

Iain Roach

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EDUCATION

Rochester Institute of Technology | Bachelor of Science in Game Design and Development

Graduated 5/24

- Minor: Japanese
- GPA: 3.9
- Summa Cum Laude

CORE QUALIFICATIONS

Programming Languages: C# | C++ | HTML:5 | JavaScript | CSS | HLSL

Tools: Unity | Visual Studio | Visual Studio Code | Git | Maya | Blender | Photoshop | GraphQL | DirectX11 | XML | JSON

- 1 year of developing game engines
- 4 years of development with Unity
- 4 years of experience with C#
- 4 years of object-oriented programming
- 4 years of experience with Git
- 4 years of experience integrating art and functionality in engine
- 3 years of experience with project management tools including Trello and ClickUp
- 2 years of building educational VR simulations
- 3 years of experience with C++

Related Courses:

- Game Engine Design and Development (Unity, C#, and C++)
- Game Design and Development I & II (Unity and C#)
- Independent Study: Game Engines (C++)
- Data Structure and Algorithm for Games and Simulations I and II (C++)
- AI for Game Environments (Unity and C#)
- Game Graphics Programming I & II (C++, DirectX11, and DirectX12)

RELEVANT EXPERIENCE

UNITY DEVELOPER

5/22 - 5/24

Designori, LLC | Anchorage, AK (remote)

Skills Developed: Collaboration, communication, VR programming, remote teamwork, project management, problem-solving, technical skills in Unity and C#, time management, and adaptability.

- Collaborated remotely within a compact team to implement virtual reality training simulations for Alaska's Coastal Village Relief Fund (CVRF).
- Implemented the tutorial sequence for the SAFER HCM Module.
- Regularly communicated project milestones and objectives to the team lead through structured weekly development meetings.
- Created a preflight inspection sequence simulation to educate users on safety protocols required before flight.
- Maintained a working knowledge of the various systems so that I could troubleshoot and resolve issues quickly.
- Analyzed performance and implemented optimizations in code to make sure that performance fit within the hardware constraints.
- Adapted to software changes by implementing a new solution for the VR program, ensuring continuity and enhancing performance.
- Balanced academic responsibilities and project work, demonstrating strong time management and prioritization skills while maintaining high performance in both areas.

Designori Projects:

CVRF Northern Hawk Simulation

5/22 - 12/22

- Developed VR training scenes teaching users how to pack fish filets on The Northern Hawk fishing vessel, ensuring uniform box contents.
- Worked under the direction of the project lead to create the functionality for several tutorial scenes.

RELEVANT EXPERIENCE (continued)

SAFER VR

5/23 - 10/23

- Created tutorial sequence to train users on operating the SAFER hand control module.

Kawarek CDL

9/23 - 12/23

- Implemented tutorial sequence to train users on inspecting a semi truck for functionality.
- Worked concurrently with the SAFER VR project, maintaining a high standard of quality and timely delivery for both, displaying the ability to prioritize and manage multiple milestones and projects efficiently.

Nactec AnP

1/24 - 5/24

- Developed a comprehensive pre-flight inspection training sequence for Cessna 150 pilots, ensuring thorough understanding and adherence to pre-takeoff procedures.

GAME DEVELOPER

1/24 - Current

Ninjas On Trampolines, Group Project (Unity, C#) *in progress*

- Leading gameplay development for a casual 2D platform fighter.
- Designing and implementing various game modes and items to enhance gameplay dynamics.
- Awarded “Best Experimental Game” at RIT’s 2024 Experimental Development and Games Expo (EDGE).
- Awarded accessibility award for creation of color blind mode.

GAME DEVELOPER

1/24 - 5/24

Ferrus Game Engine, Independent Study (C++)

- Developed a 2D game engine using Direct2D and EnTT technologies.

ROBOTICS TEAM MEMBER

1/07 - 5/19

FIRST Robotics

Skills Developed: Collaboration, leadership, problem-solving, project management, and technical skills in design, programming, and robotics.

- Helped lead group discussions to design and prototype various robots, ensuring they comply with competition rules and constraints (firstinspires.org).
- Collaborated with team members to devise innovative and creative solutions, overcoming technical challenges and improving robot performance.
- Participated in community outreach events to help get others interested and excited about STEM.
- Practiced and promoted “Gracious Professionalism”, ensuring respectful interactions both within the team and with competitors.
- Volunteered as a judge at several FIRST events, assessing teams based on design, innovation, and teamwork. Provided constructive feedback and encouraged continuous improvement.

AWARDS and CERTIFICATIONS

- Summa Cum Laude, Game Development and Design, Rochester Institute of Technology, 2024
- Dean’s List, Rochester Institute of Technology, *Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024*
- “Best Experimental Game” at RIT’s 2024 Experimental Development and Games Expo (EDGE)
- FIRST Robotics Competition (FRC), Team won Engineering Inspiration award, 2018
- FIRST Tech Challenge (FTC), Team won Motivate Award, 2017
- FIRST LEGO (FLL), Team won Inspiration award, 2014

LANGUAGES

- English, fluent
- Japanese, intermediate

Willing To Relocate