Seungho Yeom

Seoul, Korea | duatmdgh3@yonsei.ac.kr | Homepage | Github

Research Interests

I am interested in developing novel robots and learning algorithms for dexterous physical interaction, with an emphasis on biomimetic design and control for delicate, contact-rich environments.

Education

University of California, San Diego | CA, USA *Sep. 2025 – Jun. 2026*
Reciprocal Exchange Student, Jacobs School of Engineering

Yonsei University | Seoul, Republic of Korea *Mar. 2022 – Present*
B.S. in Mechanical Engineering GPA: 4.02 / 4.3
Leave of absence for military service: Feb. 2022 – Mar. 2024
Relevant Coursework (graduate level): Machine Learning and Programming (A+), Human Robotics (A+)

Sogang University | Seoul, Republic of Korea *Mar. 2020 – Feb. 2022*
B.S. in Mechanical Engineering GPA: 4.09 / 4.3

Research Experience

MLCS lab, Yonsei *Aug. 2024 – Present*
Advised by Prof. Jongeun Choi
Undergraduate Research Intern

- Re-ACT (Responsive Temporal Ensemble for Action Chunking with Transformer)
  (Graduate-Level Coursework Project)
  - Developed a responsive temporal ensemble method that adaptively increases the weight of action chunks generated under external forces.
  - Implemented and experimentally validated the algorithm on the Rainbow Robotics RBY1 mobile bimanual manipulator.
- Impedance-Controlled Gait Assistance Robot
  - Developed a gait-assistive robot for children with poliomyelitis.
  - Assisted in hardware design and control strategy validation.

Work Experience

Tissin R&D Team *Feb. 2022 – Mar. 2024*
R&D engineer

- Led the development of the TS2XX snap-acting relay series, from initial design to product validation.
- Improved material and design research by 100% in durability for the TS800 pneumatic pilot valve.
- Automated the label production line by designing and implementing a new system, resulting in a fivefold boost in manufacturing efficiency.
- Prototyped and performance tested the TS760 piezo pilot valve, contributing to the R&D process.

Teaching Experience

Introduction to Machine Learning (IEE1065) *Jun. 2025 – Aug. 2025*
Yonsei International Summer School
Teaching Assistant

- Evaluated students' final projects and offered guidance on theoretical topics and potential paths for future study.

Additional Experience

SpaceY Rocketry Club *Sep. 2024 – Aug. 2025*
Avionics Team Member

- Won Gold Medal at the National Universities' Rocket Association (NURA) Academic Conference.
- Developed a custom avionics system in C++ for rocket flight control and a rocket trajectory simulation using Julia to model and optimize engine design.

Yonsei Global Club *Sep. 2024 – Aug. 2025*
Team Member

- Contributed to the integration of international exchange students by organizing cultural and language exchange events, providing mentorship, and supporting orientation sessions.

Honors & Awards

2025-1 Honors	*Aug. 2025*
Korea-U.S. Advanced STEM Youth Exchange Scholarship	*Jun. 2025*
KC Future Foundation STEM scholarship	*Feb. 2021*
S&T Foundation National Contribution in Tech Scholarship	*Feb. 2021*

Skills & Interests

Programming	Python (Pytorch), C/C++, MATLAB
Design & Fabrication	Inventor, Fusion 360, 3D Printing, Laser Cutting, Adobe Suite
Language	Korean (Native), English (Proficient, TOEFL: 109/120)
Interests	Weightlifting, Cognitive Psychology