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Guanyu He

Objective

To pursue an animation or game related position.

Skills

Language C, C++, C#, Java, Javascript, PHP

Tools Unity3D, Maya, Photoshop, Flash, OpenGL

Education

2012–2013(Expected) **MSE in Computer Graphics and Game Technology**, *University of Pennsylvania*, PA, US.
Graduation expected in Dec.2013

2008–2012 **B.S. in Computer Software**, *Tsinghua University*, Beijing, China.

Experience

2013.7–2013.8 **Game Developer**, *Dead End*, *Game Design Practicum* Course, UPenn.
- A third-person video game where player is trying to escape from a city full of zombies.
- Designed the game concept and game story.
- Worked on the player's controller, game logic, animation design, art works and part of level design.
- Created several cool effects with particle system, glowing effect, etc.
- Used Maya to polish the animation clips from Mo-Cap session, as well as create pieces of animation clips.
- Skill utilized: Unity3D, Maya, in C#.

2013.9–2013.9 Course Project **Programmer**, *Cuda Ray Tracer*, *GPU Programming* course, UPenn.
- It is a ray tracer supporting a lot of nice features, and render realistic image
- Based on Cuda 5.5 for parallel computation, wrapped with C++ development
- Implemented features including refraction, DOF blur, soft shadow, anti-aliasing, area light, etc.
- Develop a hacked ray-tracer method to replace the slow recursive process while return better result.
- Skill Utilized: C++, Cuda

2013.1–2013.5 Course Project **Programmer**, *Fast Path Tracer*, *Advanced Topic in Computer Animation* course, UPenn.
- It is an authoring Maya plugin which can accelerate path-tracing process by 20times faster.
- Based on *Reconstruct Indirect Light Field for Global Illumination*, Lehtinen et al., Siggraph 2012.
- Worked on algorithm implementation and refining.
- Used BVH and shadow-map technique to polish the source algorithm.
- Skill Utilized: Maya, C++, OpenGL

2013.1–2013.3 Course Project **Programmer**, *Cloth/Smoke/Fire simulation*, Physics-based Animation, UPenn.
- Use physics methods to simulate common objects in real life. The methods include mass-spring system, position-based animation, fluid-simulation and levelset method.
- Added some new features to polish the animation result.
- Skill Utilized: C++, OpenGL, math and physics