Seungheon (Hoon) Yang

[hoonyang00@gmail.com] | [Irvine, CA 92617] | [+1(949) 419-7812]

EDUCATION

University of California, Irvine *Sep 2021 – Present*
Bachelor of Science in Computer Engineering **Cumulative GPA:** 3.74/4.00
Honors & Memberships:
IEEE-Eta Kappa Nu (HKN) Honor Society, UCI Chapter – Inducted Member *Dec 2025 – Present*
Dean's Honor List: Winter 2022, Spring 2022, Fall 2022, Fall 2024, Winter 2025, Spring 2025
Relevant Coursework: Calculus I-III, Linear Algebra, Differential Equations, Discrete Mathematics, Digital Systems and Logic, Computer Networks, Advanced C Programming, Engineering Probability, Network Analysis I-II, Organization of Digital Computers

WORK EXPERIENCE

Military Service in Korea **Yeoncheon-gun, South Korea**
Information and Communication Specialist | Republic of Korea Army *Dec 2022 – Jun 2024*
- Conducted quarterly on-site visits to 1 direct unit and 4 subordinate battalions to provide comprehensive computer security guidance and inspection of IT systems and infrastructure, ensuring adherence to cybersecurity protocols for enhanced operational reliability
- Diagnosed and resolved system-level SW/HW incidents across 5 units, cutting downtime by 25% via preventative maintenance playbooks and root-cause tracking (ATCIS)
- Hardened ATCIS access controls and streamlined LAN/WAN topology, enabling secure migration of internal/external servers without data incidents

PROJECT EXPERIENCE

OPEN PROJECT SPACE – IEEE @ UCI **Irvine, CA**
Trainee *Sep 2025 – Present*
- Building 8 hands-on projects and a custom ESP32-based rover capstone while practicing soldering, bread boarding, microcontroller coding, sensor integration, and hardware debugging
- Implementing C/C++ firmware with UART, I²C, SPI, PWM, and interrupts/timers; designing a control PCB in KiCad and integrating sensors/displays (AHT20, ultrasonic, TM1637) to deliver a fully functioning rover system

DRONE PROJECT *Sep 2025 – Dec 2025*
- Executed hands-on work with microcontrollers, radio systems, soldering, FAA TRUST training, motors, power/batteries, and ArduPilot; Conducting GPS-guided waypoint missions with wireless telemetry to a ground control station
- Implemented ESP32 workflows including flight-mode changes, Remote ID, UTM, and cloud integration of drones

RESEARCH EXPERIENCE

Autonomous and Intelligent Cyber-Physical System (AICPS) Lab **Irvine, CA**
Research Assistant (Supervisor: Sadman Sakib, Ph.D. Student) *Sep 2025 – Present*
- Developed aerial VLN pipelines 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
- Built Python-based control pipelines for real-time flight, video recording, and autonomous maneuvering using DJITelloPy

CERTIFICATIONS & SPECIALIZATIONS

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 *Sep 2025*

SKILLS

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

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

Hardware/EE: PCB design, Soldering, Circuit Analysis, Microcontrollers, Embedded System, Oscilloscope

Languages: Native in Korean, Fluent in English