

# 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: 3.79/4 **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

### **Carnegie Mellon University, Lead Tech Teaching Assistant (Unity, C#) – Pittsburgh, PA 09/2019 – present**

- Work with other tech TAs to help students solve hardware problems on different MR platforms
- Give and organize programming workshops (new features of Unity Engine, advanced programming skills.)

### **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 types of objects.

### **Little Mochi, Lead Software Engineer, Gameplay (Unity, C#) – Pittsburgh, PA 05/2019 – 07/2019**

- Worked closely with design and art teams to realize their creations and new game features
- Worked together with back-end team to perform server testing and design the database schemas.

### **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.
- Cooperated with designers and programmed the in-game battle animation 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.

### **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.

## 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.