Zoltan Jing Gameplay & Graphics Programmer

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EDUCATION

Carnegie Mellon University, Entertainment Technology Center (ETC)   **Pittsburgh, PA**
Master of Entertainment Technology   *Expected May 2021*

Shanghai Jiao Tong University   **Shanghai, China**
Bachelor of Engineering in Software Engineering   *Jun 2019*

- Relevant courses: Game Design and Programming, Computer Graphics, Human-Computer Interaction, Introduction to Computer Systems, Computer System Engineering, Algorithms, Operating System

SKILLS

Languages: C#, C++, C, ShaderLab, GLSL, Java, SQL, Lua, Python

Tools & Platforms: Unity, Git, Perforce, HTC Vive, Linux, MySQL

Fields: Game Development, Real-time Rendering, Virtual Reality

EXPERIENCE

Digital ART Laboratory, SJTU   **Shanghai, China**
Research Intern in "AR HUD in Car Windscreen" project   *Jan 2019-May 2019*

- Worked on building virtual city environment, reconstructing real campus environment and SLAM

Shanghai Game Reign Network Technology Co., LTD   **Shanghai, China**
Programmer Intern at Mobile Game Department   *June 2018-Dec 2018*

- Took part in the development of a football game called "The Best Lineup 2" and worked on animation, rendering and UI

ACADEMIC AND PERSONAL PROJECT

Building Virtual Worlds | ETC project-based course   **Pittsburgh, PA**
Programmer, Designer   *Fall 2019*

- Designed and developed games in 2-3 weeks, worked in teams, 5 rounds
- Cooperated with people from different roles and backgrounds, brainstormed, built prototypes and swiftly iterated
- Used non-traditional input devices such as HTC Vive, Oculus, Magic Leap, 3dRudder, etc.
- Worked on gameplay coding, environment building, visual effects and level designing

Ocean Surface Simulation and Rendering | Thesis Production   **Shanghai, China**
Programmer   *Mar 2019-Jun 2019*

- Implemented ocean surface wave via FFT-based method and optimized it with tessellation
- Wrote an ocean surface shader with lighting, reflection, refraction, ocean depth influence, fake subsurface scattering
- Implemented a simple version of boat buoyancy and boat wake

Deer | PC Game (Unity)   **Shanghai, China**
Programmer, Designer   *Fall 2018*

- A role play game controlled by voice completed within 2 months by 2 people
- Implemented all story-telling part and cut-scene with Unity timeline and Cinemachine
- Constructed the game process management system, interactive objects system and 3D UI panel
- Add VFX in the game including the shining deer effect, volumetric light

3D Function Visualization | Educational Game (Unity & HoloLens)   **Shanghai, China**
Programmer   *June 2018-July 2018*

- Took charge of 3D mesh rendering and optimizing, HoloLens interaction designing and implementing
- Implemented several different style of mesh shading, including wireframe shading and cartoon style shading

Firefly | Computer Graphics Project (C++ & OpenGL)   **Shanghai, China**
Personal Project   *Jan 2018*

- Implemented a swarm simulator that showed the swarm behavior under the constraint of one attractive point
- Rendered massive particle system and second level particle system with OpenGL
- Implemented basic light shading with the Blinn-Phong Shading Model and Bloom post-processing effect