

Jiwon You

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Education

Seoul National University, Seoul, Republic of Korea

- B.S. in Mechanical Engineering (Mar. '17 – Feb. '24)
 - Total GPA: 3.96/4.30, **Summa Cum Laude (Rank 18/209)**
 - Mandatory military service leave (Mar. '19 – Feb. '21)

ETH Zurich, Zurich, Switzerland

- Exchange student in Mechanical Engineering (Sept. '22 – Feb. '23)
 - Total GPA: 5.63/6.00

Interests

- Dexterous robotic manipulation
- Control & Path planning & Simulation

Research Experience

Vision for Robotics Lab (PI: Prof. Margarita Chli), ETH Zurich

Exchange student (Sept. '22 – Feb. '23)

- **(Thesis) Adaptive Motion Parametrization for Continuous-Time SLAM**
 - Developed & evaluated learning-based methods for motion parametrization
 - Explored the use of stochastic processes to generate artificial data for learning

Interactive & Networked Robotics Lab (PI: Prof. Dongjun Lee), Seoul National University

Undergraduate intern (Mar. '23 – Dec. '23)

- **Object manipulation in cluttered environment**
 - Implemented & enhanced reactive path planner for manipulator end-effector
 - Conducted performance evaluation with dish-rack scenario
- **Development of physics simulator for manipulation learning**
 - Implemented collision detection algorithms to imitate object deformation
 - Applied GPU parallelization to improve simulation speed using CUDA framework

Metrology & Thin Film Process Lab (PI: Prof. Heui Jae Pakh), Seoul National University

Undergraduate intern (Mar. '23 – Jul. '23)

- **(B.S. Thesis) Applying Deep Learning to Thin Film Thickness Measurement**
 - Devised & evaluated learning-based methods for film thickness measurement

Relevant Coursework

1. Planning and Decision Making for Autonomous Robots
 - Optimized travel itinerary using mixed integer linear programming
2. Robot Mechanics
 - Designed & simulated UR5 manipulator controller in MATLAB
3. Mechanical Systems Modeling and Control
4. Principles of Flight Vehicle Control
5. Machine Learning Fundamentals and Applications
 - Designed & trained a CNN-LSTM model on image dataset

Honors & Awards

- Outstanding Bachelor Thesis Presentation Award, Seoul National University ('23)
- Seoul National University Development Fund Scholarship ('18)
- Merit-based and Additional Scholarships, Seoul National University ('17, '21, '22)

Skills

- **Programming & Software:** Python, C/C++, MATLAB, CAD
- **Libraries & Tools:** PyTorch, Tensorflow, CUDA, Eigen, MuJoCo
- **Languages:** Korean (native), English (TOEFL 117, GRE 167/170/4.5)

Other Experience

- Seoul National University, Republic of Korea
Teaching Assistant in Solid Mechanics and Dynamics (Mar. '21 – Dec. '21)
- Samsung Electronics, Republic of Korea
Student intern, CAD and static analysis of mobile phone (Dec. '21 – Feb. '22)
- Republic of Korea Air Force
Sergeant (Apr. '19 – Dec. '20)
- College Badminton Club, Seoul National University ('17, '18, '22)