# Sangbeom Park

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# **EDUCATION**

Korea University

Seoul, South Korea

M.S. in Artificial Intelligence (Advisor: Sungjoon Choi)

Sep. 2021 - Present

GPA: 4.42/4.5

Leave of absence for Work (Mar 2023 - Sep 2023, Mar 2024 - June 2024)

# Dongguk University

Seoul, South Korea

B.S. in Electrical and Electronics Engineering, B.S. in Intelligent Robotics Engineering(Minor) Mar. 2015 – Aug 2021 EE GPA: 4.09/4.5, IR GPA: 4.44/4.5

Leave of absence for Military Service in KATUSA (Nov 2016 - Aug 2018)

## **Publications**

⟨ International ⟩

- [1] **Sangbeom Park**, Taerim Yoon, Joonhyung Lee, Sunghyun Park, and Sungjoon Choi, "Quality-Diversity based Semi-Autonomous Teleoperation using Reinforcement Learning", *Under Review*.
- [2] Joonhyung Lee, **Sangbeom Park**, Yongin Kwon, Jemin Lee, Minwook Ahn, and Sungjoon Choi, "Visual Preference Inference: An Image Sequence-Based Preference Reasoning in Tabletop Object Manipulation", *Under Review*.
- [3] Sunghyun Park, Yoonbyung Chai, Seungyup Ka, Hyeonseong Kim, **Sangbeom Park**, Kevin Gim, Joohyng Kim, and Sungjoon Choi, "Learning Rapid Adaptation of a Legged Robot under Amputation", *Under Review*.
- [4] Joonhyung Lee, **Sangbeom Park**, Jeongeun Park, Kyungjae Lee, and Sungjoon Choi, "SPOTS: Stable Placement of Objects with Reasoning in Semi-Autonomous Teleoperation Systems", 2024 IEEE International Conference on Robotics and Automation (ICRA).
- [5] Jeongeun Park, Seungwon Lim, Joonhyung Lee, **Sangbeom Park**, Minsuk Chang, Yougjae Yu, and Sungjoon Choi, "CLARA: Classifying and Disambiguating User Commands for Reliable Interactive Robotic Agents", *IEEE Robotics and Automation Letters 2023*.
- [6] Sangbeom Park, Yoonbyung Chai, Sunghyun Park, Jeongeun Park, Kyungjae Lee, and Sungjoon Choi, "Semi-Autonomous Teleoperation via Learning Non-Prehensile Manipulation Skills", 2022 IEEE International Conference on Robotics and Automation (ICRA).

## Work Experience

NAVER Cloud

NAVER LABS

Gyeonggi-do, South Korea

Working on Newsbot Service using Hyperclova X

Mar. 2024 - June. 2024 Gyeonggi-do, South Korea

Researching on Robot Manipulation (Mentor: Taeyoon Lee)

Mar. 2023 - Sep. 2023

#### Undergraduate Research Intern, KOREA AI&Robotics Lab

Seoul, South Korea

Researching on reinforcement learning for robotic manipulation skills (Advisor: Sungjoon Choi) Jan. 2021 - Aug. 2021

# Programming Instructor, CMS C3Coding

Seoul, South Korea

Teaching C++ Programming for Korea Olympiad in Informatics (KOI)

May. 2019 - Present

## Awards & Honors

Autonomous Driving Competition, 2nd, Dongguk University, 2021.

Honor student for 2021, Dongguk University, 2021.

Honor student for 2020, Dongguk University, 2020.

Poster Idea Award, KICS, 2020.

Capston Design Value Up, 3rd, Dongguk University, 2019.

Project of the Industrial Revolution, 1st, TAVE, 2019.

# PROJECTS

# Automation Maintenance using Mobile Manipulator

Mar. 2021 –Sep. 2023

- Developed navigation and manipulation skills of mobile manipulator for factory automation system.
- Supported from Samsung Electronics

## Deep Reinforcement Learning for Autonomous Driving

Jan. 2021 – April. 2021

- Proposed sampled-efficient reinforcement learning methods for autonomous driving implemented in Unity.
- Open Lab, AI LAB KOREA Association, Inc

## Self-driving Framework

Dec. 2020 - Feb. 2021

- Developed a self-driving framework using computer vision and reinforcement learning on Xytron.
- 2nd prize, Dongguk University

#### User-centered Home IoT

June. 2019 – Sep. 2019

- Developed Home IoT System for Individual User, It uses the face recognition system as a trigger to activate the IoT, which considers user preferences and controls the system utilizing an app equipped with a menu.
- 3rd prize, Dongguk University

# Sharella (Sharing Economy+Umbrella)

Mar. 2019 - May. 2019

- Designed and implemented a prototype of Autonomous System "Sharella (Sharing Economy+Umbrella)" based on Firebase to integrate with customized app and Raspberry Pi which controls the hardware. Literally, it serves as a platform to share umbrellas from anywhere to anyone
- 1st prize, TAVE

# PATENTS

# Semi-Autonomous Teleoperation via Learning Manipulation

2023

• Republic of Korea. 10-2023-0125345

## INVITED TALK

## Learning X in Physics-based Simulators

Mar 8, 2024

• Cinamon, AI Research

## Shared-Autonomy for Robotics

Feb 14. 2023

• NABER LABS, Robot Dynamics&Control

# EX-CURRICULAR ACITIVITIES

## Deep Learning Seminar

Sep. 2021 - Mar. 2022

- AI-group deep learning seminar
- Attending Korea, Seoul National, Han-Yang, Chung-Ang University PAIR (RILAB, RLLab, Robots with Humans Lab, RAILab) seminar

#### MST (Microcontroller Study Team Club)

Dec. 2018 - Dec. 2019

- In charge of the seminars for C programming language tutorial for club members
- In charge of the seminars for Arduino and Raspberry Pi tutorial for club members

## Languages

Korean (Native), English (Fluent)