

# Rick Huang

Game Programmer

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## Career Objective

The short term objective is to make a 2D puzzle game for PC with an unique mechanic related to game programming knowledge, aimed to provide enlightenment for young audiences. Also expecting to participate in development and implementation of creative mechanics and visual effects for puzzle, role-playing, Hack and Slash and RTS games.

## Programming Experience

3-year programming experience in C++. Studied game programming topics including 3D graphics rendering, animation, GPU shader effects, artificial intelligence, physics, linear algebra, calculus, networking, database.

Also have development experience using Unity3D game engine for a team production project and other personal games.

## Projects

**HUGE** — Huang's Ultimate Game Engine Since Apr 2019

A 3D game engine made in C++ with third party libraries such as Direct3D 11, ImGui, and RapidJSON. Implemented library modules including:

- Math library with various linear algebra and geometric primitives types
- Graphics engine with skeletal animation, post processing effect, and shadow
- AI library with modules for FSM, steering, pathfinding, perception
- Component-based game object management system

**3D Hack n Slash Combat System** — Senior Project Apr 2020 - July 2020

A 3D hack n slash project made with Unity dedicated to implementing fluent 3D combat mechanics and gaining a deeper understanding of Unity's animation system.

**Luna** — Production Team Project July 2019 - July 2020

A 2D-platformer role-playing game for PC which was made by Unity with a group of 3 designers and 4 programmers. Focused on design and implementation of the UI system, as well as audio event hook up.

## Education

**LaSalle College Vancouver** 2017- 2020

Bachelor of Science in Game Programming

**Fuzhou University** 2013 - 2017

Bachelor of Fine Arts

## Skills

C++/C#

Visual Studio

Unity3D

TFS/Git/SourceTree

## Hobby

Drawing:  
sketch, water color

Making pixel art and animation.