

# Seungyeon Yoo

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## EDUCATION

### SEOUL NATIONAL UNIVERSITY

Ph.D. Candidate at the Lab for Autonomous Robotics Research in Aerospace Engineering (GPA 4.04/4.3)

- Advisor: H. Jin Kim
- Research Interests: Vision-Based Navigation, Visual Learning, Robotics
- Scholarship: BK Excellent Research Talent Fellowship

Seoul, Korea | Sep. 2021 – Present

### KOREA UNIVERSITY

B.S. in Mechanical Engineering (GPA 4.33/4.5)

- Scholarship: National Scholarship for Science and Engineering (merit-based, 4 years)
- Awards: Grand Prize, Capstone Design Competition (₩2.0M, 2017); Academic Excellence Award (2017)
- Certificates: Future Entrepreneurship Certificate; Next Generation Leader Training Certificate

Seoul, Korea | Mar. 2014 – Feb. 2020

## PROFESSIONAL EXPERIENCES

### SAMSUNG ADVANCED INSTITUTE OF TECHNOLOGY

*Research Intern (Computer Vision Technology Unit at the AI Research Center)*

Suwon, Korea | Jul. 2023 – Sep. 2023

### SAMSUNG ELECTRONICS

*Engineer (Manufacturing Core Technology Team at the Global Technology Center)*

Suwon, Korea | Mar. 2020 – Jul. 2021

### ILSA (DRIVER ASSISTANCE SYSTEM STARTUP TEAM)

*Team Leader*

Seoul, Korea | Jan. 2018 – Jun. 2019

## EXTRACURRICULAR ACTIVITIES

### INTERNATIONAL SPACE EDUCATION BOARD (ISEB)

*Korea Representative Student*

Baku, Azerbaijan | Oct. 2023

### KOREA UNIVERSITY INTERNATIONAL STUDENT ASSISTANT (KUISA)

*Personnel Leader / Group Leader*

Seoul, Korea | Feb. 2017 – Dec. 2017

## PROJECTS

### HUMANOID ROBOT DEVELOPMENT FOR HUMAN-LIKE PERCEPTION, COMMUNICATION, AND LEARNING

Funded by Korea Ministry of Trade, Industry and Energy

Jan. 2025 – Present

### LANGUAGE MODEL-DRIVEN INTERACTION AND SPATIAL LEARNING FOR PERSISTENT AUTONOMOUS ROBOT NAVIGATION

Funded by Samsung Science and Technology Foundation

Jan. 2025 – Present

### AUTONOMOUS AND SWARM SYSTEMS USING VISION-AIDED NAVIGATION IN GNSS-DENIED AND JAMMING ENVIRONMENTS

Funded by Defense Acquisition Program Administration

Jan. 2025 – Present

### LEARNING-BASED ROAD SURFACE CONDITION ESTIMATION FOR VEHICLE SLIP SUPPRESSION

Funded by Hyundai Motor Company

Jan. 2023 – Dec. 2024

### AUTONOMOUS DRIVING-ASSISTIVE ROBOT FOR FOLDABLE WHEELCHAIRS

Funded by Korea Ministry of Science and ICT

Aug. 2021 – Dec. 2022

## ADDITIONAL ACADEMIC BACKGROUND

### KANGWON SCIENCE HIGH SCHOOL

(Government-designated selective program for gifted students in science and engineering)

## OTHER INFORMATION

**Military Service:** Sergeant, Republic of Korea Army, Mar. 2015 – Dec. 2016