Seonghwan (Hwany) Oh

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EDUCATION

San Diego State University (Exchange Program)

B.S. in Computer Science (Exchange Semester)

University of Seoul | Cumulative GPA: 3.58
B.S. in Computer Science, Minor in Data Science

Jan. 2025 – May. 2025 San Diego, CA, USA Mar. 2019 – Feb. 2026 Seoul, South Korea

PROFESSIONAL EXPERIENCE

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

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 **gameplay efficiency** by 35%.
- Authored technical guides and debugging instructions to streamline onboarding processes.

Research Assistant Intern | Skills: Data Analysis, 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 SQL / MySQL for storing real-time player data and generating interactive dashboards.

PROJECT EXPERIENCE

Game Programmer | Skills: Unity, C#, Systems Programming, CSV Data Handling GameMakers (Unity Certified Game Developers Club) 8th – Team Fate

Mar. 2024 – Current 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, WebGPU, Assembly

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 Engine (AR)

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