Jiayu Liu

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Available for Co-op/Internship, January – August 2017

EDUCATION

M.S., Game Science and Design (GPA: 3.92/4.00) Sept. 2015 – Expected May 2017
Northeastern University, Boston, MA

B.S. in Cognitive Science (GPA: 83/100) Sept. 2010 – July 2014
Xiamen University, Xiamen, P.R. China

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

Courses: C and C++ Programming, Algorithms, Building Game Engines, Game AI, Computer Graphics

SKILLS

- Solid skills in gameplay programming in C#(Unity3D) and C++: Physics, Audio, UI systems.
- Experienced engine programming in C++ with OpenGL and OpenCV.
- Low-level graphics programming using GLM libraries.
- Language/Software: C, HTML5/CSS3, JavaScript; Unity3D, Unreal 4, Visual Studio, Maya.
- Other: Bootstrap, Jekyll, Qt; Arduino(LoT), Leap Motion, Google Daydream, Oculus Rift.

PROJECTS

Independent Developer | GameAR Augmented Reality Engine Oct. 2016 – Present
- Built an OpenCV-based Augmented Reality engine in C++ from scratch.
- Encapsulated low-level functions into well-designed APIs such as player creation and tracking, etc.
- Created functions for rapidly prototyping AR games by manipulating input parameters.

Independent Developer | VisPi Nov. 2016
- Developed a visual programming tool for Raspberry Pi using Qt GUI libraries.
- Built a script generator tool that translates user settings to actual working codes to Pi.

Programmer Research Assistant | MadScience Oct. 2015 – Sept. 2016
- Implemented gameplay and UI functionalities for a 2D educational serious game in C# in Unity
- Prototyped a poster generating tool that uses player-defined assets across scenes in runtime.
- Designed and performed test cases, generated JSON files to identify and fix bug issues.

Designer, Programmer | LeafVR (Google Cardboard, Unity3D) Nov. 2015
- Developed a module that converts audio signals to multiple levels of controls.
- Worked on camera and physics to provide a realistic gameplay experience of moving and control.

Programmer | Testing and Evaluation System Apr. 2014 – May 2014
- Built an evaluating / testing tool for rating the effectiveness of computer vision algorithms.
- Implemented in C++ for the core algorithm and MFC for software interfaces.