



# JaeWon Lee

ROBOTICS · MULTI-ROBOT · SLAM

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“Passion is the genesis of genius.”

## Summary

This is Jaewon Lee, who wants to be a Multi-Robot engineer and Cooperative Autonomous Driving engineer. I am interested in Robotics, SLAM, Multi-Robot System. I think Robotics can help the development of the world a lot. I want to study a lot and approach the world.

## Research Interests

**Multi-Robot** Exploration, Navigation, Path Planning, Collision Avoidance, Map Fusion

**SLAM** Visual SLAM, Visual Odometry, Optimization

## Education

### KwangWoon University

Seoul, S.Korea

B.S. IN SCHOOL OF ROBOTICS

Mar. 2020 - Feb. 2024(Expected)

- Current GPA : 3.98/4.50, Current Major GPA : 4.16/4.50
- Club : BARAM Robotics (Robotics Academic Group) - [2022 Vice President], Mar.2020-Present

## Work Experience

### Robotics A.I. LAB. @KwangWoon Univ

Seoul, S.Korea

UNDERGRADUATE LAB INTERN (ADVISOR : PROF. JUNGHYUN OH)

Jan. 2022 - Jun. 2022

- Research on Visual SLAM and Computer Vision
- Studying Visual SLAM and implementing Multi-Robot SLAM, Exploration and Path-Planning

## Skills

**Programming** C++/C, Python, Matlab

**DevOps** ROS, Git

**Framework** Pytorch, Tensorflow, Keras, Unity

**Languages** Korean, English

## Extracurricular Activity

### Technical Blog - lee-jaewon.github.io

Github blog

WRITER

Jul. 2021 - Present

- Writing posts about paper review, development, study of Interests.
- Studying through writing and sharing.

### Autonomous Driving Simulation with Reinforcement Learning

BARAM Robotics

PERSONAL TOY PROJECT

Sep.2021 - Nov.2021

- Autonomous-driving simulation through DQN Reinforcement algorithm in self-made simulator with unity.
- Reward management using DQN, CNN, and Laser Sensor.

### Multi-Robot Exploration

BARAM Robotics

PERSONAL TOY PROJECT

Mar.2022 - Present

- Implementation of ROS-based Multi-Robot SLAM.
- Implementing Frontier Based Exploration and Allocation Algorithm.

## Educational Activities

## **AI Genius Academy Mentoring**

TEACHING ASSISTANT

- Project Assistant with Arduino and Raspberry Pi
- Support students to experience AI and proceed with the project through a Teachable Machine.

*Organized by Micro School*

*Nov.2021*

## **Samsung Electronics App Development Mentoring**

TEACHING ASSISTANT

- MIT App Inventor training and Project Assistant.

*Organized by Micro School*

*Jan.2022*