

Sanghyun Park

AUTONOMOUS DRIVING SYSTEM · PERCEPTION · SLAM

37, Kyungsoo-daero 610-gil, Dong an-gu, Anyang-si, Gyunggi-do, Rep. of KOREA

□ (+82) 10-2387-4617 | ■ pash0302@naver.com | ★ SanghyunPark01.github.io | □ SanghyunPark01

"Can't get anything without trying"

Summary.

This is Sanghyun Park, who wants to become an 0.1% of autonomous driving engineer. I'm interested in Autonomous driving system of mobile robot and vehicle, Perception and SLAM. I think the more research on these technologies develops, the more convenient human life becomes. Therefore, I would like to contribute to this research.

Research Interests

Robotics Visual SLAM, Mobile Robot

Perception Moving Object Detection, Camera & LiDAR Sensor Fusion

Education

KwagnWoon University

Seoul, S.Korea

Mar. 2020 - Feb. 2024(Expected)

B.S. IN SCHOOL OF ROBOTICS

Current GPA: 4.09/4.5, Current Major GPA: 4.10/4.5
 Club: Baram (Robotics Academic Group) - [2022 Staff]

Work Experience _____

Robotics & A.I. LAB @KwangWoon University

Seoul, S.Korea

Undergraduate LAB Intern (Advisor : Prof.Junghyun Oh)

Research on Visual SLAM and Computer Vision

December. 2021 - Present

- Studying Visual SLAM for Dynamic Environmen
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Skills_____

Programming C++/C, Python, Matlab

DevOps ROS, Git, Docker

Frameworks Pytorch

Language Korean, English

Extracurricular Activity _____

Basic Autonomous driving software

Baram(Robotics Academic Group)

August.2021 - November.2021

C++, ROS, DEEPLEARNING

- I trained Yolov3 model for Object detection
- · It was implemented to make real-time judgment by receiving the type and coordinate value of the object recognized in Yolov3 through ROS
- This project is in my Github repository: **Basic_Autonomous-Driving-Software [Link]**

Visual Odometry with image preprocessing

Robotics & A.I. LAB (KW Univ.)

February.2022 - February.2022

VISUAL ODOMETRY, IMAGE PREPROCESSING, PYTHON

• I implemented visual odometry based on ORB features as Python

- Image preprocessing using OpenCV
- Visual Odometry improved when applying Gaussian filter: Result[Link]

3D Objection Detection Projection

OPENPCDET, NUMPY, ROS

- I used PointRCNN pretrained model
- Projection 3D point cloud (matching Camera Frame) using Numpy
- This project is in my Github repository : **3D-Object-Detection_to_2D_Projection [Link]**

Baram(Robotics Academic Group)

March.2022 - July.2022

Console game Individual

C++ May.2021 - August.2021

- I made Console game using C++
 After learning C++, I wanted to start to program for applying object orientation.
 This project is in my Github repository: Console_game-avoid_object [Link]