# Hanjun Kim

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## **EDUCATION**

## Seoul National University, Republic of Korea

03/2024 -

• M.S. student in Department of Future Automotive Mobility

## **Technical University of Munich, Germany**

03/2023 - 08/2023

• Exchange student in Department of Mechanical Engineering

#### Seoul National University, Republic of Korea

03/2018 - 02/2024

• Bachelor in Department of Mechanical Engineering

#### RESEARCH EXPERIENCE

## **Robust Perception and Mobile Robotics Lab**

03/2024 - Present

- · Heterogeneous radar dataset in complex urban environment for multi-session radar SLAM
- Focusing on Autonomous driving, SLAM, sensor fusion, and deep learning

#### **Artificial Intelligence Semiconductor Engineering Lab**

09/2022 - 02/2023

- Autonomous driving project internship
- Analyzed and reviewed research and papers about Stereo vision, Semi-Global Matching and so on.
- 3D mapping using zed2i stereo camera using ROS1

## **Innovative Design and Integrated Manufacturing Lab**

09/2022 - 12/2023

- Developing collaborative robot system based on voice command.
- Construction of a system to control Doosan's robot arm using voice commands API and ROS1.

#### **KSPE 2023 Autumn Conference Poster Presentation**

11/2023

• Developing a vision-based collaborative robot automation and voice control system using autonomous mobile robot arms

## **Related Courses**

- Global Engineering Internship
- Theory and Lab of IoT, AI, Big Data
- Automotive engineering
- Introduction to Deeplearning(Technical University of Munich)
- Autonomous Driving(Technical University of Munich)
- Mechanical System Modeling and Control

## **EXTERNAL ACTIVITIES**

# Sequor Robotics, Robot software and hardware solutions startup

**April 2023 - August 2023** 

- Industry-academic cooperation project.
- Pedestrian trajectory prediction algorithm development.

## SUM, Self-driving startup Internship Field practice

January 2023 - February 2023

- Practice on positioning process using Kalman filter based on sensor data.
- Distant object tracking algorithm using Lidar, Radar and Vision.

- CARLA simulation open scenario production.
- PID controller design practice using Simulink to implement lateral and longitudinal control.

# Hyundai America Technical Center, Inc. Headquaters Global Internship June 2022 - July 2022

- Benchmarking, development projects in several departments including AD department.
- Lab tour and experience various departments.

#### Visual Camp, eye tracking technology startup Internship

May 2022 - June 2022

- App planner/developer.
- Business proposal to enter the global market.

#### Research Assistant of Hyundai, SNU's Industrial Cooperation Group

March 2022 - June 2022

- Produce a report that summarizes the latest technology trends.
- Class assistant work and class-related administrative work.

#### Sigma Intelligence, a robot club in Electrical Engineering

March 2019 - December 2020

• Made health trainer robot using Gyro sensor, ultrasonic sensor, and Python.

## Other careers

- 2024.03` Excellent Research Award, Dept. of System Semiconductor Engineering for AI, SNU
- 2023.12` Outstanding BS Thesis Award, Dept. of Mechanical Engineering for AI, SNU
- 2023.11` Kaggle ML4ME Object detection challenge 1st place
- 2022.12` Seoul National University x Hyundai Doosan Infracore Mechatronics Contest Grand Prize
- 2020.02` Microsoft Office Specialist Master
- 2019.05` Seoul National University GECE The Action Leadership Award
- 2017.12` The 7th U.S. Embassy Seoul UCC Contest Semi-finalist
- SNU's startup club SNUSV's 30th generation
- Artificial Intelligence Camp Assistant Instructor(likelion x newsac)
- MiraeAsset Park Hyunjoo Foundation 28th Scholarship Student