

# Guimin Ren

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## Objective

To obtain a position as a Software Engineer.

## Education

**Carnegie Mellon University, Entertainment Technology Center (ETC)**

Master of Entertainment Technology

Related Courses: Java for Application Programmers, Data Structure, Web Application Development.

**Pittsburgh, PA**

May 2021

**Beijing University of Posts and Telecommunications (BUPT)**

Bachelor of Engineering, Digital Media Technology

Related Courses: C++ Programming, Data Structure, Software Engineering.

**Beijing, China**

July 2018

## Skills

**Languages:** Java, C#, C++, JavaScript, Python.

**Applications:** Android, Unity 3D.

## Work Experiences

**Urban Arts Partnership, Code Auditor, New York.**

**07/2020-09/2020**

- Audited over 3K lines of Unity C# scripts for the Ghost School MMO project.
- Organized a “*Simplicity and Readability over efficiency*” standard with the client requirement.
- Reviewed the architecture, readability, simplicity, and efficiency of codes in details.
- Restructured the organization of game scenes according to different features.

**CMU Physics Department, Research assistant and App Developer, Pittsburgh.**

**06/2020-08/2020**

- Built and iterated the educational app “Relatively Simple” for mobile platforms.
- Improved game quality with thorough game play tests.
- Redesigned the game tutorial and implemented new UI with **Unity 3D**.
- Reconstructed the game levels with new level management scripts and game manager scripts.
- Introduced new game features through **rapid prototyping**, including battle system.
- Obtained positive feedbacks from students in Physics Department.

**China Academy of Transportation Science, Beijing, China**

**01/2018-07/2019**

**Software Engineer – XR development and Software Development**

**VR Driving Simulator**

- Built a VR driving simulator with **Unity 3D** and HTC Vive.
- Designed and implemented a data sharing tool between the **Vissum** and **Unity 3D**.
- Integrated the simulator with the Civil Engineer’s workflow to improve traffic design continuously.

**Interactive Construction Progress System for Civil Engineers**

- Designed and implemented a system with Unity 3D to intuitively show various components in a construction project and their building orders.

## Projects

**Room Scale XR Game with Edge Computing - game software engineer, InterDigital(client).**

**Fall 2020**

- Working as a programmer in a six people team to build a 2-player mobile XR experience with **Unity**.
- Aimed to show the application of **edge computing** technology in XR industry.
- Working well in fitting the demand of client **InterDigital** from the bi-weekly conference.

**Pittsburgh Global Game Jam 2020, gameplay programmer, Pittsburgh.**

**Spring 2020**

- Implemented game projects through prototyping, development, and collaboration with other game designers.
- Worked as a gameplay programmer on a team to build a location-based **Android AR** game in two days.
- Implemented the gameplay programming, timeline writing with **Unity 3D**.

**Twitch Improv Show project - Commit 2 the Bits, front-end programmer, designer, ETC.**

**Spring 2020**

- Implemented entertainment project through prototyping, development, collaboration with improvisers.
- Built an interactive chat bot on Twitch comment area with **Twichlib** package.
- Built a **Unity 3D** application with **UNet** to help streamers direct the show.
- Iterated the **Streamlabs** scene designs to improve the live show performance.

**Building Virtual Worlds, programmer, ETC.**

**Fall 2019**

- Implemented game projects through **rapid prototyping**, development and collaboration with sound designers, artists and programmers. Using **Perforce** to do version control.
- Worked as a programmer on five-person team to build an entertainment experience in one to three weeks
- Implemented the gameplay programming, timeline writing, shader writing and post processing.