

Jun-Woo Kim

M.S. student
Hanyang University
z000330@hanyang.ac.kr

EDUCATION

Mar. 2026 ~ Present	Hanyang University Major: M.S. in Industrial & Management Engineering Next Simulation Lab Advisor: Kyung-Min Seo GPA: 4.5/ 4.5	Seoul, Republic of Korea
Mar. 2019 ~ Feb. 2026	Hanyang University ERICA Major: B.S. in Industrial & Management Engineering Cumulative GPA: 4.28/4.50 Major GPA: 4.44/4.50	Ansan, Republic of Korea

RESEARCH INTEREST

- Simulation-based Optimization
- Digital Twin
- AI-based Simulation
- Smart Manufacturing

PUBLICATIONS

1. **Jun-Woo KIM**, Sang-Gyu CHO, Kwan-Yoeng LEE, Hing-In WON, Kyung-Min SEO, "DEVS-Based Automated Inline Rework Loop Design and Simulation for Improving Rework Operations in a Catheter Manufacturing Process", Journal of the Korea Society for Simulation, Vol. 35, No. 2., (2026)
2. Min-Ho CHOI, **Jun-Woo KIM**, Seon-Woo LEE, Kyung-Min SEO, "A Simulation Framework for DRT Operations with AI Persona-Based Virtual Demand and Real-Time HILS Integration", Journal of the Korea Society for Simulation, Vol. 35, No. 2., (2026)

CONFERENCES

1. Seong-Hyeon JOO, **Jun-Woo KIM**, and Jae-Woo JEON, "UAV Scheduling and a Staged CTDE Framework for Cooperative UAV-UGV Engagement in Mountainous Terrain", 2026 Annual Conference of the Korean Institute of Military Science and Technology, Jeju, Korea (Jun. 2026) -Oral
2. Je-Guk HONG, **Jun-Woo KIM**, "An Extensible Human-Robot Collaboration Classification Framework from a Manufacturing Systems Perspective", 2026 Spring Joint Conference of the Korea Society for Simulation, Gyeongju, Korea (Jun. 2026) -Oral
3. Yun-Ho LEE, Jae-Woo JEON, Min-Ho CHOI, **Jun-Woo KIM**, Ji-Hyun WOO, Hoon KIM, and Kyung-Min SEO, "A Collaborative Intelligence Framework for Heterogeneous Unmanned Agents in Manufacturing and Logistics and an Isaac Sim-Based Conceptual Simulation", 2026 Spring Joint Conference of the Korea Society for Simulation, Gyeongju, Korea (Jun. 2026) -Oral
4. Sang-Gyu CHO and **Jun-Woo KIM**, "A Comparison of Standalone and Integrated Simulator Implementation Approaches for Cycle Time Analysis of a Catheter Medical Device Production Line", 2026 Winter Conference of the Society for Computational Design and Engineering, Gangwon-do, Korea (Feb. 2026) -Oral
5. **Jun-Woo KIM**, "Design and Simulation of a DEVS-Based Inline Rework Loop for Rework Automation in a Catheter Manufacturing Line", 2025 Fall Conference of the Korea Society for Simulation, Seoul, Korea (Dec. 2025) -Oral
6. Min-Ho CHOI, **Jun-Woo KIM**, Seon-Woo LEE, Kyung-Min SEO, "A Demand-Responsive Transit Operations Framework Integrating AI Persona-Based Virtual Demand with Human-in-the-Loop Simulation", 2025 Fall Conference of the Korea Society for Simulation, Seoul, Korea (Dec. 2025) -Oral

PATENTS

1. Kyung-Min SEO, **Jun-Woo KIM**, Min-Ho CHOI, Seon-Woo LEE, "Demand-Response Transport Simulation System", KR-Application No. 10-2025-0199264

EXPERIENCES

- Teaching Assistant in Programming Languages at Hanyang University, Korea (Sep. 2025 ~ Dec. 2025)
- Undergraduate Research Intern at Next Simulation Lab (NSL), Hanyang University, Korea (Jul. 2024 ~ Sep. 2025)
- Undergraduate Research Intern at MOM & DAD Lab, Hanyang University, Korea (May 2023 ~ Jul. 2023)

AWARDS AND HONORS

- Full Tuition Scholarship for Academic Excellence, Hanyang University, Korea (Spring 2026)
- 1st Place, Capstone Design Competition, Department of Industrial & Management Engineering, Hanyang University ERICA, Korea (June 2025)
- Honorable Mention, Paper Presentation Competition, Korea Society for Simulation, Korea (December 2025)
- 3rd Place, The 22nd Korea Undergraduate Computer Simulation Competition, Korea Society for Simulation, Korea (November 2024)
- Ranked 1st in the Department of Industrial & Management Engineering for three semesters and 2nd for one semester, Hanyang University ERICA (2022–2024)
- Hanyang ERICA Academic Excellence Scholarship, Hanyang University ERICA (2025)
- Hanyang Brain Scholarship for Academic Excellence, Hanyang University ERICA (2022, 2024)
- Special Academic Excellence Scholarship, Hanyang University ERICA (2023, 2024)

PROJECTS

- Development of Advanced Virtual Commissioning Technology and Validation Simulation Modules, LG Electronics, Korea (Mar. 2026 ~ Present).
- Development of a Software-Defined Factory (SDF) Platform for Real-Time Response in Manufacturing, Production, and Logistics Operations, Korea (Jan. 2026 ~ Mar. 2026).
- Development of a Production Line Cycle Time Analysis and Production Monitoring System, Korea Institute of Industrial Technology (KITECH), Korea (Sep. 2025 ~ Dec. 2025).

SKILLS AND CERTIFICATES

- Python
- Nvidia Omniverse Isaac Sim / USD Composer
- ROS2