Hyunseup Jo

Contact

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https://github.com/soup1997

Research Experience

• Research Student at Tech University of Korea, Automotive Embedded System LAB,
South Korea   *Jul.2021-Present*

Research Interests

• Automotive Embedded Systems

• Path Planning, Vehicle Control

• Sensor Fusion

Education

Tech University of Korea   *Siheung, Gyeonggi*
B.S in Department of Electronics Engineering   *Mar.2017-Feb.2023*
Minor in Future Automotive Engineering

• **Total GPA**: 4.08 / 4.5, **Major GPA**: 4.14 / 4.5

Projects

2022 Autonomous Driving Contest, Kookmin Univ   ***AES LAB***
                                                                    Dec.2021-Jun.2022
- Link: https://github.com/2022-KMU-Autonomous-Driving-Contest
- Development of calculating curvature angle of vehicle, lateral control system using Stanley method
- Development of LiDAR Clustering using DBSCAN for obstacle recognition, obstacle avoidance system
- Development of curved lane recognition using sliding window method

2022 Capstone Design   *Tech Univ of Korea*
 Autonomous Driving Fire Suppression Robot   *Dec.2021-Jun.2022*
- Link: https://github.com/soup1997/SLAM-Based-Fire-Suppression-Robot
- Development of indoor autonomous driving system using SLAM, AMCL
- Development of PI control by obtaining the error of the target value with the motor encoder
- Development of estimating the distance by curve fitting with mono camera

Skills

Language: TOEIC (800)
Programming Languages: Python, C, MATLAB
Microcontrollers: Freescale, Atmel, STmicro
Operating Systems: Linux, ROS
Others: Git

Publication (Domestic)

• Hyunseup Jo, Sukhyun Seo, "Development of Autonomous Driving Robot
for Fire Suppression (화재 진압을 위한 자율주행 로봇개발)",
한국자동차공학회 추계학술대회, 2022

Awards And Honors

• Creative Project-Community of Practice (Gold prize), Tech University of Korea, South Korea   *Sep.2022*

• Academic Excellent Scholarship, Tech University of Korea, South Korea   *Dec.2021*

• President's Cup Robot Programming Contest (Encouragement prize), Tech University of Korea, South Korea   *Nov.2021*

• Academic Excellent Scholarship, Tech University of Korea, South Korea   *Jun.2021*

• Academic Excellent Scholarship, Tech University of Korea, South Korea   *Dec.2020*

• Academic Excellent Scholarship, Tech University of Korea, South Korea   *Jun.2018*

• Academic Excellent Scholarship, Tech University of Korea, South Korea   *Dec.2017*

Other Experience

1. Hyundai NGV Campus SOME/IP Lecture Teaching Assistant   *11th.Nov.2022*

 • Experienced in making lecture materials and examples about SOME/IP Protocol and Service Discovery

2. **University Teaching Assistant**

 • Microprocessor 1   *Mar.2022-Jun.2022*

 • Smart Vehicle   *Sep.2022-Dec.2022*

3. **Club: Ssibueong (Programming Academic Group)**

 • **Algorithm Study Group**   *Aug.2021-Sep.2021*

  • https://soup1997.tistory.com/category/Algorithm?page=2

 • Learning About Data Structures and Algorithms

• **Machine Learning Study Group**   *Jan.2021-Mar.2021*

 • https://soup1997.tistory.com/category/Machine%20Learning

 • Watching open course lectures and solve assignments

 • Learning about data pre-processing, regression, classification