

HyunSeo Jung

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(Last updated: 2025.12.07.)

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Youtube: <http://youtube.com/@hsjung02/>

RESEARCH INTERESTS

Robotics, Automation, Control theory, Artificial Intelligence

EDUCATION

Pohang University of Science and Technology (POSTECH) <i>Ph.D. Student in Mechanical Engineering</i>	Pohang, South Korea <i>Feb. 2026 – present</i>
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Pohang University of Science and Technology (POSTECH) <i>Master of Science in Mechanical Engineering</i>	Pohang, South Korea <i>Feb. 2024 – Feb. 2026</i>
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- **Thesis:** On the Stability and Performance of Discrete-time PID Tracking Controllers for Lagrangian Systems
- **Advisor:** Prof. Keehoon Kim
- **Committee:** Prof. Wan Kyun Chung, Prof. Youngjin Choi, and Prof. Keehoon Kim

Pohang University of Science and Technology (POSTECH) <i>Bachelor of Science in Mechanical Engineering and Electrical Engineering; GPA: 4.02/4.30</i>	Pohang, South Korea <i>Feb. 2020 – Feb. 2024</i>
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- **Thesis:** Development of a Dynamic speed bump using emergency locking retractor mechanism
- **Thesis:** Reinforcement learning based Chip placement automation

Busan Science High School <i>High School Diploma</i>	Busan, South Korea <i>Mar. 2018 – Jan. 2020</i>
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PUBLICATIONS

[C1] **H. S. Jung**, J. W. Kim, M. J. Kim, and S. H. Kang, “강화학습 기반 Chip Placement에서의 보상함수 설정 방법”, The 30TH Korean Conference on Semiconductors, 2023

HONORS AND AWARDS

POSTECHian Fellowship (POSTECH) (₩3,000,000 ≈ \$2,000)	2024
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Best Student Award (Dept. of M.E., POSTECH)	2022
◦ Awarded to a <i>POSTECH M.E.</i> student who spent an excellent semester	

Haesuk Cultural Scholarship (Haesuk Scholarship Foundation) (₩8,000,000 ≈ \$6,400)	2022-2023
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Undergraduate Group Research Program (POSTECH)	2021
◦ Topic: Development of a lipreading device	
◦ 3rd prize	

POSTECH Programming Contest	2021
◦ 2nd prize	

POSTECH Presidential Fellowship (POSTECH) (about ₩40,000,000 ≈ \$32,000)	2020-2024
◦ Full ride program for undergraduate course	

Hanseong Fellowship (Hanseong Sonjaehan Scholarship Foundation) (₩10,000,000 ≈ \$8,000)	2019
◦ Awarded to academic excellent students	

RESEARCH EXPERIENCES

Research Intern (MARCH Lab, POSTECH) ◦ Research on balancing control of an unmanned unicycle	Jun. 2023 - Nov. 2023
Research Intern (MARCH Lab, POSTECH) ◦ Research on balancing control of an unmanned bicycle	Jun. 2022 - Aug. 2022
Freshman Research Intern (Dept. of E.E, POSTECH) ◦ Practice PID control using an inverted pendulum and 2-dof helicopter system	Sep. 2020 - Dec. 2020
Freshman Research Intern (Dept. of M.E, POSTECH) ◦ Practice PID control using a segway system	Sep. 2020 - Dec. 2020

TEACHING EXPERIENCES

Student Mentoring Program (Dept. of M.E., POSTECH) ◦ Served as a tutor to teach Systems Control course	2023
Teaching Assistant (K-MOOC) ◦ Developed course materials and assisted course operation for K-MOOC 'Introduction to quantum physics and computing' lecture	2021-2022
Seminar Host (PoApper) ◦ Served as a mentor for frontend seminar at PoApper, the POSTECH Web/App development group	2021

EXTRACURRICULAR ACTIVITIES & MISCELLANEOUS

Chief Financial Officer (Undergraduate Association, POSTECH)	2023
Student President (Dept. of M.E., POSTECH)	2022
President of POSTECH Table Tennis club	2021-2022
Member of POSTECH Cheerleading team	2020-2021

SKILLS

- **Languages:** Korean(native), English(advanced - TOEIC 920, TEPS 454)
- **Hardware:** 3D printer, Lathe, Milling machine, Arduino, Raspberry pi
- **Software:** 🍷(including PyTorch and PyBullet framework), MATLAB, C/C++, CAD(Solidworks & Autodesk Inventor)