

# Matthew Diamond

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## EDUCATION

### University of Michigan

*Bachelor of Science in Computer Science*

GPA: 3.65 / 4.00

Coursework: Data Structures & Algorithms, Calculus II, Discrete Mathematics, Introduction to Statistics and Data Analytics, Computational Linear Algebra.

**Ann Arbor, MI**

*Expected Graduation: May 2027*

## WORK EXPERIENCE

### WolverineSoft Studio

*Gameplay Programmer, R&D member*

**Ann Arbor, MI**

*Jan 2024 - Present*

- Engineered building gameplay systems, including new buildings and building decay for Defenders of the Dune.
- Led R&D team to create *Project Parkour*, a first-person platformer later expanded upon by a 15-person team.
- Built integral movement abilities and obstacles that define Project Parkour's core gameplay loop.

### Cloud Theory

*Software Engineering Intern*

**New York, NY**

*May 2025 - Aug 2025*

- Built backend services in C# such as user management system and cache invalidation, reducing admin overhead.
- Resolved critical full stack bugs and implemented Blazor UI components for a seamless user and admin experience.

### Advance Local

*Software Engineering Intern*

**New York, NY**

*May 2024 - Aug 2024*

- Developed a Python-based application enabling non-technical users to execute SQL queries and retrieve critical data.
- Leveraged OpenAI's API and Python to analyze news content for compatibility with an AI voice reading program.

## PROJECTS

### Gravity Gunners (Unreal Engine 5.4, C++, Unreal Multiplayer Networking)

*Description:* Tactical multiplayer third person arena shooter with Gravity Rush like movement. Solo project.

- Crafted core third person shooter systems like weapons, power-ups, and unique gravity movement system
- Optimized code with object pooling and minimizing , ensuring 60 frames per second for most users. // Look at this later
- Built lag compensation features such as server-side rewind and client-side prediction for a fair multiplayer game.

### Project Parkour (Unity, C#)

*Description:* Fast paced first person platformer focused on overcoming obstacles by using abilities and cunning strategies.

- Engineered core gameplay mechanics such as 4 distinct movement abilities, ability manager, obstacles, and more.
- Planned core gameplay and programming pillars, writing documentation to help guide and onboard other developers.
- Authored dev blog detailing progress every two weeks while going over challenges and how I overcame them.

### Multiverse Mercenaries (Unity, C#)

*Description:* Procedurally generated 2D action platforming rogue-like with 2 unique characters, 4 levels, and over 15 items, and 4 enemies.

- Programmed core gameplay mechanics and implemented procedural level generation using Dijkstra's algorithm.
- Designed and implemented game features, ensuring a balance between player freedom and gameplay intensity.
- Directed marketing efforts, using guerrilla and influencer marketing, resulting in over 400 Steam downloads and 83% positive recommend rate.

### Defenders of the Dune (Unity, C#)

*Description:* An action packed Real Time Strategy game where you survive on an island full of dangerous bugs by managing sand troops and create buildings.

- Engineered building gameplay mechanics: outpost building, building decay, troop healing, and visuals to help players.
- Rigorously tested and fixed bugs to ensure a smooth and immersive gameplay experience for players in Steam release.

## SKILLS

- Programming languages: C++, C#, Blazor, Python, SQL, R
- Game Engines: Unity, Unreal Engine
- Engine & Game Dev Skills: Unreal multiplayer networking & replication, Blueprints, Animation Blueprints
- Tools & Technologies: Git, GitLab, Azure, .NET, JIRA, Confluence