Minhyuk, **Jang**

Senior Student at Seoul National University

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"Life begins at the end of your comfort zone"

Interests

Control Theory Robust Control, Optimal Control, Nonlinear Control and its Applications for Real-World Problems

Education

Seoul National University *Seoul, South Korea*

B.S. in Mechanical Engineering, Interdisciplinary Major in Artificial Intelligence **(GPA: 4.18/4.3)** *Mar. 2019 - PRESENT**

- *Include 18 months of military service

Experience

Control and Optimization Research (CORE) Lab, SNU *Seoul, South Korea*

Undergraduate Researcher | Advisor: Prof. Insoon Yang *Mar. 2023 - PRESENT*

- Conducted research on extending theory of Wasserstein Distributionally Robust Control(WDRC) Problem using Distributionally Robust Kalman Filtering(DRKF) in partially observable linear stochastic systems
- Implemented DRKF into the system and evaluated its performanace improvement compared to the original WDRC and Linear Quadratic Gaussian (LQG) control methods

NEARTHLAB *Seoul, South Korea*

Aerospace Engineering Intern *Jan. 2024 - Feb. 2024*

- Developed and implemented a Position/Velocity Controller utilizing Disturbance Observer (DOB) for offboard flight control missions of quadrotor

Senior KATUSA (Korean Augmentation to the United States Army) *Pyeongtaek, South Korea*

Sergeant, 8th Army, Camp Humphreys *Sep. 2021 - Mar. 2023*

- Led and managed a 10-solider squad, ensuring their training, well-being, and mission preparedness
- Operated within a U.S. Army office, collaborating extensively with American colleagues on a daily basis
- Applied language proficiency to deliver crucial translation and interpretation support during Combined Exercises, promoting cross-cultural comprehension and enhancing mission achievements

Skills

Programming	C/C++, Python, MATLAB, JAVA
Libraries/Softwares	PX4-Autopilot, ROS2, SolidWorks, MuJoCo, PyTorch, LaTeX
Languages	Korean, English (TOEFL 106 : R:30 / L:30 / S:23 / W:23)

Honors & Awards

2021∼ **Kwanjeong Scholarship**, Recipient of a full tuition scholarship along with a stipend for two years *Seoul, South Korea*

2022 **ARCOM(Army Commendation Medal)**, United States Department of the Army *Camp Humphreys*

Core Courses

Control	Mechanical System Modeling and Control(A0), Nonlinear System Theory(Graduate, A+), Advanced Control Techniques(A+)
CS	Data Structures(A+), Algorithms(A+), Introduction to Deep Learning(A-)
Robotics	Mechatronics(A+), Mechanical Product Design(A+), Introduction to Robotics(A0)
Others	Fundamentals of Control Engineering(Online), Convex Optimization(Online)

Extracurricular Activity

Bulnabi *Seoul, South Korea*

Drone Club, SNU *Sep. 2023 - PRESENT*

- Gain knowledge in quadrotor control, especially targeted on preparing Korea Robot Aircraft Competition
- Developed and implemented control algorithms for the novel VTOL design