

# Jiwon Jung

Software Engineer

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## Skills

C	C#	DirectX 11	Unity Engine	gcc/g++	UI/UX
C++	Artificial Intelligent (AI)	OpenGL	Unreal Engine 4	Source Control	Game Programming

## Academic Projects

### AI programmer - Kaiju Kabouly (2 Programmers, 2 Designers)

January 2022 - April 2022

*3D VR first-person action simulation game / Unity Engine*

- Wrote the code for the car AI system which enables traffic system in the game
- Developed human AI to reduce errors and show better movement
- Debugged errors and warnings from the overall code and source control

### 3D OpenGL Project (Solo Academic Project)

September 2021 - December 2021

*3D OpenGL graphics framework / Custom Engine*

- Completed core math library with C++ language which enables basic 3D transformations such as rotation, perspective and etc.
- Visualized lighting by using BRDF lighting and enables texture mapping by modifying shaders
- Implemented navigating camera controller and reflect system to make shiny specular objects reflect the skydome

### AI programmer - Flow Field Project (2 Programmers)

October 2020 - December 2020

*Flow field game AI project / Custom Engine*

- Formulated core features including AI by using the Dijkstra algorithm in C++ language
- Handled project management and designed program concept and core program mechanics

### Producer, Gameplay programmer - Cheese Roll (4 Programmers)

October 2019 - July 2020

*2D top-down cooperating puzzle game / Custom Engine*

- Built core game mechanics, game engine and game levels with C++ language include joint system for rope
- Managed the team efficiently and successfully for well-organized teamwork
- Programmed main menu UI, tutorials, and credit scenes

### Technical Director, Gameplay programmer - Finding Coffin (3 Programmers)

March 2016 - July 2016

*2D platformer running game / Custom Engine*

- Constructed core game concept and core mechanism
- Made gameplay and all physics codes with C language
- Designed overall UI of the game including score, main menu, and credit scene

## Work Experience

### Teaching Assistant - DigiPen Institute of Technology

September 2021 - April 2022

- Helped students with C# programming in two classes to further their understanding of core topics
- Graded students' project and lab submissions and provide constructive and detailed feedback

February 2021 - April 2021

- Assisted professor in CS Programming class by helping students understand C++ and its object-oriented features
- Reviewed student works giving productive comment after grading submissions

### High School Programming Lecturer - DigiPen Institute of Technology

November 2021 - March 2022

- Taught 12th grade students in Collège Notre-Dame de Jamhour (located in Baabda, Lebanon) via remote technology
- Coached C language skills by lecture, quiz and assignments
- Led the Tank game project to help students improve their understanding of C language and the structure of a game program

### Programming Camp Guardian - DigiPen Institute of Technology

July 2019 - August 2019

- Supported K12 students in terms of all education courses they got during programming camp include Unity game programming, art and sound design
- Managed student life throughout camp period such as accommodation, city tour, transportation, etc.
- Resolved conflicts between students and camp organizer and communicate with parents to reduce their worries

## Education

### DigiPen Institute of Technology

March 2015 - April 2022

Bachelor of Science in Computer Science and Game Design

## Additional Information

### Military Service: Sergeant, Republic of Korea Army Reconnaissance and Surveillance Unit

2016 - 2018

- Received an award certificate medal from United Nations Command MAC secretary and awarded certificate from regimental commander for marvelous mission performance at the border against North Korea