Woojin Shin

⚲ GIST, Gwangju, Republic of Korea ✉ swjstar7@gm.gist.ac.kr ☎ +82) 10-9935-2073

Education

Gwangju Institute of Science and Technology (GIST) *Mar. 2021 – Present*

- Undergraduate Student in Department of Mathematical Science (Completed: 7 Semesters)
- Double Major in Electrical Engineering and Computer Science (EECS)
- TGPA: 4.11 *out of* 4.5 / Major GPA: 4.06 *out of* 4.5

Research Experience

Research Intern *Dec. 2022 - Feb. 2023*
Distributed Control and Autonomous Systems Lab (DCASL), GIST *Mar. 2025 - Jun.2025*
Advisor: Hyosung Ahn
- Studying consensus algorithm of Multi-Agent Systems (Dec. 2022 - Feb.2023)
- Global Rigidity of Graphs (Mar.2025 - Jun.2025)

Research Intern *Jun. 2025 - Aug. 2025*
Autonomous Control for Stochastic Systems Lab (ACSS), KAIST
Advisor: Soojean Han
- Modern control theory: Linear systems, LQR, MPC
- ADMM-Based Distributed Model Predictive Control for Collision and Obstacle Avoidance

Skills and Techniques

Mathematical Background: Real Analysis, Basic Topology, Measure and Probability Theory, Graph theory
Programming and Simulation: Python, MATLAB, Simulink
Control and Optimization: PID, LQR, MPC, Convex Optimization, ADMM
Documentation: LaTeX, Obsidian

Scholarships

Academic Excellence Scholarship, GIST *(Awarded for 5 semesters)*
- Spring 2021, Fall 2021, Spring 2022, Spring 2023, Spring 2025

Dean's List, College of Information and Computing, GIST *(Awarded for 2 semesters)*
- Spring 2025, Fall 2025

Projects

GIST-X *Jan. 2022 - Nov. 2022*
- DCASL, GIST
- CubeSat Development contest organized by Korea Aerospace Research Institute.
- Assist in designing the power system and control

ME UP (Mechanical Engineering Undergraduate Program) *May 2022 - Nov. 2022*
- DCASL, GIST
- Attitude Control of space flight object with Quaternion feedback control

Teaching Experience

Teaching Assistant - CT4202 Visual Communication *Mar. 2023 – Jun. 2023*

Teaching Assistant - MM2004 Introduction to Linear Algebra and Applications I *Sep. 2025 – Dec. 2025*

Teaching Assistant - MM3301 Topology I *(Incoming) Mar. 2026 –*

Study Abroad

Exchange Student, University of California, Berkeley (UC Berkeley) *Jun. 2023 - Aug. 2023*

- Summer session, completed the following courses.
- CS70 (Discrete Mathematics and Probability) and STAT155 (Game Theory).

Foreign Languages

IBT TOEFL

- Total: 106 *out of* 120 (Reading: 28 / Listening: 27 / Speaking: 23 / Writing: 28)
- Expiration Date: Dec. 2026

Military Experience

Completed mandatory service as a Sergeant in the Republic of Korea Army *Sep. 2023 - Mar. 2025*

- Service Type: KATUSA (Korean Augmented To the United States Army)