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# Edward Gyubeom Im

### WORK EXPERIENCE

2020-Present **Samsung Electronics Co., Ltd.**, *Research Engineer*, Signal and System Design Division, System LSI Business.

#### 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.

#### TEACHING EXPERIENCE

2018 Robotics Boot Camp, ROS Instructor, Seoul National University, DYROS Laboratory.

2017 CATIA and CAD, Instructor, Kookmin University.

#### SKILLS

Expertise SLAM, Visual Odometry, Long-term Localization, Autonomous Navigation

Programming C/C++, Python

Softwares/Libs Windows, Linux, MacOSX, ROS, Eigen, g2o, PCL, OpenCV, Matlab, CATIA, SOLIDWORKS

Tools Emacs, Vim, VSCode

#### PUBLICATIONS

- 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.

#### **AWARDS**

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