

Seungheon (Hoon) Yang

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EDUCATION

University of California, Irvine

Bachelor of Science in Computer Engineering

Sep 2021 – Present

Cumulative GPA: 3.73/4.00

Honors & Memberships:

IEEE-Eta Kappa Nu (HKN) Honor Society – UCI Chapter

Dean's Honor List (7 of 8 quarters)

Relevant Coursework: Advanced C Programming, Computer Architecture, Computer Networks, Network Analysis I–II, Digital Systems and Logic, Discrete Mathematics

PROJECTS

Zotbotics | *Python, Arduino C/C++, Raspberry Pi*

Sep 2025 – Present

Software Subteam

- Implementing software tools for monitoring robot system status and telemetry during development and testing
- Integrated an AI chatbot pipeline using STT, TTS, and LLM-based text response APIs, enabling natural human–robot interaction

Portfolio Website | *HTML, CSS, JavaScript*

Dec 2025 – Present

- Designed and developed a fully responsive personal portfolio website showcasing technical projects, skills, and experiences across desktop, laptop, and mobile devices
- Integrated email functionality using EmailJS to enable direct contact through the website

Drone Project | *Embedded Systems, UAV Hardware, ArduPilot*

Sep 2025 – Dec 2025

- Assembled and integrated UAV hardware, including flight controller, ESCs, motors, GPS, batteries, and radio systems, with extensive soldering and system validation
- Configured ArduPilot and ESP32-based telemetry to execute GPS-guided autonomous waypoint missions with real-time communication to a ground control station

JavaFX Calculator Application | *Java, JavaFX, CSS*

Nov 2025

- Designed and developed a JavaFX-based GUI calculator supporting both basic arithmetic and advanced mathematical operations
- Applied object-oriented design principles to separate UI, logic, and testing layers, and customized the interface using CSS

EXPERIENCE

Undergraduate Research – AICPS Lab

Sep 2025 – Present

Research Assistant (Supervisor: Sadman Sakib, Ph.D. Student)

Irvine, CA

- Conducted a research project under Professor Mohammad Al Faruque to develop a multi-robot navigation framework using vision-language models, enabling collaborative planning, message sharing, and assisted navigation across multiple UAVs
- Developed an aerial VLN evaluation and visualization pipeline in OpenUAV, including trajectory analysis, metric extraction, and scene-level video generation
- Implemented closed-loop simulations, custom inputs, and automated scripts to streamline large-scale OpenUAV experiments
- Developing a zero-shot LLM-based software controller deployed on a physical drone (DJI TELLO)

Institute of Electrical and Electronic Engineers (IEEE)

Sep 2025 – Present

University of California, Irvine

Irvine, CA

- Engaged in the Open Project Space (OPS) program, contributing to the development of innovative engineering projects
- Developing and optimizing microcontroller-based applications using Raspberry Pi and Arduino

CERTIFICATIONS

DeepLearning.AI TensorFlow Developer Specialization – DeepLearning.AI via Coursera

Feb 2025 – Mar 2025

Embedded Software Development with C – EDUCBA via Coursera

Feb 2025 – Mar 2025

SQL Developer (SQLD) – Korea Data Agency

Jun 2025 – Sep 2025

SKILLS

Programming languages: Python, C/C++, Java, HTML, CSS, Oracle SQL, Arduino C/C++, JavaScript, MATLAB, LC–3 Assembly

Tools&Libraries: Linux, TensorFlow, NumPy, Pandas, Matplotlib, Seaborn, OpenCV, Git, OpenUAV, DJITelloPy, Xilinx Vivado

Embedded&Hardware: Embedded System, Soldering, Circuit Analysis

Languages: Native in Korean, Fluent in English