

# Keith Liu

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## Skills

Game Design · Level Design · C++ · C# · Unreal Engine · Unity · Godot · Blender · 3D modeling · Animations · Character Design

## Projects

### **Dodgeball [Godot]** - Game Designer | Artist

Oct 2023

*A chaotic dodgeball multiplayer party game, boasting adorable dogs, and capable of hosting 24+ player lobbies.*

- ❖ Developed the MDA using design documents to maintain a cohesive vision amongst team members.
- ❖ Modeled and rigged 3D characters with Blender.
- ❖ Utilized shaders and the Godot particle system to create in-game VFX.
- ❖ Conducted a 24-player stress test at a LAN party.

### **Deathwish [Unreal Engine 5]** - Game Designer | Level Designer

Dec 2022

*A challenging fast-paced tactical shooter that rewards precise gunplay and clean movement.*

- ❖ Created an immersive and high-octane gameplay loop for a fast-paced tactical shooter experience.
- ❖ Designed and built multiple levels in Unreal Engine 5, seamlessly integrating them with the gameplay.
- ❖ Collaborated closely with programmers and sound engineers to achieve a cohesive aesthetic.

### **SAD Engine** - Programmer

Dec 2022

*ECS-based custom game engine created using OpenGL, C++, imgui, and entt that runs a 3D FPS game.*

- ❖ Developed a configuration and game state file management system.
- ❖ Implemented an audio management system for the engine using SDL to handle in-game audio.
- ❖ Implemented raycasting for the engine to handle in-game shooting mechanics.
- ❖ Utilized GitHub and Trello for streamlined task management and effective communication within an 11-member team.

### **Die for a friend [Unity]** - Game Designer | Artist

Jul 2022

*An atmospheric narrative puzzle game that immerses players in a short and relaxing experience.*

- ❖ Crafted a captivating and relaxing puzzle game, designed to deliver an enjoyable and laid-back experience.
- ❖ Orchestrated the art, sound, and narrative elements to create an immersive atmosphere that engrosses players.

### **Mono [Unity]** - Game Designer | Gameplay Programmer

Feb 2022

*A cute puzzle platformer that challenges players' memorization and problem-solving skills.*

- ❖ Conceptualized the game systems.
- ❖ Programmed the game's controls, physics, and core systems.

### **Apophis Protocol [Unity]** - Game Designer | Level Designer

Dec 2021

*A high-octane movement shooter delivering fast-paced action with a vast arsenal of weapons.*

- ❖ Designed and implemented dynamic level layouts leveraging a wide range of intricate movement mechanics.
- ❖ Designed engaging combat mechanics for a captivating movement shooter experience.
- ❖ Streamlined workflow and facilitated clear communication by effectively conveying design concepts to a small team of six using design documents for levels and gameplay.
- ❖ Led and collaborated with a small team of artists, leveraging interpersonal and communication skills to maintain a cohesive project aesthetic.

### **Nivis [Unity]** - Game Designer | Programmer

Dec 2021

*A sci-fi tower defense game featuring an array of towers and enemies offering limitless gameplay options.*

- ❖ Created a scalable framework, simplifying the implementation of features and updates for a Tower Defense game.
- ❖ Designed and scripted a large variety of tower and enemy types to deliver a compelling and engaging experience.
- ❖ Conducted playtests after each iteration to ensure game balance and proper game flow for our target audience.
- ❖ Collaborated on overhauling the user interface, prioritizing discernibility for meaningful play.

## Education

**British Columbia Institute of Technology** - Bachelor of Technology, Games Development

Apr 2023

**British Columbia Institute of Technology** - Diploma, Computer Systems Technology

Apr 2019