

Leong Guo Wei

Game Designer, Software Engineer
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Working Experience

Software Engineer (Game Development)

ST Electronics Training and Simulation Systems

JULY 2018 – CURRENT

Working on development of Augmented Digital Sandtable in Unity3D

- Designed and develop the 2D visualization portion.
 - Designed and implemented the workflow and interface.
 - Implemented certain features that helps with the defense aspect of the Sandtable.
 - Implemented certain features that helps with the commercial aspect of the Sandtable.
- Designed and develop the 3D visualization portion.
 - Implemented Terrain data for elevation and relief of the map.
 - Implemented 3D models of building for better visualization
 - Developed Plot-mode which allows users to have a better view of a specific 3D building model via close-up zoom and slicing of the model to have an interior view.
 - Sync the viewing area of the map to the 2D visualization portion.
- Designed and develop the VR visualization portion.
 - Develop using HTC Vive Pro to allow users to move around the map via physical walking or teleportation and view the 3D buildings in actual scale.
 - Link to 2D to allow users to place themselves onto specific locations on the map.
- Designed and develop the AR visualization portion.
 - Develop using DreamGlass to allow users to visualize the map in 3D on the table itself.
- Developing on porting to Hololens 2.

Develop A320 Preflight Walkaround Check for Mirage Solo and later port over to HTC Vive with Tobii Eye Tracker in Unity3D

- Design and implement the controls of the simulator using Daydream Controller.
- Design and implement UI and visual cues to aid in the training and familiarization of the walk around check.
- Ported to using HTC Vive with Tobii Eye Tracker to make use of the eye-tracking feature to further improve the training experience.

Develop A320 Preflight Cockpit Check for HTC Vive with Tobii Eye Tracker in Unity3D

- Design and implement guiding arrows as visual cues to guide the users on where to look.
- Make used of the eye-tracking feature to confirm that the user did look and follow the visual cues.

Worked on multiple prototypes involving AR/VR in Unity3D

Game Designer, Intern

Cloudzen

SEPTEMBER 2017 – DECEMBER 2017

Design and developing a shooting racing game and a 3rd person shooter game in Unreal Engine 4 to be run on mobile devices using streaming technology.

Designer, Intern

ST Electronics Training and Simulation Systems

MAY 2017 -AUGUST 2017

Worked on an undisclosed project and a VR F1 Pitstop Training Simulation using HTC Vive and Xsense motion capture in Unity3D

PROJECTS

Game Designer, Level Designer— *Tiny Sky*

DigiPen Institute of Technology Singapore

SEPTEMBER 2016 - APRIL 2017

Project: A VR game which you must land all the planes safely and avoid any obstacles along the way.

- Planned and designed the layout of the level that increases in difficulty after each level by having new mechanics in each of them, giving the players a new challenge in each level.
- Designed the look of the level which helps brings the feel of the players playing as a kid, allowing the players to think out of the box when coming out with solutions when playing the levels.
- Scripted gameplay on a custom engine using custom scripting language.

Game Designer, Tech Lead — *Lys*

DigiPen Institute of Technology Singapore

SEPTEMBER 2015 - APRIL 2016

Project: A side-scrolling single player adventure and puzzle game that uses light to clear the path and get out of the cave safely.

- Planned and scripted the behavior of the main character Lys and the two types of enemy in the game that allows the designers to tweak and modify the behavior with ease.
- Worked on a system for player to keep track and view unlocked contents that player gain in the game, allowing players to know their current progression in the game.

Game Designer, Lead Designer— *Galactic Abduction Team*

DigiPen Institute of Technology Singapore

JAN 2015 - APRIL 2015

Project: An isometric single player stealth game where your mission is to abduct key leaders from a research facility.

- Planned and designed the level of the game, which teaches the player about the mechanics of the game effectively, which allows player to be equipped with the skills required to accomplish harder challenges of the later level.
- Applied the sub mechanics of the player such as throwing of objects and pushing of furniture, which increases the depth and interaction of mechanics as they intertwined.
- Designed the behavior of the different types of enemy to make the game less monotonous with different types of enemy.
- Designed a mobile version of the game in parallel to the PC version of the game which help the game reach out to the larger audience.

EDUCATION

Bachelor of Arts in Game Design

DigiPen Institute of Technology Singapore

SEPTEMBER 2014 – DECEMBER 2017

Diploma in Interactive and Digital Media

Republic Polytechnic

APRIL 2009 - MAY 2012

SKILLS

Technical

- Unity3D
- Unreal Engine 4

- Adobe Photoshop
- Adobe Illustrator
- Adobe InDesign
- Autodesk 3ds Max

- Microsoft Word
- Microsoft PowerPoint
- Microsoft Excel

Game Design

- Knowledge on gameplay design
- Able to produce prototype fast.
- Designing and creating contents for gameplay.

Awards

- Best Freshman Game – 2015 DigiPen Game Awards Singapore
- Best 3D Visual Design – 2015 DigiPen Game Awards Singapore
- Most Innovative Design, 3rd Place – 2017 DigiPen Game Awards Singapore
- Best 3D Visual Design, 3rd Place – 2017 DigiPen Game Awards Singapore
- Best Junior Technology, 2nd Place – 2017 DigiPen Game Awards Singapore
- Best Junior Game, 2nd Place – 2017 DigiPen Game Awards Singapore