

# XIAOSHAN (HILL) LU

[hilllo.com](http://hilllo.com)

## PROFESSIONAL EXPERIENCE

### VIACOM

**Virtual Reality Engineer** Aug - Dec 2016, New York City, NY  
VR Music Video: *The Melody of Dust* (Shipped on April 10, 2017)  
Implemented animation synchronization, audio visualization and storytelling. Optimized the system with design patterns.

### WARPFORGED GAMES

**Gameplay & UI Engineer** May - Aug 2016, Mission Viejo, CA  
PC Game: *Realms of Conquest* (To be shipped in Summer 2017)  
Improved and implemented new gameplay features, including but not limited to Forced March, Abilities and Terrain Effect System.

### MAKEBEST GAME

**Technical Designer** Sep 2014 - Jul 2015, Guangzhou, China  
Mobile Game: *Blacksmith Story* (Shipped in May 2015)  
Developed the monster system including figures, abilities and game balance.

## PROJECTS

### HaloLands (AR Game)

**Gameplay Engineer, Lead Technical Designer** Jan 2017 - Present, CMU  
Designed and developed a horror game for HoloLens. Took charge of the system architecture, audio system and gameplay features.

### Mesh Editor, Renderer & Fluid Simulation

**Software Engineer** Jan - May 2016, CMU  
Implemented renderers with bounding volume hierarchy and ray tracing, a mesh editor with downsampling, upsampling and resampling, and fluid simulation by SPH and marching cube algorithm.

### Give Me Your Gun (Interactive Theater)

**Lead Technical Designer** Jan - Aug 2016, Games for Change  
Led development of the architecture and gameplay mechanics, which ensures a fluent real-time communication between components.

## EDUCATION

### CARNEGIE MELLON UNIVERSITY

**Master of Entertainment Technology**  
Sep 2015 - May 2017, GPA 3.84, Pittsburgh, PA

### JINAN UNIVERSITY

**Bachelor of Network Engineering**  
Sep 2011 - July 2015, GPA 3.68, Guangzhou, Guangdong, China

## SKILLS

C/C++, C#, Java, ASM, Unity, Unreal, SteamVR, FMOD, Perforce, TFS, MATLAB, Prolog, Oracle, MySQL, Gameplay, Virtual Reality, Computer Graphics, Artificial Intelligent, User Interface, Game Design

## PUBLICATION

*A First-Order Logic Framework of Major Choosing Decision Making with Uncertain Reasoning Function*

on IEEE Transactions on Systems, Man and Cybernetics: Systems

## HONORS

*Realms of Conquest*  
Greenlight  
2017 Steam

*The Melody of Dust*  
World Premiere  
2017 SXSW Film Festival

*Blacksmith Story*  
New Game We Love  
What We're Playing Today (2 weeks)  
Chinese Indie Game Recommended  
Retro-Style Game Recommended  
2015 Apple Store, China (Rating 4.5)  
Best Creativity  
2015 Cocos Game Development Contest

*Zero 2 Hero*  
Honorable Mention  
2016 Global Game Jam, Pittsburgh