

# ANDREW BROOK

Portfolio: [abrook.net](http://abrook.net)

270 Exchange Blvd, Apt 316 - Rochester, NY 14608 | P: (339) 933-6245 | E: [abrook385@gmail.com](mailto:abrook385@gmail.com) | L: [linkedin.com/in/andrew-brook](https://www.linkedin.com/in/andrew-brook)

## SUMMARY

Creative and goal-driven Game Developer with experience in the Unity and Unreal game engines seeking a position to leverage skills in gameplay programming, AI, and problem solving to contribute to the development of cutting-edge games and experiences

## SKILLS & EXPERTISE

**Programming Languages:** C# (Expert) • C++ (Proficient) • JavaScript (Proficient) • HTML (Proficient) • Java (Proficient)

**Software:** Unity (Certified Professional – October 2022) • Unreal • MonoGame • Git • Jira • Confluence • Photoshop

## EDUCATION

**ROCHESTER INSTITUTE OF TECHNOLOGY (RIT)** | Rochester, NY

Bachelor of Science, *Game Design and Development*

Graduated May 2021

GPA: 3.88/4.0

Honors: Suma Cum Laude, RIT Presidential Scholarship, Dean's List: Fall 2017 – May 2021

## WORK EXPERIENCE

**RTI INTERNATIONAL** | Raleigh, NC

XR Gameplay Programmer

April 2021 – September 2023

- Designed and rapidly prototyped multiple AR/VR training simulations for mobile and Quest 2 utilizing the Unity game engine
- Collaborated closely with clients and cross-functional teams to simulate real-world devices, sampling tactics, and scenarios
- Utilized strong problem-solving skills to troubleshoot technical issues and ensure high-quality, performant VR experiences
- Programmed all major gameplay systems, from simulated surface-based contamination to a functional multi-app user tablet

**DARK RING STUDIO** | Rochester, NY

Founding Manager/Lead Developer

January 2020 – Present

- Led team of 5 developers to create 3D procedural action game built around enemy possession in the Unity game engine
- Created complex and engaging enemy AI behaviors utilizing a Hierarchical Task Network model
- Programmed most major gameplay systems, from movement and combat to JSON-based saving/loading and item databases
- Managed programming and art workflow built around an Agile-inspired methodology with bi-weekly sprints and milestones

**THE EDGE VR** | Croton-On-Hudson, NY

VR Design/Development Intern

June 2019 – August 2019

- Designed and developed gameplay features, environments, and other functionality for full body location-based VR experience
- Developed modular state-based enemy AI architecture with a focus on behavioral variety and physics-based reactivity
- Heavily reduced network traffic by utilizing interpolation techniques to smoothly sync objects across network
- Increased performance of VR-intended scenes to 90 FPS with various optimization techniques and profiling

**MAGIC SPELL STUDIOS.** | Rochester, NY

Lead Developer/Project Manager for Spirit Labyrinth

October 2018 – May 2019

- Led team of 5 developers to make RIT-funded procedurally generated VR fantasy dungeon crawler in the Unity game engine
- Collaborated with artists and designers to develop dynamic state-based enemy AI systems linked to animation state machines
- Programmed core gameplay loop managers, spatial audio systems, UI/UX elements, and VR object interactivity

## FEATURED PROJECTS

**Multiverse Inc.** | Lead Developer/Designer

August 2019 – January 2020

- Led team of 4 developers to create 3D comedic exploration game based on parallel universes in the Unity game engine
- Programmed dynamic scene-swapping mechanics, designed gameplay and levels, and wrote overarching narrative

**Sword of Faith** | AI Programmer/Tech Artist

November 2019 – December 2019

- Designed and developed state-based enemy AI for this 2-player co-op arcade game in the Unity game engine
- Implemented character animations and melee combat systems, as well as all post-processing and camera-based effects