

Maxwell Glynn Wainwright

mwainwright@wpi.edu | 310-795-9588 | maxtheninja155.github.io

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester MA

Expected Graduation: 2028

- Bachelor of Science in both **Computer Science** and **Interactive Media and Game Design (IMGD)**
-

EXPERIENCE

Software Engineer Intern | Hunu Interactive

2025-2026

- Developed a highly scalable **CSV-to-ScriptableObject** data pipeline, optimizing designer workflows.
- Engineered a robust **minimax AI** opponent, providing designers with **non-destructive parameter tuning**.
- Architected a **cross-platform multiplayer** lobby utilizing **Unity Relay** with **server-side validation**.

Game Developer: G-Force Studios

2024

- **Collaborated** directly with **industry veterans** to develop a **mobile application prototype**, driving rapid iteration on core software systems
 - Engineered foundational mechanics in **Unity (C#)** employing strict **object-oriented principles**, utilizing rapid prototyping methodologies to successfully deliver a **minimum viable product**.
-

SKILLS

- **Languages:** C++, C#, Swift, Python, Java, SQL, Mandarin
 - **Frameworks & Libraries:** SwiftUI, CoreML, CoreBluetooth, PyTorch, SFML
 - **Tools & Concepts:** Git, SQLite, Unity, Unreal Engine, OOP, Machine Learning, Client-Server Architecture
-

PROJECTS

Hanover Insurance Web Application Prototype | PERN Stack, TypeScript, Agile

2026

- I worked on a **10-person team** to apply **Agile** development methodologies in the creation of a web application prototype running the cloud for **Hanover Insurance**.
- As an **assistant lead software engineer**, I was the **technical leader** of the **frontend** subgroup.
- I was responsible for writing the Main **Content Management** and **User Management components** of the application.
- The web application was developed using the **PERN** (PostgreSQL, Express, React, Node.js) stack with Typescript, Prisma ORM, and tailwind.

Elementals | C++, SFML 3.0

2025

- Built a **custom ASCII 2D engine** from scratch, implementing **core architectural managers** for display, hardware input, logging, and state management.
- Developed **complex tree data structures** to efficiently parse string inputs and meticulously manage character states, custom hitboxes, and specialized input sequences.
- Engineered **deterministic state management systems** featuring **custom physics handling** and **precise collision resolution** for seamless **local multiplayer** sessions.

DoomClimb | Swift, CoreML, CoreBluetooth, PyTorch, SQLite

2026

- Developed and deployed a **native iOS App Store** application featuring a **custom-trained GPT-style transformer (2M parameters)** to **autoregressively generate** novel bouldering routes.
- Engineered an end-to-end **PyTorch** machine learning pipeline trained on **60,000 SQLite** records, exported to **CoreML** for robust, **cloud-independent** on-device inference.
- Designed a **graph-reachability algorithm** for physical validation and reverse-engineered a **BLE protocol** with **custom packet chunking** to interact with drive **476** motorized hardware LEDs.