

CHANG LIU

Software Engineer (Games, AR/VR)

● www.changliu.world

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EDUCATION

Carnegie Mellon University, Entertainment Technology Center (ETC) Pittsburgh, PA | May 2020
Master of Entertainment Technology

Harbin Institute of Technology (HIT) Harbin, China | Sep. 2014 – June 2018
Bachelor of Engineering, Digital Media Technology

Relevant Courses: Data Structures, Foundations of Algorithms, Java Programming Language, C/C++ Programming Language, Virtual Reality System, Video Game Design and Making, Computer Graphics and Image Processing, Web Programming, User Experience Research

SKILLS

Programming Languages: C/C++, Java, C#, Python, MATLAB, Processing

Game Development: Unity3D, Unreal Engine, HTC Vive (VR), Oculus (VR), Vuforia (AR), Perforce

Web Development: HTML5, CSS3, JavaScript, jQuery, PHP, Bootstrap

WORK EXPERIENCE

Pocket Gems, Inc.

Software Engineer, Intern (Incoming)

San Francisco, CA | June 2019 – Aug. 2019

Carnegie Mellon University, Human-Computer Interaction Institute (HCII)

Research Assistant

Pittsburgh, PA | Feb. 2019 – Present

- Serving as the lead programmer in a public health project at the HCII's Oh!Lab
- Developing a large public display game using Unity3D and C# language
- Improving robustness and reliability of a web game using JavaScript and PHP

ACADEMIC PROJECTS

Houdini, Programmer | Client: Tap Systems Inc.

ETC, Pittsburgh | Jan. 2019 – Present

- Working with the Tap, a wearable keyboard, exploring the potential use cases for this device
- Making prototypes on Android and iOS platforms using Unity3D and Tap's SDK
- Developing and maintaining the project website (<https://www.etc.cmu.edu/projects/houdini/>)

Building Virtual Worlds, Game Programmer

ETC, Pittsburgh | Aug. 2018 – Nov. 2018

Overview: Every two weeks, a rotational five-person team consisting of two game programmers, two artists and one sound designer work together to design and build a virtual world. There are five rounds in total, with new themes, new constraints and new teams each round.

- Created 5 immersive interactive experiences, mostly games, in 10 weeks. One of them was selected into the "ETC Festival"
- Programmed user input system, game mechanics, and interfaces with Unity3D and C# language, using platforms including HTC Vive, Oculus, Meta II, Leap Motion, and Jam-O-Drum
- Developed strong communication and teamwork skills
- Served as a producer for one team to better understand the game development process

MusicAR, Capstone Project

HIT, Harbin | Jan. 2018 – June 2018

- Designed and developed an Android app which provides a music experience with augmented reality (AR) technology
- Used Vuforia AR SDK and Unity3D with C# language
- Won the "Most Popular Graduation Project of The Year"

VOLUNTEER SERVICE & HOBBIES

HIT-COLORS, Co-Founder

HIT, Harbin | May 2015

- Founded the first LGBT+ organization at HIT

Hobbies: Theme Parks, Horror Movies, Harry Potter, The Beatles, Hamilton