**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**

***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 Moochi*, 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.

***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.

***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.

***Put Down Your Gun* (Game Hackathon), Programmer, Designer 10/2017**

* Designed and programmed two different battle stages, enemies’ AI mechanism, and character’s animations.