

Jiyoon Park

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EDUCATION

Carnegie Mellon University

Pittsburgh, PA

- Master of Science in Robotic Systems Development
- Awarded Kwanjeong Educational Foundation Scholarship | GPA: 4.17/ 4.33

May 2024

Ewha Womans University

Seoul, Korea

- Bachelor of Science in Computer Science and Engineering and Computational Science
- Honors: **Summa Cum Laude** - GPA 4.16/4.3 Rank: 1/46

Mar. 2022

RESEARCH EXPERIENCE

Ewha Computer Graphics Lab

Seoul, Korea

Undergraduate Research Intern

Feb 2021 - Mar 2022

- Developed a large-scale robotic drawing system that draws TSP pen art on large arbitrary surfaces
- Implemented under ROS in C++ and Python using KUKA LBR IIWA 7 R800 as a manipulator and Clearpath Robotics Ridgeback as the mobile platform
- Proposed the system pipeline from taking the digital image to operating the robot to execute the drawing process
- Developed and implemented greedy algorithm for path planning of the holonomic mobile base, Ridgeback
- Won the **Best Undergraduate Paper Award** by The Korean Graphics Society in 2021 [[website](#)]

ACADEMIC PROJECTS

Camera Mobile Manipulator

Ewha Womans University | Mar 2022

- Developed a camera manipulator system using a mobile manipulator for accurate manipulation pose reproduction
- Focused on system engineering and localization; reduced localization error to 1cm by using HTC VIVE Tracker

Autonomous Driving Cart

Ewha Womans University | Jul 2021

- Developed autonomous driving cart system using OpenCV, DeepSORT and ROS for computational offloading
- Focused on TurtleBot manipulation, ROS communication, refining DeepSORT, and algorithm optimization
- Ewha Startup Contest 1st place, Ewha Capstone Project Contest 2nd place. Nominated as Ewha Womans University representative team and won Popularity Award at the national Software Human Resource Festival

Restaurant Review Analysis Website

Ewha Womans University | Aug 2021

- Developed an interactive website that uses big data to recommend users with personalized optimal choices based on past restaurant reviews using PHP, js, css, HTML

Course Information You Need Website

Ewha Womans University | Aug 2021

- Designed and implemented a user interactive interface for a course review website using Chartjs, Bootstrap, js etc as the prime frontend developer

PUBLICATIONS

1. Daeun Song, Eunjung Lim, [Jiyoon Park](#), Minjung Jung, Young J. Kim, "TSP-Bot: Robotic TSP Pen Art using High-DoF Manipulators", under review [🔗](#)
2. Daeun Song, [Jiyoon Park](#), Young J. Kim, "SSK: Robotic Pen-Art System for Large, Non-Planar Canvas", IEEE T-RO, conditionally accepted
3. Eunjung Lim, [Jiyoon Park](#), Daeun Song, Young J. Kim, "TSP Pen Art using a Mobile Collaborative Robot (extended abstract)", Korea Computer Graphics Society Annual Conference (KCGS), Jul 2021 [🔗](#)
4. Jisu Han, [Jiyoon Park](#), Chae-won Kim, Sang-soo Park, Hieonn Kim, "Deep Learning Based Autonomous - Driving Cart Using ROS for Computation Offloading", Korea Information Processing Society Fall Conference (KIPS), Nov 2020

TEACHING EXPERIENCE

Peer Instructor (Tutor)

Ewha Womans University | Mar 2021 - Jul 2021

- Tutored 30+ students for Numerical Methods (Computer Science math elective course)

One-Stop Tutor

Ewha Womans University | Jul 2021- Dec 2021

- Selected to organize an advanced algorithm course for 40+ undergraduates. In charge of assignment code reviews

TECHNICAL SKILLS

Python, Java, C/C++, Matlab, NumPy, SciPy, OpenCV, HTML/CSS/JS, ROS, Gazebo, rviz, Linux, MATLAB, Git