

HONGJIN YU

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WORK AND EDUCATION

Carnegie Mellon University, Robotics Institute Graduate Student	2012 - 2013
Indie Game Development Programmer, Designer	2013 - 2016
LYRobotix CO LTD Virtual Reality Software Engineer	2016.9 – 2016.12
Oppen Future Tech LLC Computer Vision and Graphics Researcher	2017.2 – 2017.7
Southern Methodist University, Guildhall Graduate Student, Programming Track	2017.8 – Present

RESEARCH

THESIS PROJECT: Implementation of Alpha Zero and hopefully publish a paper 2019
Try different methods and improve upon the original paper.

PROJECTS

Robots from Scratch – Various Robotics Projects Programmer, 1 of 3 Developers Building Line following robots, quadruped robots and an RGB persistence of vision wand from scratch. Designing and building power supply, motor controller, sensors, PWM generation, LED driver chip control, 32-bit microcontroller programming (Stm32 Arm cortex-m3).	2009-2012
LeafCraft – Art generation App Programmer, Designer, Solo Project App published on Google Play and Apple Store. Allows users to interactively design and create procedurally generated leaves. Utilized node-based material generation.	2013-2015
Digital Rain - VR scene for the Samsung Gear VR Programmer, Solo Project Created digital rain droplets inspired by the Matrix movies. Majority of effect created in the shader.	2016
Pinball Escape - Mobile Puzzle/Reaction Game Programmer, 4 Developers. Unity Developed pinball physics, bouncer logic, scoring logic, UI, SFX	2017
Interstellar Racing League - Arcade Racing Game SFX Lead - 60 Developers. 1 of 3 SFX Specialists. Unreal Made boost effect, energy barrier effect, heat distortion effect. Worked closely with the artists, giving them specific requirements for meshes and textures to achieve the desired special effects. Effects were made in the Unreal material editor and particle editor.	2018
Circuit Slinger – VR Rhythm Shooting Game Technical Lead – 9 Developers. 1 of 3 Programmers. Unreal, Oculus, Vive Made all the game logic for the original prototype. Mentored the programmers during the development phase. White board problem solving. Reviewing others code. Sprint planning.	2018

LANGUAGES

- C++
- Python
- C#
- Lua
- XML
- OpenGL/GLSL

SOFTWARE

- Visual Studio
- Jupyter Notebook
- *Tensor Flow*
- *Pytorch*
- Git
- Unity 5
- Unreal Engine 4
- Oculus Rift
- HTC Vive
- Perforce
- MS Office
- Photoshop
- Substance Designer
- Blender 3D

SKILLS

- Software Engineering
- *Deep Learning*
- Rendering
- VR Development
- Unreal Blueprint
- Linear Algebra
- Multi-Threading
- Networking
- Agile Development
- PCB Designing
- Microcontroller Programming
- Basic Sound & Video Editing