Yen-Chun Huang

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Summary

Gameplay programmer with two years of experience. Passionate about creating innovative experiences, highly skilled in problem-solving, implementing features, and leveraging transdisciplinary skills to collaborate across diverse teams and fields. Currently pursuing master of entertainment at Carnegie Mellon University.

Education

Carnegie Mellon University — Pittsburgh, PA, USA
Master of Entertainment Technology — *Expected May 2026*

National Yang Ming Chiao Tung University — Hsinchu, Taiwan
B.S. in Electrical and Computer Engineering **GPA: 4.03/4.30** — *Sep 2019 – Sep 2023*

Skills

Programming: C, C++, C#, Python, JavaScript

Tools: Unity, Unreal, Perforce, Git, Photoshop

Game Development: Physics, Procedural generation, VR

Languages: Mandarin Chinese (Native), English (Fluent)

Projects

Building Virtual World at CMU Entertainment Technology Center — *Sep 2024 – Present*

- *Barrr VR* - Collaborated with artists and sound designers for a card game involving full body movements. **Developed custom VR throwing mechanics to address hand tracking limitations.**
- *Meow Spa* - Designed a two-player cooperative game that uses a variety of buttons as the interface. Implemented the procedure queue and the leader board **using effective data structures.**
- *Q*Duel* - Recreated the classic Q*bert arcade game into a local two-player area control challenge. **Programmed path finding enemy AI** and enhanced by self-recorded sound effects.

Itch.io Games using C# and Unity Engine — *Jul 2023 – Aug 2023*

- *Reefenge* - Developed for GMTK 2023's jam "roles-reverse." A shooter game with a twist where player controls enemies against the player. **Introduced diverse enemy archetypes and a level system** to offer varied strategic approaches.
- *No Sight, All Might* - Submitted to 1-bit jam "light & dark". **Implemented dash movement and perks**. Players use light to observe, but combat is limited to darkness, promoting anticipation of enemy movements.

3D Virtual Gallery — *Oct 2022 – Jan 2023*

- Designed an interactive web-based environment using **JavaScript Three.js library**, tailored to showcase the creative works of past students of a collaborating professor.

VR Experience Meatball Rider — *Nov 2022 – Jan 2023*

- Developed a VR endless-runner game **using XR Interaction Toolkit**. Integrated physical interactions and haptic feedback for players to control the in-game character using a fitness ball.

Hand Motion Recognition — *Dec 2021 - Jan 2022*

- Developed an gesture recognition tool to control computer interface with only hand movements. **Leveraged Google's MediaPipe solution and Python**.
- **Integrated the technology into a gaming environment** where users can employ various hand shapes and motions to represent in-game actions.

Work Experience

Wistron NeWeb Corporation — Hsinchu, Taiwan
Advanced Technology Development Intern — *Aug 2022 – Nov 2022*

- Conducted comprehensive research on protocol types and packet characteristics for web gaming, **enhanced packet inspection feature to account for transmission delay and elapsed time using C and Lua.**
- Modified the router's web user interface by prioritizing and sorting data, resulting in a more intuitive and user-centric experience with JavaScript.