Doyun (Logan) Kim

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Education

University of Washington Seattle, WA

Bachelor of Science in Electrical and Computer Engineering – GPA: 3.56 /4.0 *Exp. Grad. June 2026*

- **Relevant Coursework:** Java, Python, MATLAB, Circuit Analysis, Signal Analysis and Processing, Electromagnetism, Bayes' Theorem, Differential Equations, Laplace Transformation, Linear Algebra, CAD Design (SolidWorks)

Projects

Quadrupedal Robot | *Python, ROS, Fusion 360, Raspberry Pi* June 2024 – Present

- Designed and developed a quadrupedal robot that can walk on its own in ROS2 framework
- Modeled body parts for the robot in Fusion 360 by using CAD modeling skills such as applying geometric constraints for 2D sketches and detecting interferences between movable parts
- Wrote a Python script to test the functionality of electronic components including servo motors, cameras, and ultrasonic sensors by importing necessary libraries from manufacturers and consulting their documentation
- Calibrated the servo motors responsible for the robot's locomotion by applying the knowledge of forward and inverse kinematics and simulating its physics in Gazebo

Face Tracking Turret | *Python, Arduino, OpenCV, IR Communication* Jan 2024 – May 2024

- Designed and developed a face-tracking turret capable of detecting and tracking faces in real-time using the Haar Cascade algorithm from OpenCV library
- Integrated the Python script and Arduino sketch by setting up a serial communication with PySerial to transmit real-time face-detection data necessary for precise servo motor control of the turret
- Added a mode to manually control the rotation of the turret and activation of the laser unit by installing the IR receiver and configuring it using IRremote library

Experience

L'Space NPWEE Academy May 2024 – July 2024

Student *Remote*

- Participated in NASA Proposal Writing and Evaluation Experience (NPWEE) Academy and drafted quad charts for potential solutions to technological pain points in NASA's space missions
- Trained in the important criteria necessary to write selectable proposals, such as the proposed idea's eligibility for NASA's New Technological Report system
- Worked as an engineer to research engineering details of thermoelectric materials and drafted a group proposal for a review conducted by NASA professionals

US 8th Army Korean Augmentation to the United States Army June 2022 – October 2023

Signal Intelligence Voice Interceptor (35P) *USAG Humphreys, Pyeongtaek, South Korea*

- Led a team of seven intelligence analysts in the collection and exploitation of foreign communications, ensuring rapid detection of critical information and efficient workload distribution under high-pressure, time-sensitive conditions
- Acquired Secret-level security clearance, transcribed foreign communications, and drafted relevant technical reports
- Operated and maintained the signal processing software that manages incoming communication traffic with different radio frequencies

Skills

Programming: Python, Java, C++, Bash

Tools: Fusion 360, Autodesk Eagle, SolidWorks, VSCode, Arduino IDE, Git (GitHub, GitLab), ROS, Docker, Jekyll, Microsoft Azure, Microsoft Excel, Microsoft Words, Google Workspace, Notion

Technical Skills: 3D printing, CAD Modeling, Linux (Ubuntu)