

ZIJING LIU

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EDUCATION

University of Southern California, Los Angeles, CA May 2018
Bachelor of Science: Computer Science (Games), Minor: Statistics GPA 3.9/4.0
Relevant Coursework:

- Algorithms/Computing Theory
- Video Game/Game Engine Programming
- Web Development
- Operating System
- Computer Networking
- Computer Graphics

EXPERIENCES

Course Producer, Introduction to Operating System Course at USC Fall 2016 - Current

- Assisted the Professor to develop the assignment and exam materials that evaluate students' understanding of core operating system concepts and implementations.
- Presented the discussion sections of PintOS and supported students with their OS projects.

Gameplay Engineer, Gouda Games Studio (Shenzhen, China) Summer 2015

- Researched the applicability of the existing matching algorithms of Elo and TrueSkill, and implemented the modified version of the quick matching feature.
- Developed and conducted balance tests between micro-transactions and built-in crafting system.

PROJECTS

Treasure Hunter, Hololens Game Jam (C#/Unity, Holotoolkit) Fall 2016
A mixed reality application with which users could put virtual objects into their real world and share their experience with others around. It is developed within 24 hours and titled as *The Best Use of Mixed Reality* for the USC Annual Holo Game Jam 2016.

- Implemented the real occlusion by rendering transparent mesh for spatial mapping.
- Designed and built input control that allows users to tap in air to place virtual objects in the real world and interact with the application through their voices.

This University of Mine, Group Project (C++/Unreal 4, Gameplay Programming, AI) Spring 2016
A 3D simulation game of the university management with features of the building system and embedded AI. Being the lead designer and programmer of this team of three people:

- Designed the overall system of the game and the technical class diagram of the entire game program.
- Implemented the building system with the features of building transformation and rotation, auto aligning check, auto overlapping check, and 3D dynamic preview.

StoryCreator, Group Project (Java, Swing, Sockets Programming, MySQL) Fall 2015
A text game engine that helps users, especially nongame developers, to easily create their graphical story games without any coding experience. Being the lead of this team of six people:

- Designed the primary system structure and implemented the fundamental gameplay logics.
- Headed the optimization, and dramatically improved the CPU usage and achieved bug-free.
- Managed group work, updated project schedule, and finalized complete documentation.

TECHNICAL SKILLS

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- Programming Languages: C/C++, C#, Java, Python
 - Utility Tools: Vuforia, Holotoolkit, OpenGL, DirectX
 - Operating Systems: Mac, Windows, Unix, Linux