares features in stereo images to compute depth
- Used OpenMP and SSE instrinsics to achieve 15x speedup on calculations

SKILLS

Programming Languages & APIs

- C++ ●●●
- Python ●●●
- Java ●●○
- OpenGL ●●○

Web

- HTML ●○○
- CSS ●○○

Misc.

- Autodesk Maya ●●●
- Adobe Photoshop ●●●
- Adobe Illustrator ●●●
- Unreal Engine ●●○
- Git ●●○
- Unix ●○○

Spoken Languages

- Korean ●●●
- English ●●●

- Member of Virtual Reality @ Berkeley
- Authorized to work in the U.S.