# JUNWOON LEE

junwoonlee@jrl.eng.osaka-u.ac.jp, this CV is temporary version

#### REASEARCH INTEREST

SLAM, mapping, Computer vision, Sensor fusion, Path planning

### **EDUCATION**

### University of Tokyo

April, 2023 - March, 2025 (expected)

M.S. Candidate in Human & Engineered Environmental Studies

Advisor: Prof. Atsushi Yamashita

# Osaka University

April, 2017 - March, 2023

B.E. in Mechanical Engineering

Thesis: LiDAR-visual SLAM (Simultaneous Localization And Mapping) for Online Mapping of Unpaved Road Surface

Advisor: Prof. Masamitsu Kurisu, Prof. Masato Ishikawa

### REASEARCH EXPERIENCE

### Graduate Reasearch, University of Tokyo

2023 April - 2025 March (expected)

Real World Robot Informatics Lab.

In developing a novel SLAM system.

# Undergraduate Reasearch, Osaka University

2022 April - 2023 March

Komatsu MIRAI Construction Equipment Cooperative Research Center

Developed a unpaved road surface mapping system using a novel LiDAR-visual SLAM.

Resulted in an thesis, a publication in JFR (in review) and a patent in Japan (pending).

## PUBLICATIONS & WORKING PAPERS

#### Journal

[1] **J.Lee**, M.Kurisu, K.Kuriyama. "Three-dimensionalized feature based LiDAR-visual SLAM for online mapping of unpaved road surface," *Journal of Field Robotics*. (in preparing)

# Patent

[1] waiting for pending

### **SKILLS**

#### Reasearch Skills

Program Languages: C++, C, Python, MATLAB

Libraries: GTSAM, Ceres Solver, OpenCV, PyTorch, Keras, Open3D, PCL

Frameworks: ROS, Github, LATEX

Sensors: LiDAR, Camera, IMU, RTK-GNSS

# Languages

Korean(native), Japanese(near-native), English(proficient)

### AWARDS AND SCHOLARSHIPS

Rotary Yoneyama Memorial Foundation Scholarship

April, 2023 - March, 2025

A stipend of JPY 140,000(about USD 1,200) per month.

# Korea-Japan Joint Government Scholarship Program

April, 2017 - March, 2023

A stipend of JPY 120,000(about USD 1,000) per month and tuition waiver for 4 years.

# **EXPERIENCE**

The 23rd Security Brigade, Republic of Korea Army Sergeant, Coastal frontline guard (Military duty)

April, 2020 - October, 2021

# REFERENCES