

Brice Woodburn

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OBJECTIVE

Seeking a Summer 2026 internship in any location, leveraging my background in software engineering and game development..

EDUCATION AND AWARDS

Rochester Institute of Technology | Anticipated May 2027

Rochester, NY

Golisano College of Computing and Information Sciences

Bachelor of Science, Game Design and Development

- GPA: 3.92
- Awarded Dean's List all semesters
- Fall 2024 recipient of Presidential Scholarship (merit based)
- Relevant Coursework: Data Structures and Algorithms I&II, Real Time Simulation I&II, Web Technologies and Design, Interactive Media Development, Linear Algebra, Discrete Mathematics, Physics I, 2D&3D Animation and Asset Production.

SKILLS

Programming Languages: C++, C#, Python, SQL, HTML5, CSS, JavaScript

Project Management: Leadership, Agile/Scrum methodologies, presentation/public speaking, project coordination

Technical Skills: Object-Oriented Programming, software testing and debugging, software architecture design, Software Development Life Cycle, unit tests, UI/UX development, web design

Software & Tools: Git/GitHub, VS&VS Code, Lucidchart, Unity, Unreal Engine, Rally, Windows OS, Microsoft Office

Soft Skills: Verbal and written communication, problem solving, time management, collaboration, attention to detail, and adaptability

PROFESSIONAL EXPERIENCE

Wabtec Corporation

Pittsburgh, PA

Quality Innovations Project Lead (IT Project Manager Intern)

May 2025 - July 2025

- Managed **5 sprint cycles** for a pillar application featuring **100+ modules**, applying **Agile methodology**.
- Led daily Agile **stand-up meetings** for a team of **20 developers**, driving task updates, outlining deliverables, resolving blockers, and directing workflow to maintain project momentum and team productivity.
- Translated **functional requirement specification documents** into IT technical specifications through user stories in **Rally**.
- Coordinated meetings with **business process owners** to review and approve deliverables, and document feedback.
- Enhanced **navigation** and **accessibility** of business capability mappings through a team-developed PowerApps application.

PROJECTS

CastIQ (Python | SQL | FastAPI | Chart.js)

September 2025 - December 2025

- Developed a **full-stack** fishing tracker web application to **log, analyze, and visualize** fishing data.
- Implemented a **cloud-based PostgreSQL database schema** in Supabase, ensuring scalability, and efficient querying.
- Developed **Python scripts** to automate database tasks, including adding, reading, updating, and deleting data, emphasizing **modular programming** and **error handling**.
- Applied end-to-end software engineering practices such as **data modeling, algorithm design, testing, and version control**.

Rat Runner (Unity | C#)

August 2025 - Present

- Developing a **3D Unity game** with a team, using **Agile** to **iteratively improve** systems and features from playtest feedback.
- Integrated an auto-save system using **file I/O** and **binary serialization** to securely store and retrieve game data.

Autonomous Agents Simulation (Unity | C#)

April 2025 - May 2025

- Developed an **autonomous agent simulation** using **steering behaviors** such as seek, flee, arrive, and path following to model **realistic movement and decision making**.
- Utilized math and motion principles to simulate **velocity, acceleration, and force** for smooth and natural agent movement.
- Built a flexible **control system** to test and observe how agents navigate, react, and adapt within a simulated environment.

Graphical Gravity Game (C++ | Box2D | SFML)

February 2025 - April 2025

- Implemented a **2D physics simulation** using the Box2D and SFML libraries for physics simulation and graphics rendering.
- Developed utility functions to convert between Box2D and SFML coordinate systems, synchronizing calculations & visuals.
- Designed and implemented a **finite state machine** to manage start, active, and end screens for seamless gameplay transitions.