Seonghwan (Hwany) Oh

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EDUCATION

San Diego State University (Exchange Program) — Jan. 2025 – May. 2025
*B.S. in Computer Science (**Exchange Semester**)* — *San Diego, CA, USA*

University of Seoul | *Cumulative GPA: 3.58* — Mar. 2019 – Feb. 2026
B.S. in Computer Science, Minor in Data Science — *Seoul, South Korea*

PROFESSIONAL EXPERIENCE

Unity Developer Intern | *Skills: Unity, C#, Shader, Vuforia Engine (AR), Figma* — Aug. 2024 – Oct. 2024
Mobile App Development Cooperation — *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* — Dec. 2022 – May. 2023
SKYGG — *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* — 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, WebGPU, Assembly

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

Web/Frontend: React, HTML5, CSS3

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

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

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