Jiayu Liu

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Software Engineer in Gameplay, Tools and VR. Solid Skills in Unity3D (2 years), C# and C++.

EDUCATION

M.S. Game Science and Design, Northeastern University, Boston   Dec. 2017

B.S. in Computer and Cognitive Science, Xiamen University, China   July 2014

Academic Exchange in **Computer Science,** National Chiao-Tung University, Taiwan   Jun. 2012

Related Courses: C and C++ Programming, Data Structures, Algorithms, Level Design, Game AI, Computer Graphics, Building Game Engines, Eye-tracking Studies, Sound Design.

SKILLS

Languages: C#, C/C++, JavaScript, HTML5, Python, Java/Android.
Experienced Game Programming and Prototyping with Unity3D/UE4: Physics, Graphics, UI, Animation, VR.
Working Knowledge in Unity3D and Oculus. Projects in AR, Computer Vision and SDK Development.
Other: Git; Google VR SDK, OpenVR, Vuforia, Leap Motion, Arduino, Eye-tracking; Maya; FMOD, Pro Tools.
Volunteer at GDC, SIGGRAPH and Boston FIG.

EXPERIENCE

VR Developer Intern | Tipping Point Media, LLC   June 2017 – (Est.) Sept. 2017
- Contributing interaction designs and building the experience in Oculus using C#/Unity and Oculus Touch.
- Implementing gameplay features and tools, including but not limited to the major shader effects, animated shaders, physics interactions, interactive UI (in VR) and dynamic spatial audio in maintainable code.

Programmer, Designer | Fold It - Biochemistry Educational Game   Jan. 2017 – Apr. 2017
- Designed and implemented tutorials in C++ for new features in the game, which is played by 50,000 people.
- Added new functionalities, optimized the tutorial system structures and C++ interfaces.

Programmer | Mad Science, NU Game Studio   Oct. 2015 – Sept. 2016
- Created a tool that updates customized assets across scenes in runtime using JSON and design patterns.
- Implemented other gameplay and UI features, and fixed bug issues.

PROJECTS

Game Developer | SugAR Poke iOS/Android AR Game   Apr. 2017 – Present
- Created the prototype using Unity, Vuforia SDK and large database, currently working on the game side.

Sole Developer | Prototype4AR Augmented Reality (AR) Framework   Dec. 2016 - Present
- Designed the system architecture, functionalities and built from scratch in C++ and Open Source Computer Vision (OpenCV) libraries.
- Created maintainable and easy-to-use APIs for users to build an AR app even within 30 minutes, including tracking real-world objects, drawing 2D/3D sprites, specifying movement patterns and interaction rules, etc.

Designer, Programmer | LeafVR (Cardboard VR Game with Unity3D)   Nov. 2015
- Designed "sound input" as an unconventional game mechanic, such as slow motion, that drives gameplay.
- Improved physics in interaction and camera to provide a realistic experience of moving and control.