

JIALU, SUN

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EDUCATION

Carnegie Mellon University, Pittsburgh, United States

Aug 2021 – May 2023

Master of Entertainment Technology, Entertainment Technology Center GPA 4.0

- Relevant Coursework: *Building Virtual World, Advanced Pipeline of Arts, Principle of Software Construction*

Shanghai University, Shanghai, China.

Sept 2017 – July 2021

Bachelor of Engineering in Computer Science and Technology

- Relevant Coursework: *Computer Graphics, Human Computer Interaction Design*
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SKILLS

- Software: Unity 3D, Unreal Engine, Substance Painter, Substance Designer
 - Programming Languages & Toolkit: C#, JavaScript/TypeScript, C++, Blueprint, Java, Git, Perforce, MRTK, ARKit
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WORK EXPERIENCE

Brunswick, Champaign, Illinois, United States

May 2022 – Aug 2022

Software Development Engineer Intern, Consumer Electronics Show(CES) project

- Led the computer graphics team to create an immersive marine experience in **Unreal Engine 5** to showcase the latest boating technology at Brunswick
- Implemented spline following gameplay logic using C++ to increase the player comfortableness by 60%
- Developed UMG and implemented boat physics to simulate intelligent boating systems and Multi-Function Display using Unreal nDisplay
- Collaborated with graphics engineer to generate post-processing outline tools into gameplay mechanics

Ubisoft, Shanghai, China

Jul 2020 – Nov 2020

UX Designer Intern, Just Dance Mobile China

- Conducted market research on the social networking modules of the mobile version of Just Dance
 - Performed UX design using Adobe XD and Axure to develop the new social networking modules including the user profile and game data
 - Assisted with AI coach tracking algorithm optimization and proposed to avoid small displacements in the animation
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PROJECTS

Blue Stream Farms AR

Feb 2022 - May 2022

Gameplay Programmer, Entertainment Technology Center, <https://projects.etc.cmu.edu/blue-farmers/>

- Constructed and launched a **cross-platform** mobile augmented reality (AR) app on both **Google Play** and **App Store** using AR Foundation and C# in Unity
- Implemented 3 mini games in the AR environment includes feeding the fish, going through physical and chemical filters, and fertilizing plants, which educates aquaponics knowledge in an interactive way
- Developed all the related gameplay logic, responsive user interface, in-game animations, and visual effects
- Applied agile development with designers and artists. Iterated according to target audience feedback and clients' needs

CMU Building Virtual Worlds

Sept 2021 - Dec 2021

Gameplay Programmer, Entertainment Technology Center

- Designed and developed 5 interactive Mixed Reality(XR) experiences in 2 weeks sprints with team of 4-5 people.
- Developed based on multiple XR hardware including **HoloLens 2**, **Oculus Quest 2**, HTC Vive and Tobii Eye Tracker
- Built gameplay mechanics for novel interactions and also created immersive storytelling experience

Interactive Data Visualization of Neuron Reconstruction Eigenvalues

Dec 2020 - May 2021

Shanghai University, Independent Thesis Project, Advisor: Dr. Yimin Wang

- Devised and developed an web-based immersive interactive data visualization tool for analyzing complex multidimensional eigenvalues
- Built interactive charts including 2D and 3D scatter charts, scatter metrics, and sunburst charts with **Vue** and **ECharts**