

Tianyi Zhao

Software engineer and gameplay programmer

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Portfolio: <http://tianyizhao.com>

Education	Carnegie Mellon University (CMU) Master of Entertainment Technology <ul style="list-style-type: none">Computer Graphics, Building Virtual Worlds, Visual Story, Music Theory	Pittsburgh, PA 09/2017 – 05/2019
	The Hong Kong Polytechnic University (PolyU) BSc in Internet and Multimedia Technology <ul style="list-style-type: none">PC Game Development, Object-Oriented Programming, Mobile Application Development, Web Systems, Linear Algebra	Hong Kong, China 09/2013 – 05/2017
	University of Central Florida (UCF) Department of Computer Science (exchange) <ul style="list-style-type: none">Communication Networks, Computer Security	Orlando, FL 09/2015 – 12/2015
Skills	Programming language: C#, C++, JavaScript, SQL, Java Tools: Unity, Visual Studio, GitHub, Perforce, Electron, Microsoft Office 3D modeling in Autodesk 3ds Max Languages: English (proficient), Chinese (native), Cantonese (intermediate) Music composing and editing, piano performance	
Experience	CMU Perceptual Computing Lab Research Assistant Unity plugin developer for <u>OpenPose</u> <ul style="list-style-type: none">Developed the OpenPose Unity demo using UDP network for CVPR 2018Developing the Unity plugin for open-source C++ library OpenPose	Pittsburgh, PA 05/2018 – present
	Halite Games Studio Co-founder, Level Designer <ul style="list-style-type: none">Designed all 60 levels for hard-core mobile puzzle game “Ripple Blossom” which gained over 100,000 downloadsAwarded “Game of the Day” on App StoreWon the “Best Theme Integration” Award in Global Game Jam 2017 Hong Kong.	Hong Kong, China 03/2017 – 03/2018
Academic Projects	Simtopia (Unity VR gameplay programming) Lead Programmer <ul style="list-style-type: none">Cooperating with EA Maxis Studio and developing VR gameplayImplementing a 3D modular building system	Pittsburgh, PA 09/2018 – 12/2018
	Scotty 3D (C++ rendering and animating) CG Programmer <ul style="list-style-type: none">Implemented ray tracing rendering system with diffuse and glass materialsImplemented skeletal animation system with skinningImplemented mesh editing operations including extrusion, subdivision etc.	Pittsburgh, PA 01/2018 – 05/2018
	Alice’s Adventure (Software development) Front-end Programmer, Technical Director <ul style="list-style-type: none">Developed a 2D game making tool to teach programmingImplemented the tool editor in Electron and Node.js using MVC modelImplemented the project file saving and loading systemDesigned system architecture and integrated sub-systems including the editor, the compiler and the engine	Pittsburgh, PA 01/2018 – 05/2018
	Building Virtual Worlds (Gameplay programming) <ul style="list-style-type: none">Developed games in XR (HoloLens, Oculus, VIVE) using UnityDeveloped multiplayer game experiences	Pittsburgh, PA 09/2017 – 11/2017
	Computer Game Project (Low-level game engine) <ul style="list-style-type: none">Implemented a rhythmic game using OGRE 2.1 in C++Rendered and animated 3D characters in low-level rendering systemImplemented message communication between multithreads	Hong Kong, China 01/2017 – 05/2017