

Steven Lee

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EDUCATION

McGill University

2017 - 2021

- Bachelors, Major in Computer Science, Minor in East Asian Studies

SKILLS

- **Programming Languages:** C#, Java, C++, C, SQL, Python, Ocaml, HTML/CSS, JavaScript, Lua
- **Framework/Libraries:** WebGL, Bootstrap, Three.js, OpenGL, Dash, Jfreechart, Plotly, NLTK, Vulkan
- **Technologies:** PostgreSQL, AWS DynamoDB, Firebase, Android, Git, Blender, Maya
- **Game Technologies:** Unity Engine, Twine, Unreal Engine, Godot Engine

PROJECTS

Antimony

March 2020 - Present

A narrative focused 2D game made with Unity, worked on with four artists and one other programmer, being planned for release on Steam.

- Currently developing a **dynamic inventory system** that resizes visually based on the number of items held.
- Wrote gameplay features to take keywords from the dialogue tree and turn it into objects using **C#**.
- Developed interactivity of scriptable items with the game's environment using Unity's mouse system.

Infinite Burnside

May 2020

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

- Implemented a pixelation shader in **HLSL** and used **Occlusion Culling** to improve the frame rate by **40%**.
- Implemented efficient enemy behavior using **Finite State Machine Design Patterns**.
- Developed a **Procedural** Stairs Generation system with randomized game events.

No More Voxels!

December 2019

Developed a Rail shooter game using procedural generations.

- Profiled and optimized game performance by 20% using **Unity Profiler** and **GPU instancing**.
- Implemented procedural terrain generation with **Perlin Noise**.
- Developed a **mesh decomposer system** using **C#** to turn objects into primitive shapes when hit.

JetBlue Sentiment Analysis:

September 2019

Data visualization web app written for Yale Hacks.

- Created a website using **HTML/CSS** and **Python**.
- Provided accurate visualization of data by building graphs with **Dash** in a web application.

LEADERSHIP AND ACTIVITIES

McGill Game Development Society

March 2019 – Present

VP-Game Jam

- Currently leading a team of 14 volunteers to organize McGame Jam, a 48-hour game development hackathon, attracting over 150 hackers across Quebec.
- Gave a public talk to teach beginner artists in using **3D modeling software** and **low polygonal design techniques**.

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.
- Allowed wireless data transmission of glucose levels from an **Arduino** to the database with **Python**.
- Developed the application's backend in **Firebase** to process transmission of data from glucose sensors.