

ZIBO YE

Entertainment Technology Center
Carnegie Mellon University, Pittsburgh, PA
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WORK EXPERIENCE

Apple

AR/VR Software Engineer Intern

San Jose, CA

May 2022 – Aug 2022

- Developing RealityKit framework and AR technologies
- Designed an internal tool that helps with the testing workflow using C++

Thunder Fire Studio, NetEase Corp.

Game Engine Intern

Hangzhou, China

July 2019 – Aug 2019

Game Engine Programmer

July 2020 – July 2021

- As a Graphics Programmer: Implemented massive GPU-based real-time fluid simulation in *Justice* (逆水寒).
 - Implemented using Position Based Fluid Simulation and Screen Space Rendering method, integrated into the custom Ark Game Engine using C++, DirectX 11&12 and HLSL compute shaders
 - Added features such as Color Blending and Screen Space Collision
 - Optimized to run on mainstream GPU smoothly without hurting performance drastically
- As a Technical Artist: Wrote many HLSL shaders for artists to use, including a widely adopted universal shader
- As an Engine Programmer: Implemented new features in the custom Ark game engine using C++, including:
 - A new model particle system and a sub-effect system in the effect system tailored to artists' need
 - Fuzzy Search, AutoSave and File History in internal Effect Editor and Model Editor
 - Fixed graphics and engine bugs

EDUCATION

Carnegie Mellon University

Master of Entertainment Technology

Pittsburgh, PA

Sept 2021 – Present

- In the first semester, I implemented one MR game demo (HoloLens 2) and three VR game demos (Quest 2) using Unity and C#, each demo developed rapidly in two weeks with a team of five.
- In the second semester, I worked on a VR biofeedback meditation project.
- Highlighted Courses:
 - Physically Based Rendering: A+

Peking University

BS in Intelligence Science and Technology

Beijing, China

Sept 2016 – June 2020

- GPA: 3.59/4.0; admitted on basis of performance on national college admissions exam (35/169100, top 0.02%)
- Highlighted Courses:
 - Computer Graphics: 87/100
 - Learning Python with Data Mining: 93/100

RESEARCH EXPERIENCE

Center on Frontiers of Computing Studies, Computer Science Dept., PKU

Research Intern to Professor Baoquan Chen, Executive Director

Beijing, China

Nov 2019 – June 2020

- Participation in weekly seminar & group discussion on Computer Graphics
- Undergraduate Graduation Project on surveying Ray Tracing Technique in Game Production

Laboratory for Affective Intelligent Robotics, Computer Science Dept., PKU

Research Intern to Professor Tao Wang

Beijing, China

May 2018 – Oct 2019

- Participated in weekly seminars on Computer Vision and Deep Learning
- Finished the Undergraduate Research Intern Project “Multi-scale Real-time Pose Estimation in webcam”

ADDITIONAL INFORMATION

Computer and Language Skills

- Programming: Proficient in C, C++ and HLSL, Competent in Python, Swift, C# (Unity) and Lua
- Knowledge in Computer Graphics, Game Engine Architecture, and Unity Engine Game Development
- Fluent in English and Mandarin, TOEFL: 107 (Best Score), GRE: 322+3.0

Interests

- Enjoy playing high-fidelity games and studying the techniques behind the scene
- Swimming, Movie, Anime