

Junseo Min — Researcher

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Education

Kwangwoon University <i>B.E. in Robotics (Major)</i> <i>B.S. in Computer Science (Minor)</i> <i>Micro Module in Robot Intelligence</i>	Seoul, South Korea 2020.03–2026.02
Korea Digital Training <i>Autonomous Driving Technician Training Program, Bootcamp</i>	Seoul, South Korea 2023.05–2023.10

Articles

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

Career

Machine Perception and Intelligence Lab (GIST) <i>Research Intern</i>	Gwangju, South Korea 2024.06–Present
<ul style="list-style-type: none">○ Designed LiDAR reconstruction models using Point Transformer V3 and Perceiver architectures.○ Conducted research on localization-related models and advanced 3D reconstruction techniques	
Immersion <i>Robot Engineer (full-time)</i>	Seoul, South Korea 2023.12–2024.09
<ul style="list-style-type: none">○ 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.	
Ubiquitous & AI Lab <i>Undergraduate Research Assistant</i>	Seoul, South Korea 2022.12–2023.12
<ul style="list-style-type: none">○ 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.	
Cheil Worldwide <i>2022 Samsung Unpack Project - Web QA (intern, full-time)</i>	Seoul, South Korea 2022.6–2022.09
<ul style="list-style-type: none">○ Conducted QA for product description pages and collaborated with overseas teams.○ Developed an interest in software development, leading to a Computer Science minor.	

Projects

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.

Awards & Scholarship

Scholarship

KRW 1,118,000 (\approx USD 1,000)

Academic Excellence Scholarship (Merit-based)

Kwangwoon University

Summer 2025

Skills & Interests

Language.....

TOEIC

Score 915

English proficiency test

ETS

May 2025

Programming.....

C++, Python, ROS1/2, PyTorch

Research Interest.....

SLAM, Navigation, Localization, DeepLearning

Activities

Kwangwoon University

Academic Research Club

Baram

2020.03–2020.11

Kwangwoon University

Student Council

Robotics Department

2020.03–2020.11

Republic of Korea Army

Military Service

Military Instructor

2020.12–2022.05