Samuel Liu

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WORK EXPERIENCE

Digital Extremes   **Sep 2023 - Dec 2023**
AI Game Programmer Intern
- Developed and shipped new AI behaviors, gameplay events, and world assets using C++ and Lua as part of 'Whispers in the Walls' major content update for 'Warframe'
- Improved and fixed existing systems of a Live Service video game in response to player feedback
- Modified animation tree and rigging of animation skeletons to synchronize animations with scripted events

Behaviour Interactive   **Jan 2023 - Apr 2023**
Game Programmer Intern
- Implemented interactive gameplay elements and visuals for Silent Hill project
- Designed a tool within Unreal Engine to efficiently handle a large number of assets, dramatically improving productivity of artist team

Eden Industries   **Jan 2022 - Apr 2022**
Game Programmer Intern
- Spearheaded development of four unique boss fights within internal game engine using C++ and Tiled
- Enhanced AI logic for overworld map navigation and automatic combat during encounters

Alcumus   **May 2021 - Aug 2021**
Software Developer Intern
- Implemented REST APIs using Spring Boot for the Field-ID application, making use of appropriate design patterns and coding conventions

OpenText   **Sep 2020 - Dec 2020**
QA Specialist Intern
- Ran statistical analyses on data generated by Jenkins and JMeter to find performance bottlenecks

Geotab   **Jan 2020 - Apr 2020**
Software Developer Intern
- Led team responsible for development of internal web page using ReactJS to assist in data entry
- Developed, documented, and programmatically tested REST API endpoints for assessment page

EDUCATION

University of Waterloo   **Apr 2024**
Bachelor of Applied Science, Computer Engineering, Honours

PROJECTS

Unity 2D Game   **Dec 2020 - Present**
Fallen Templar | notsamyul.itch.io/fallen-templar
- Single-handedly ideated and developed a video game using C# and Unity, implementing systems for audio, graphics, and gameplay
- Wrote algorithms for procedural generation and A* pathfinding to improve variation of gameplay

SKILLS & INTERESTS

- **Languages:** C, C++, C#, Java, Python, Lua, Kotlin, Rust, Assembly (RISC-V)
- **Technologies:** Unity, Unreal Engine, Android Studio, React, Git, Perforce, SQL, Node, Docker
- **Interests**: swimming, rock climbing, music, video games (Celeste, Bioshock Infinite, Teamfight Tactics)