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**
- Relevant Courses: Object-oriented Development Technology, Computer Graphics, Game Design

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.

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)*, Research Assistant (C++)** - *Shandong, China*   **01/2017 – 09/2017**
- 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.