Steven Lee

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SKILLS

- **Programming Languages**: C#, Java, Python, C, C++, SQL, JavaScript, Ocaml, HTML/CSS, Lua
- **Frameworks/Libraries**: Three.js, OpenGL, React, Dash, Jfreechart, Plotly, NLTK
- **Technologies:** PostgreSQL, NoSQL, FireBase, Android, Git, Blender, Autodesk Maya
- **Game Technologies**: Unity Engine, Unreal Engine, Godot Engine
- **Spoken Languages:** English (native), Korean (native), French (fluent)

WORK EXPERIENCE

ROAAr - McGill University *December 2020 - Present*

Game Development Specialist – Research Assistant

- Worked on a game project, backed by the SSHRC, led by Professor Nathalie Cooke.
- Created a world hub using **Pannellum** and **Three.js**, improving framerate performance by 20% and enabling custom functionalities compared to the previous application used by the team.
- Currently Developing and Designing gameplay features in C# using Unity Engine.

PROJECTS

Antimony *March 2020 - Present*

A 2D adventure game made with Unity being planned for release on Steam by a team of 7 students.

- Currently developing a dynamic inventory system that resizes visually based on the number of items held.
- Developed interactivity of items with the game's environment using scriptable items, allowing designers to easily create puzzles by dragging game objects in the engine editor.
- Wrote gameplay features to take keywords from the dialogue tree and turn it into objects using C#.

Infinite Burnside *May 2020*

First person pixelated horror game, with over 500 downloads on itch.io.

- Profiled and optimized framerate and stability by 21% using the **Unity Profiler** and optimization techniques**.**
- Implemented enemy behavior using State Machine Design Patterns to attack the player when in range.
- Developed a Procedural Stairs Generation system in C# to generate unpredictable jump scares.

No More Voxels! *December 2019*

Shoot 'em up game created using procedural generation techniques for Game Dev McGill's monthly jam.

- Improved framerate by 28% using **GPU instancing** on thousands of low poly objects.
- Implemented Perlin Noise to create random shapes of terrain.
- Developed random entity spawning systems using Factory Design Patterns.

EDUCATION

McGill University *2017 – 2021 Expected*

- Bachelors, Major in Computer Science, Minor in East Asian Studies
- Courses: Computer Graphics, Computer Animations, Database Systems, Algorithms & Data Structures

LEADERSHIP AND EXTRACURRICULAR

Game Development Society *March 2019 – Present*

Vice President – Head McGame Jam Organizer

- Led a team of 13 volunteers to organize McGame Jam, a 48-hour hackathon, attracting over 155 developers.

McGill Bio Design *December 2019 – August 2020*

Software Team – Glucose Monitoring System

- Developed an Android Application alongside a team of software developers using **Firebase** as the application's real time database to allow glucose monitoring in 30 children.