

Dazhou Hou

Pittsburgh, Pennsylvania

☎ 412-759-0988 | ✉ HowardHou1018@gmail.com | 📁 Portfolio | 🌐 DAZHOU HOU

EDUCATION

Carnegie Mellon University

Master of Entertainment Technology

Pittsburgh, PA

Sept. 2023 – June 2025(Expected)

Wenzhou-Kean University

Bachelor of Science in Computer Science, Minor in Mathematics

Wenzhou, China

Sept. 2019 – June 2023

- Dean's List 2020-2023

SKILLS

Programming Languages: C/C++, C#, Java, Python, HLSL, LaTeX

Technologies: Unity, ShaderGraph, Unreal, PyTorch, VS Code, Git, Perforce, TestRail, Jira

DCC: Blender, Photoshop, Premiere Pro

EXPERIENCES

X ACADEMY - TechX Game Development Track

Teaching Assistant

July – Aug. 2023

Shanghai, China

- Prepared study materials and resources to aid students in learning Unity Engine and Blender.
- Addressed students' questions related to game development concepts and software usage

Ubisoft, China Co., Ltd.

Intern, Quality Assurance Engineer

June – Aug. 2022

Chengdu, China

- Collaborated closely with developers to maintain and refactor functional test cases.
- Ensured the tracking, documentation, testing, and regression of bugs using Ranorex, TestRail, and Jira.
- Obtained structured training on the production processes, tools, and procedures used for AAA video games.

Generative Adversarial Networks on Traditional Chinese Paintings 📄

Research Assistant

Jan. – Dec. 2022

Wenzhou, China

- Implemented SAPGAN: Sketch-And-Paint GAN (Xue et, al. 2020) using Python and PyTorch.
- Modified a loss term based on three characteristics of Chinese paintings to amplify visual authenticity.
- Adapted CycleGAN to transferred to the style of Chinese painting using landscape photo dataset.
- Achieved IS score and Frechet Inception Distance higher than 80% GAN implementation on Chinese paintings.

Image Classification in the Cloud-Based Gaming Experience-NCSU GEARS

Research Assistant

June – Aug. 2021

Remote

- Built CNN model using Keras and enhanced transfer learning by utilizing Xception pre-trained model.
- Performed K-fold cross-validation and data augmentation.
- Attained 95% accuracy with real-time images of shots fired in games.
- Developed construction plan, solved technical challenges, and coordinated with team members.

SELECTED PROJECTS

Building Virtual Worlds 📄

Apr. – June 2023

- Rapid prototyping course requiring implementation of 4 immersive user experiences in Unity using C#
- Collaborated with artists and sound designers to iteratively design games for platforms such as Oculus Quest 2, DDR Dance Mat, and Arduino.
- Implemented VFX in Unity using ShaderLab, VFX Graph, and particle system, including vertex manipulation, post-processing, glass & hologram effect, and material interactions.

Virtual Cinema - VR 📄

Apr. – June 2023

- Implemented a virtual reality app to view any website and video on a virtual cinema
- Developed this app with Move-around and switch-seat Functionalities using PICO Unity Integration SDK and Unity XR Interaction Toolkit.
- Used 3D WebView plugin for Unity using Android native browser

Hermes 📄 A 2D vertical platformer game | Ludum Dare 53 GameJam

Apr. 2023

Boomerang Jones 📄 A 2D STG game in Unity and XR version | Unity China GameJam

Oct. 2022

Colorful World & The Way 📄 TechX summer camp's game jam

Aug. 2020