Seungheon Lee

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Seoul, Republic of Korea

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EDUCATION

University of Seoul — Seoul, Republic of Korea
Department of Mechanical Information Engineering — *Mar 2019 – Feb 2025*
Bachelor Student, GPA: 4.15 / 4.5 (Major GPA: 4.35 / 4.5)

EXPERIENCE

Samsung Research — Seoul, Republic of Korea
Software Engineer Intern — *Jul 2024 – Aug 2024*

- Developed monitoring system for LLM API servers: Implemented Kubernetes cluster and monitoring infrastructure using Prometheus and Grafana
- Successfully deployed the system from development to staging environment, preparing for the upcoming service release

Robotics Lab, University of Seoul — Seoul, Republic of Korea
Undergraduate Researcher — *Mar 2022 – May 2024*

- Gained Research Experience and Participated in Various Competitions

RESEARCH INTERESTS

- Robotics: Autonomous Driving, Manipulation
- AI Applications: Reinforcement Learning, Generative AI

AWARDS AND SCHOLARSHIPS

- Winner of Simulation Drone Contest, Korean Robotics Society — *May 2022*
- Best Presentation Award, Engineering Research Internship, University of Seoul Engineering Education Innovation Center — *Feb 2023*
- Grand Prize, 1st Autonomous Robot Race Competition, Autonomous Robot Race Competition Organizing Committee — *Apr 2023*
- 1st place, RoboCup Autonomous Robot Manipulation Challenge, MathWorks, United States — Jul 2023
- Academic Excellence Award, President of the University of Seoul — Nov 2023
- OK Scholarship for College/Graduate Students, OK Scholarship Foundation — Sep 2023 – Present
- Blue Lighthouse KB Dream Wave 2030 Promising Field Scholarship, Korea Scholarship Foundation — *Nov 2023 - Jun 2024*

CONFERENCES

- Seungheon Lee, Euihoon Sagong, Myeonjung Hwang, "Visualization of Singularity Distribution in Robot Manipulator using Monte Carlo Method," ICROS 2023, Samcheok, Korea – Poster — *Jun 2023*

- Seungheon Lee, Taegyeom Lee, Ui Hun Sagong, Jung Hyun Choi, Won Bo Jang, Junyoung Lee, Murim Kim, Myeonjung Hwang, "Detection of Handle Grasping Pose Using a Deep Learning Based Grasping Pose Estimation Algorithm," KRoC 2024, Pyeongchang, Korea – Poster *Feb 2024*
- Minhoo Park, Seungheon Lee, Yonggun Lee, "Techniques for Creating Custom Article Illustrations with Stable Diffusion," KIBME 2024, Jeju, Korea – Oral *Jun 2024*

SKILLS

- Programming Languages - Python, C/C++
- Software/Tools - Linux, ROS, MATLAB, OpenCV, PyTorch
- Hardware/Sensor - LiDAR(2D, 3D), GPS, RGB-D Camera

ACTIVITIES

Military Service

- Sergeant, Republic of Korea Army *Mar 2020 - Oct 2021*

Projects

- Zeus Industrial Robot ZERO Mission Challenge: focusing on tasks such as 6-axis articulated robot operation, robot vision, and point cloud processing, RoboWorld *Aug 2023 - Oct 2023*
- RL-Enhanced-PurePursuit: Enhanced Pure Pursuit path-following algorithm using reinforcement learning with MATLAB's Reinforcement Learning Toolbox *Sep 2023 - Dec 2023*
- BartendAiRtist: Developed an AI-powered Android app for personalized cocktail recommendations and automated preparation using Chat GPT API *Mar 2023 - Dec 2023*
- Creating Custom Article Illustrations with Stable Diffusion: project with KBS AI transformation team *Apr 2024 - Jun 2024*

Links