Gyubeom Edward Im

RESEARCH INTEREST

SLAM, Visual(-inertial) Odometry, LiDAR(-inertial) Odometry

WORK EXPERIENCE

2020-Present	**Samsung Electronics Co., Ltd.**, *SLAM Research Engineer*, System LSI Business
2019-2020	**Atlas Rotoics Co., Ltd.**, *Visual SLAM Engineer*

EDUCATION

2018-2020	**Seoul National University**, *M.S.*, Department of Transdisciplinary Studies, The Graduate School of Convergence Science and Technology Lab: Dynamic Robotic System Lab (DYROS Lab, https://dyros.snu.ac.kr) Advisor: Prof. Jaeheung Park (park73@snu.ac.kr) Thesis: Parking Line Based SLAM Approach for Localization and Parking Space Detection
2010-2018	**Kookmin University**, *B.S.*, Automotive Engineering Activity: Team Member of Student Formula Racing Team and Participated in FSAE 2014 Competition.

ACTIVITY

2024-Present	**KETI**, *SLAM Instructor*, Korea Electronics Technology Institute
2023-Present	**Youtube**, *SLAM-related Contents*, Channel Name: ALIDA
2020-Present	**ALIDA Tech Blog**, *SLAM-related Contents*, alida.tistory.com
2018	**Robotics Boot Camp**, *ROS Instructor*, Seoul National University, DYROS Laboratory
2017	**CATIA and CAD**, *Instructor*, Kookmin University
2016-2020	**Tech Blog**, *Engineering-related Contents*, blog.naver.com/gyurse

PUBLICATIONS

2023	**Gyubeom Im**, Keunjoo Park, Junseok Kim, Bongki Son, Seungchul Shin, Haechang Lee. "Live Demonstration: PINK: Polarity-based Anti-flicker for Event Cameras." Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops. 2023.
2019	**Gyubeom Im**, Minsung Kim, Jaeheung Park, "Parking Line Based SLAM Approach Using AVM/LiDAR Sensor Fusion for Rapid and Accurate Loop Closing and Parking Space Detection", Sensors, 19 (21), pp. 4811, 2019, ISSN: 1424-8220.
2019	Kyujin Park, **Gyubeom Im**, Minsung Kim, Jaeheung Park, "Parking Space Detection based on Camera and LIDAR Sensor Fusion", Journal of Korea Robotics Society, 14 (3), pp. 170-178, 2019, ISBN: 1975-6291.
2018	**Gyubeom Im**, Minsung Kim, Joonwoo Ahn, Minsoo Kim, Jaeheung Park, "V-Rep Simulator for Autonomous Vehicle Research in Parking lot Environment", The Korean Society of Automotive Engineers Annual Autumn Conference, Kangwon, Korea, 14.11.2018.

2018   Minsung Kim, **Gyubeom Im**, Joonwoo Ahn, Minsoo Kim, Jaeheung Park, "Autonomous parking algorithm using automatic selection of forward and backward switching points via model predictive control", The Korean Society of Automotive Engineers Annual Autumn Conference, Kangwon, Korea, 14.11.2018.

2018   Joonwoo Ahn, Minsoo Kim, **Gyubeom Im**, Minsung Kim, Jaeheung Park, "Development of Autonomous Valet Parking System and Simulation Result", The Korean Society of Automotive Engineers Annual Autumn Conference, Kangwon , Korea, 14.11.2018.

SKILLS

Expertise	SLAM, Visual(-inertial) Odometry, LiDAR(-inertial) Odometry
Programming	C++, Python
Libraries	ROS, Eigen3, ceres, g2o, OpenCV, PCL

AWARDS

2023   Samsung Software Certification: Professional

2020   Best Paper Award of Master Thesis in Graduate School, Seoul National University

2017   Kookmin University Scholarship

2017   Kookmin University Scholarship

2016   Kookmin University Scholarship

2015   Kookmin University Scholarship

2014   2nd Place in Cost Section, FSAE 2014

2014   18th Place (1st Prize among the Asia Teams) in Total Performance, FSAE 2014