Steven Lee

(514)-265-0116 | joo.hyung.lee@mail.mcgill.ca | <u>LinkedIn</u> | <u>Github</u> | <u>Itch.io</u> | Portfolio

EDUCATION

McGill University   *2017 - 2021*
- Bachelor of Arts, 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
- **Technologies:** Adobe Photoshop, Final Cut Pro PostgreSQL, AWS DynamoDB, Firebase, Android, Git, Blender
- **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.
- Created promotional materials using **Adobe Photoshop** and **Final Cut Pro.**
- 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.