

## Skills

- **Language:** C, C++, C#, GLSL, CSS, HTML
- **Engines:** Unity Engine, Unreal Engine
- **Tools:** Git, OpenGL, Direct X, GLFW, Visual Studio, Visual Code, Resharper, Rider, Android Studio, gcc/g++, RenderDoc, Nintendo SDK with Unity Engine, Native Nintendo Code(NX)
- **Programming Paradigm:** OOP, TTD, Functional Programming, Design Pattern

## Professional Experiences

### Outgame Client Programmer

5minlab - Team of SMASH LEGENDS - Korea

Jan 2020 - Apr 2022

- Implemented network Outgame systems like HTTP, Websocket, MQTT and many other network codes and created Social, Party, Chat, Friendly match and many other network features.
- Partnered with UI/UX designer and made UI modules for helping UI/UX designers to use for making the best design for providing to users.
- Succeeded in attaching third-party SDKs for self-publishing and devised Login, Maintenance, IAP, Billing with Purchase, Push Alarm, News and many other platform-based systems.
- Regulated live service for a year Outgame client programmer alone and controlled server status, database, localization, build with deploying, coordinated market space like Playstore, AppStore, Steam and many other tasks.

### Teaching Assistant

DigiPen Institute of Technology

Sept 2023 - Dec 2023

- Led 20+ students in Advanced Computer Graphics, covering modern GPU architecture and various rendering techniques including texturing, illumination, transparency, shading, mapping and shadows with OpenGL.
- Offered individual guidance to students struggling with understanding the course material and reviewed the technical aspects of projects.

## Academic Projects

### Game Programmer & Tech Director

Paparazzi - 3D Platformer Puzzle

Sept 2023 - Dec 2023

Team of 5

- Applied 3D Graphics object collision ideas for making object-cutting features with a plane, resulting in the ability to cut objects by camera view frustum with Unity Engine.
- Produced all of the in-game UI system using Unity GUI, which included the development of a picture album system to generate new geometry which is sliced by view frustum with saved album objects.
- Navigated the git flow of the team overseeing all scripts and providing assistance as well as fixing bugs.

### AI Game Programmer

Infe Station - First Person Shooting Horror

Jan 2023 - May 2023

Team of 6

- Developed different types of AI enemies using Behavior trees, Navigation system, AI perception and AI Debugging with Unreal Engine.
- Created basic AI enemy which is patrol type of enemy and utilized Computer Graphics view frustum experience for creating SCP-173/Weeping Angles type enemy.

### Graphics Programmer & Engine Architecture

CamPic - 2D Platformer Puzzle

Sept 2018 - June 2019

Team of 4

- Headed design engine structure and implemented engine core systems and fulfilled Scene Manager, Object Manager and many other engine cores with GLFW, C++14.
- Programmed 2D Graphics system by using OpenGL with GLSL and applied camera, texture, animation, particle and other 2D graphics features to effectively show 2D Graphics.
- Formed game's core system with basic player movement, camera movement and other based game systems.

## Education

### BS in Computer Science in Real-Time Interactive Simulation

DigiPen Institute of Technology

Expected Graduation: Apr 2024

GPA: 3.92 / 4.00