Yiwen Zhang Software Engineer

yiwenz@andrew.cmu.edu
+1 (412) 304 6953
yiwenz.me

Education

Master of Entertainment Technology, Carnegie Mellon University, Entertainment Technology Center (ETC)   2016 - Dec 2017
(Expected)

Bachelor of Computing, National University of Singapore (NUS), Singapore   2012 - 2016
Relevant Courses: Graphics Rendering Techniques, Computer Vision and Pattern Recognition, Game Development, Multimodal Processing in Mobile Platforms

Skills

Programming   JavaScript, Python, SQL, C#, C++, OpenCV, OpenGL, Unity, Node.js, Android SDK, Amazon Web Services
Design   Photoshop, Illustrator, Premiere Pro, After Effects, Maya, SketchUp, Blender, Pro Tools, Audition, Logic Pro X
Others   Project Management, Stage Lighting, Filmmaking, Special Effects, UI/UX, Quick Prototyping

Experience

Full Stack Web Developer (Part-time) at PigeonLab, Singapore   2014 - 2016

- Developed a web-based automation tool using Node.js, AngularJS and Amazon Web Services
- Created more than 100 customized skins for their web application using the automation tool

Freelance Web Developer, Singapore   2013 - 2015

- Developed Room booking system for Tembusu College with Flask (Python)
- Developed Singapore's leading fashion website (styleXstyle.com) with AngularJS

Projects

Building Virtual Worlds, ETC, Programmer, Sound Designer and Producer   Fall 2016

- Building Virtual Worlds (BVW) gives small teams of students two weeks to create a virtual world
- Experimented with multiple platforms such as HTC VIVE, Oculus Rift + Leap Motion and Eye Tracker
- Picked up sound design and composed my first melody using Logic Pro X
- Developed quick prototyping skills, such as paper prototyping

3D Reconstruction in Tiny Environments, NUS, Researcher   2015 - 2016

- Researched on an algorithm that reconstructs depth information of the surrounding environment using single-lens camera with small motion
- Implemented, extended the algorithm in C++ with Ceres Solver
- Open-sourced the implementation with clear documentation
- Prototyped the potential application of the improved algorithm in robotic navigation and constrained space investigation

A Revenge, NUS, Director   2016

- Directed a short film that illustrates an "Alice in Wonderland" style world
- Designed and Implemented the CG objects using Blender and Maya
- Composited the CG objects with the green screen footages and the miniature scene using After Effects

FaceMorpher, NUS, Developer   2015

- Implemented a mesh-based face morphing algorithm with OpenCV
- Design and developed a web-based user interface in AngularJS

Taptask, NUS, Android Developer   2015

- Designed an Android mobile application that detects and responds on tap patterns on phone surface.
- Integrated the signal processing algorithm with the Android framework.

Multimedia Design in play *Kopitiam*, Drama Box, Multimedia Designer   2015 - 2016

- Designed a projection background with fluid simulation effect of Chinese characters
- Implemented the effect using WebGL and Adobe After Effects

Game Wormhole, NUS, Game Developer   2015

- Developed the maze running game in Unity
- Implemented a random maze generation algorithm using Depth First Search algorithm