

차준하 (Junha Cha)

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Department of AI

Gachon University

Education

University Gachon University, Department of AI & Software
Expected graduation: February 2027

GPA 4.35/4.5 | Major : 4.37/4.5

Military 육군 병장 만기전역, ROKA (Jan 2022 - Jul 2023)

Activity

Research Korea University

Assistant Robot Intelligence Lab (RILAB)

26.01~present - Research focused on Intelligent Manipulation for achieving Human-Level Intelligence in robotics.

Intern ROBOTIS AI Software Team Intern

25.06~25.12 - Contributed to the design and coding of AI Worker and OMX modules as a member of the AI Software Team.

Research Gachon University

Assistant Intelligent Robotics and Autonomous System Control Lab (iRASC)

23.12~25.06 - Research focused on Intelligent Manipulation for achieving Human-Level Intelligence in robotics.

Domestic Conference

- 2025** **대한전자공학회, IEIE(Robot Intelligence) :**
- Junha Cha, et al., "BB-VLA: A Brain-Body Framework Mimicking Human Thought for Intelligent Manipulator Palletizing."

Project

- 2025** **VR Teleoperation of Humanoid Robots with PAPRLE**
- Developed a demo set for the AI Worker Humanoid by tuning and implementing UIUC KIMLAB's open-source PAPRLE framework.
- 2025** **Main Contributor for ROBOTIS 'OMX' Product Launch**
- Led and contributed to the entire product launch cycle of 'OMX' (a ROBOTIS Physical AI product), including market research, hardware, software, CS, manual preparation, demo set creation, and release management.
- 2024** **Team Project: Low Scale Smart-Factory System**
- Developed a smart-factory system, where a robotic arm transports items based on ArUco Marker recognition, ordered by customers via a web-based interface.
- 2024** **국립재활원 과제 : Feedback System for Personalized Rehabilitation Robots**
- Reconstructed the existing patient experiment data acquisition system using ROS, and developed a ROS driver for the IMU sensor.
- 2025** **Team Project: Remotix**
- Developed 'Remotix,' a web-based customer support system for autonomous driving, integrating a remote teleoperation interface using a Turtlebot3 platform.
- 2021** **Team Project: Autonomous Car and Smart City**
- Implemented an autonomous vehicle that detects proximity and navigates using an Arduino ultrasonic sensor kit, and designed the associated smart city infrastructure.

Awards

- 2025** **Extreme Robotics Challenge, Organized by: Korea Institute of Robotics and Convergence(KIRO) – Second Place**
- Role : System Integration(mission controller) and Manipulation
 - Topic : Button pressing, rescue supply collection, and door opening missions in a simulated harsh disaster environment
- 2025** **Defense Robotics Competition, Organized by: Korea Institute of Robotics and Convergence(KIRO) – Honorary Mention**
- Role : Leader-Follower System Construction and Manipulation
 - Topic : Collected supply boxes discovered during UGV navigation with a robotic arm, demonstrating leader-follower coordination.
- 2024** **DroneBot Challenge, Organized by: Ministry of National Defense(ROK) - First Place**
- Role : PyMavlink value WebSocket Communication, System Dummy Data Development, and Data Curation
 - Topic : Proposed an AI-Vision-based runway Foreign Object Debris(FOD) detection platform for emergency combat aircraft deployment
- 2024** **Defense Robotics Competition, Organized by: Korea Institute of Robotics and Convergence(KIRO) – Robotics Industry Award**
- Role : Developed enemy recognition system and track segmentation using Jetson Orin and YOLOv8
 - Topic : Developed a multi-functional autonomous driving system with an attached robotic arm for military operations
- 2021** **창업해 춘, Organized by: Gachon University – First Place**
- Role : Market Research, MD, and Frontend Development using Flutter
 - Topic : Developed the university student community application, 'Univerlet' during the 6-months challenge

Research Interest

- Robot manipulation
- Human-Robot Interaction
- Embodied AI

Skill

- ROS
- Programming Skill (C, Python)
- Docker
- Git
- Robotics