

# Junseo Min — Researcher

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## Education

### Kwangwoon University

Robotics

Major

### Kwangwoon University

Computer Science

Minor

### Kwangwoon University

Robot Intelligence

Micro Module

### Korea Digital Training

Autonomous Driving Technician Training Program

bootcamp

2023.05–2023.10

## Skills & Interests

**Programming:** C++, Python, ROS1/2, PyTorch

Strong

**Research Interest:** SLAM, Navigation, Localization, DeepLearning

Professional Interests

## Certifications & Awards

**TOEIC:** Score: 915 (May 2025)

English Proficiency Certification

**Scholarship:** KRW 1,118,000 (≈ USD 1,100, Summer 2025)

Awarded by Kwangwoon University

## Career

### Cheil Worldwide

2022 Samsung Unpack Project - Web QA

Seoul, South Korea

2022.6–2022.09

- Conducted QA for product description pages and collaborated with overseas teams.
- Developed an interest in software development, leading to a Computer Science minor.

### Ubiquitous & AI Lab

Undergraduate Research Assistant

Seoul, South Korea

2022.12–2023.12

- Studied machine learning fundamentals and transformer attention modules through research papers and advisor discussions.
- Developed a stock price prediction model for the KRX competition using TensorFlow and advanced deep learning techniques.

### Immersion

Autonomous Driving Developer

Seoul, South Korea

2023.12–2024.09

- Built outdoor HD maps and implemented SLAM pipelines for autonomous robots using 3D LiDAR and ROS2.
- Solved technical challenges like sunlight interference and resource limits on Jetson Orin.

### Machine Perception and Intelligence Lab (GIST)

Research Intern

Gwangju, South Korea

2024.06–Present

- Designed LiDAR reconstruction models using Point Transformer V3 and Perceiver architectures.
- Conducted research on localization-related models and advanced 3D reconstruction techniques

## Activities

### Kwangwoon University

Academic Research Club

Baram

2020.03–2020.11

### Kwangwoon University

Student Council

Robotics Department

2020.03–2020.11

## Projects

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**LiDAR Upsampling for Localization:** Researched deep learning-based point cloud upsampling to improve localization, using PointTransformer V3 and TULIP as baselines.

**HD Map Implementation:** Developed a high-definition map for advertising robots using ROS and FAST-LIO2. Researched sunlight interference solutions.

**Attention Robot Implementation:** Implemented Stanley controller, path planning, and NDT-OMP localization in ROS2, optimizing performance with OpenMP and Eigen.

**Stock Prediction Model:** Built a Transformer-based stock prediction model using KOSPI data.

**SmartFarm worker assistant Robot:** Developed end-to-end system for mushroom harvesting robot.

## Articles

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**Junseo Min, Inseok Jeon, Sumin Lee, Yunkyo Hong, Yaesop Lee, "AI-Based Worker Assistant Robot: Shaping the Future of Smart Farms", ICROS 2023**