

# 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: 4.06/4.50, Current Major GPA: 4.28/4.50
- Club: BARAM Robotics (Robotics Academic Group) [2022 Vice President], Mar.2020-Present

# Work Experience

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

Seoul, S.Kored

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

#### ROBOMATION

Songpa-gu, Seoul, S.Korea

Jun. 2022 - Aug. 2022

• Research and Development Part Intern

Ready

R&D INTERN

#### 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

 $\bullet \ \ \text{Autonomous-driving simulation through DQN Reinforcement algorithm in self-made simulator with unity.}$ 

• Reward management using DQN, CNN, and Laser Sensor.

#### **Multi-Robot Exploration**

BARAM Robotics

PERSONAL TOY PROJECT

Mar.2022 - Jun.2022

• Implementation of ROS-based Multi-Robot SLAM.

• Implementing Frontier Based Exploration and Allocation Algorithm.

# **Educational Activities**

### **AI Genius Academy Mentoring**

TEACHING ASSISTANT

Organized by Micro School

Nov.2021

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

#### **Samsung Electronics App Development Mentoring**

Organized by Micro School

Jan.2022

**TEACHING ASSISTANT**• MIT App Inventor training and Project Assistant.