Seonghwan (Hwany) Oh

 $+1~(912)~940\text{-}7067 \quad | \quad \underline{\text{soh}9886@\text{sdsu.edu}} \quad | \quad \text{linkedin.com/in/hwanyo} \quad | \quad \text{fivestar}1103.\text{github.io/portfolio}$

EDUCATION

San Diego State University (Exchange Program)Jan. 2025 – May. 2025B.S. in Computer Science (Exchange Semester)San Diego, CA, USAUniversity of Seoul | Cumulative GPA: 3.58Mar. 2019 – Feb. 2026B.S. in Computer Science, Minor in Data ScienceSeoul, South Korea

PROFESSIONAL EXPERIENCE

Unity Developer Intern | Skills: Unity, C#, Shader, Vuforia Engine (AR), Figma Aug. 2024 Mobile App Development Cooperation Seoul,

Aug. 2024 – Oct. 2024 Seoul, South Korea

- Built and published two mobile games on **iOS** & **Android** platforms using **Unity**:

 Ppukku's Grand Adventure: Grow Longer! (iOS) | Ppukku's Grand Adventure: Catch It! (iOS)
- Implemented **DFS-based surround detection**, **object pooling**, and **physics-driven** interactions to boost **performance** by 35%.
- Authored technical guides and debugging instructions to streamline onboarding processes.

Research Assistant Intern | Skills: Data Analysis, SQL, Flask, Javascript, GCP SKYGG

Dec. 2022 – May. 2023 Seoul, South Korea

- Assisted in building a Web3 gaming playground and blockchain analytics platform.
- Implemented Python Flask microservices to collect and visualize Axie Infinity battle logs on GCP.
- Utilized MySQL for storing real-time player data and generating interactive dashboards.

PROJECT EXPERIENCE

Game Programmer | Skills: Unity, C#, Systems Programming, CSV Data Handling

Mar. 2024 - Current
GameMakers (Unity Certified Game Developers Club) 8th - Team Fate

Remote

- Developing a Unity 2D escape-room game with a 6-member team, targeting a March 2025 release.
- Created an event-driven architecture enabling flexible customization of in-game states via CSV scripting.
- Implemented a cylindrical lock dial using trigonometry and real-time checks for puzzle progression.

Procedurally Generated Puzzle Adventure with Speech AI | Skills: Unity, C#, PCG | Sep. 2024 – Dec. 2024 | Capstone Project in Computer Science / Team Leader | Seoul, South Korea

- Designed and implemented **procedural content generation** algorithm utilizing **Cellular Automata**, **Delaunay Triangulation**, **Minimum Spanning Tree** (MST), and **A* search** to create dungeon maps.
- Integrated **Speech-to-Text** (STT) and **Speech Emotion Recognition** (SER) technologies to enhance interactivity and emotional engagement within the game.
- Led team coordination on **project integration**, **version control**, and prototype development.

TECHNICAL SKILLS

Programming Languages: C/C++, C#, Python, JavaScript

Game Dev: Unity, Physics-based mechanics, Raycasting, Pathfinding Algorithms (A*, DFS, BFS)

Backend/Databases: Flask (Python), MySQL, Google Cloud Platform (GCP)

Web/Frontend: React, HTML5, CSS3

Tools & DevOps: Git/GitHub, Linux (Bash), GCC, Figma, Notion, Slack

Other Expertise: Systems Engineering, Troubleshooting, OOP, Vuforia (AR), Procedural Content Generation

TEACHING EXPERIENCE

Tutor – Support for International Students

University of Seoul Sep. 2024 – Dec. 2024

Provided structured guidance on programming, data structures, debugging, and algorithms.

C Programming Tutor

University of Seoul Apr. 2024 – Jun. 2024

Instructed C essentials: arrays, binary arithmetic, pointers, recursion, and Linux-based compilation.

MILITARY SERVICE

Military Interpreter

Republic of Korea Air Force Feb. 2021 - Nov. 2022

Facilitated communication between ROKAF and USAF A1(Manpower & Personnel) forces at Osan Air Base.

HONORS & AWARDS

Silver Award (3rd) - University of Seoul Programming Contest (UOSPC) 2024

Excellence Award (2nd) - University of Seoul Plankton Hackathon 2024

Grand Prize (2nd) for Best Games – GameMakers 8th Cohort

Merit-Based Scholarship (Half-Tuition) – Awarded for outstanding academic performance in Spring 2024