

# Xiangyu (Shawn) Sun

Gameplay & UI/UX Programmer

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## Education

**Carnegie Mellon University (CMU), Entertainment Technology Center (ETC) - Pittsburgh, PA**

- Master of Entertainment Technology 08/2018 – 05/2020
- Lead Tech Teaching Assistant for Building Virtual Worlds, Fall 2019

**Shandong University (SDU), School of Software Engineering - Shandong, China**

- Bachelor of Software Engineering - GPA:3.79 09/2014 – 07/2018

## Skills

**Programming:** C#, Java, C++, Lua, Python, SQL, OpenCV, OpenGL, HTML, Unity 3D, Unreal Engine 4

**Tools:** Visual Studio, Adobe Photoshop, 3D Studio Max, Linux/Unix, Adobe Premiere, MATLAB

**Design:** Level Design, Rapid Prototyping, System Design, Paper Prototyping, Documentation

**Platforms:** HTC Vive, Meta-II, Kinect, Oculus, C.A.V.E., HoloKit, Android, iOS

**Version Control:** Perforce, GitHub, BitBucket

## Experience

**Holokit, Software Engineer Intern, Gameplay (Unity, C#) - Silicon Valley, CA** 06/2019 – 08/2019

- Worked on a storytelling-based interactive experience on a new MR platform.
- Worked with designer and programmed the interaction logic between different type of objects.

**Netease Game, Software Engineer Intern, UI/UX (Cocos2d, Lua) - Hangzhou, China** 09/2017 – 05/2018

- Worked with artists and constructed all of the UI modules (screen, panel, grid, list, etc.) for the beta version.
- Worked with designers and programmed the in-game battle animation logic.

**Interdisciplinary Research Center (IRC) - Shandong, China**

01/2017 – 09/2017

**Graduate Research Assistant (OpenCV, C++)**

- Researched realistic image composite based on machine learning and successfully published the paper as *Realistic Image Composite with Best-Buddy prior of Natural Image Patches* in IEEE ICIP 2017.

**ING Studio, SDU, Project Leader & Lead Programmer (Unity, C#) - Shandong, China**

12/2016 – 04/2017

- Lead the project team on the VR reconstruction of reality buildings' inner structure.
- Programmed the moving logic and built-in interactive slides logic.

## Academic Projects

**Koe (Sims Alexa), Lead Programmer (Alexa Lambda, Python) - Electronic Arts**

08/2019 – present

- Prototyped a unique audio interactive experience of Sims on Amazon Alexa.
- Worked with the EA Sims team and established the basic framework for the application.

**Exodus (SLG), Interactive Programmer (Unity, C#) - ETC, CMU**

01/2019 – 05/2019

- Independently responsible for all of the gameplay prototypes' development.
- Programmed the navigation logic algorithm and defined all the in-game data structures and interfaces.
- Documented the tech document showing the code & data structure for the next dev team of this game.

**Building Virtual Worlds, Programmer (Unity, C#) - ETC, CMU**

08/2018 – 12/2018

- Collaborated in a team of five, which includes artist, sound designer and programmer, to create rapid prototypes of entertainment experience on many new platforms within one to two weeks.

## Personal Projects

**May I please go home? (Global Game Jam 2019), Gameplay Programmer**

01/2019

- Designed the core gameplay and programmed prototypes, Boss's AI, shaders, level's FSM and BGM in game.

**Put Down Your Gun (Game Hackathon), Programmer, Designer**

10/2017

- Designed and programmed two different battle stages, enemies' AI mechanism, and character's animations.