

Seungho Lee, Undergraduate.

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Education

- 03/2018 – Present **Seoul National University, Seoul**
Double major in *Mechanical Engineering & Artificial Intelligence*.
Current GPA 4.00/4.30
- 03/2015 – 02/2018 **Daegu Science High School, Daegu**
GPA 4.05/4.30

Skills

- Coursework **Completed Courses:**
– Math (Linear Algebra, Differential Equations, Probability)
– Mechanical Engineering (Robotics, Dynamics, Mechatronics)
– Computer Science (Data Structures, Algorithms, Machine Learning)
In Progress:
– **Artificial Intelligence**, Fundamentals of Deep Learning
- Coding **Python, Java, C/C++, Matlab, ROS, LaTeX**




Experience

- 08/2023 **Ajin USA**
Production Team Intern.
Topic - Lot tracking system improvement in future factory.
- Participated in logistics tracking project, exploring strategies and future plans for improving the lot tracking system.
- 07/2022 – 08/2022 **SNU DYROS Lab**
Humanoid Team Intern.
Topic - Franka-Panda Robot Compliant Control.
- Participated in robot arm research, simulating the movement of the 7DOF robot arms' end effector to reach the target position.
- Planned the path of the end effector in SE(3) space and implemented joint control to follow this path. Also incorporated force feedback along the trajectory to smoothly navigate around obstacles.
- C++, ROS in Linux.




Projects

- 05/2023 – Present **Improving remote driving performance.**
- Developed a real-time system to draw driving guide lines on the screen for improving remote driving performance.
- Vehicle dynamics & camera intrinsic are used.
- Python in Linux.

Projects (continued)

- 03/2023 – 10/2023  **Developing self-driving car.**
- Developed three aspects of autonomous driving: perception, decision-making, and control to participate in the competition.
- Mainly worked on the path planning part involving RRT*, clothoid paths. Also contributed to the control part, dealing with Stanley control, and the perception part, using the YOLO model.
- C++, Python, ROS in Linux.
- 05/2023 – 06/2023  **Sorting hand-written letter image.**
- Developed a neural network for sorting hand-written letter images, utilizing a shared CNN + RNN approach.
- Python.
- 09/2022 – 12/2022  **Developing intrusion alarm system.**
Developed an real-time intrusion alarm system integrating electrical circuit system with the YOLO model.
- Python.

Honors & Awards

- 10/2023  **College Student Creative Mobility Contest**, Silver Prize awarded by Korea Transportation Safety Authority.
- 12/2022  **Mechatronics Competition**, Silver Prize awarded by Doosan Infracore.
- 02/2017  **Korean Young Physicists' Tournament**, Silver Prize awarded by Korean Society for the Gifted & Korean Physical Society.