

Junyeong Heo

 LinkedIn @junyeongheo |  GitHub @junyeongh

yeong.heo@outlook.com | +852 5237 0535(HK) | +82-10-3872-0535(KR)

Education

City University of Hong Kong

Hong Kong SAR

B. E. in Computer and Data Engineering, Department of Electrical Engineering

Coursework: Cloud Computing Systems, Database Systems, Big Data, and Human-Computer Interaction

Vanderbilt University

Nashville, TN, USA

Study abroad coursework in the School of Engineering

January 2024 - May 2024

Coursework: Applied Machine Learning, Artificial Intelligence, FPGA Design, and Programming Languages

Technical Skills

Programming Languages Python, JavaScript/TypeScript, C/C++, Rust

Frameworks and Tools React, Next.js, DBMS (MySQL, PostgreSQL), React Native, Git, GitHub, CI/CD (GitHub Actions), AWS, Containerization (Docker), PyTorch, Scikit-Learn, SciPy, OpenCV

Professional Experience

MotoNerv Limited

Hong Kong SAR

Hardware (Embedded Systems) Engineering Intern

June 2023 - August 2023

- Developed an MCU-based (ESP32) dashcam prototype for video streaming and collect data
- Preprocessed on-car sensor and location data tailored for AI video analytics in the AWS cloud environment

Elite Prep Academy

Busan, Republic of Korea

Academy Assistant

January - May 2022

- Managed the academy's weekly instruction plan
- Arranged academy operation and instruction schedule

Private Tutoring

Busan, Republic of Korea

International Baccalaureate (IB) Diploma Programme (DP) Mathematics & Electrical Engineering Tutoring

Projects

Avatar community application



Squash Motion Tracking (Final Year Project)



- Participated in Hong Kong Sport Institute (HKSI) initiated computer vision project for athlete performance analysis
- Developed tracking system and deep learning models for player movement analysis from match videos
- Implemented video phase algorithms to extract status using pose and ball tracking for professional athletes

Hand tracking-based control interface



- Engineered Human-Computer Interaction system using OpenCV and computer vision framework, *mediapipe*
- Designed intuitive navigation to enhance the usability of devices from a distance

Road trip recommender system

- Developed a personalized recommender system with active user interaction through web frontend
- Integrated Large Language Model (OpenAI API) for user interface with prompt engineering

Leadership Activities & Other Experiences

Student Resident (Senior Resident Tutor)

July 2024 - July 2025

Student Resident Cabinet (General Officer)

October 2022 - May 2023

Military service

August 2020 - February 2022

Language: Korean (Native), and English (Proficient)