

Minjun Chang

Department of Mechanical Engineering, Yonsei University, Republic of Korea

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Education

Yonsei University, Seoul, Republic of Korea
- B.S., Mechanical Engineering (GPA 3.34/4.3)

Mar 2019 – Feb 2025 (Expected)

Research Interest

Robotics, Motion Planning, Locomotion, Marine, Autonomous Driving, RL, connectivity

Work Experiences

GOLE Robotics (Robotics Engineer, Path Planning & SLAM)

Apr 2024 – Jun 2024

- Global(A*) and Local(sMPC) Path Planning algorithm implementation on ROS2 Humble environment and real-world robot(WeRo)
- Actuator controller package python-binding

DRIMAES (Embedded Software Engineer, Research Engineer)

Oct 2022 – Mar 2024

- Linux, ARM MCU SW&FW programming, Communication(Serial, MQTT, REST, CAN)
- Container management, Integration with robotic system(HD Hyundai Robotics)

* for fulfillment of military service

ToysMyth (Embedded Software Engineer, Research Engineer)

Feb 2022 – Oct 2022

- Embedded Software for Mediatek, ESP chipsets, OpenWRT OS kernel

* for fulfillment of military service

Alsemy (AI Lab Intern, Intern)

Jun 2021 – Oct 2021

- Data Smoothness Verification metric development

* Yonsei Summer Startup internship program

Research Experiences

Dynamic Robot System Laboratory, Seoul National University

Jul 2024 – Present

Undergraduate Intern. Supervisor: Prof. Jaeheung Park

Reinforcement Learning based bipedal locomotion

Mechanobiology and Soft Materials Laboratory, Yonsei University

Jul 2020 – Jun 2021

Undergraduate Intern. Supervisor: Prof. Hyungseok Lee

Handheld Standing Surface Acoustic Wave(SSAW) Cell Alignment Device

Bridged glass hold design for SSAW cell alignment and simultaneous UV reactive angiogenesis proposal

Biomedical and Energy System Laboratory, Yonsei University

Dec 2019 – Feb 2020

Undergraduate Intern. Supervisor: Prof. Wonhyung Ryu

Cardiovascular micro stent structure design.

Publications and Conferences

First Author

1. Hyeongwoo Nam*, Seoyeon Choi*, **Minjun Chang***, Joonho Yang*, Jaehyeon Lim, Jongeun Choi, "State prediction based control input delay compensation for autonomous driving systems", *The 18th Korea Robotics Society Annual Conference (KRoC 2023, Feb. 15-18, 2023)* *equal contribution
 - Oral presentation in a special session, "Autonomous Driving Robot Racing Technics"

Selected Projects

Cartrasche: Autonomous Human Following Manufacture Assistant <ul style="list-style-type: none">• https://github.com/Cartrasche-CreativeProductDesign	<i>Mar 2024 –Jun 2024</i>
Leafeon Cluster: Indoor Atmospheric Environment Observer <ul style="list-style-type: none">• https://github.com/wkdalswns0427/LeafeonIOTProject	<i>Feb 2023 –Sep 2023</i>
FennecBot: Industrial Anomaly Detection Mobile Robot <ul style="list-style-type: none">• https://universe.roboflow.com/fennecbot-yonsei/fennecbot-yonsei	<i>Mar 2023 – Aug 2023</i>
Eye Tuner: A Personalized Digital Contents Reading Assistant <ul style="list-style-type: none">• https://github.com/Eye-Tuner/Eye-Tuner	<i>Mar 2022 – Dec 2022</i>
SAJOGI: Boston Dynamics Spot Micro project <ul style="list-style-type: none">• https://github.com/wkdalswns0427/SpotMicro_SAJOGI	<i>May 2022 – Nov 2022</i>

Extracurricular Activities and Leadership

BitCrab, Embedded SW group, Yonsei University <ul style="list-style-type: none">• Digital Sessions (2nd)	<i>Mar 2024 – Present</i>
YAI, Artificial Intelligence Club, Yonsei University <ul style="list-style-type: none">• Research Member(9th)	<i>Mar 2022 – Present</i>
Roboin, Robotics Club, Yonsei University <ul style="list-style-type: none">• President, Vice President (2021,2022)	<i>May 2020 – Present</i>

Honors and Awards

1st place, 2022 Autonomous Driving Robot Racing Contest	<i>Nov 2022</i>
Selection, Hanium Contest	<i>Nov 2021</i>
2nd place, Medical Hack 2021	<i>Oct 2021</i>
Impact Solution Award, Yonsei IHEI Workstation (Team: Vision Catcher, Leader)	<i>Jul 2021</i>
2nd place, KU Medical Hackathon	<i>Nov 2020</i>
6th place, EDISON CAD Competition	<i>Aug 2020</i>
2nd place, Yonsei IHEI Workstation (Team: ACUOUS, Member)	<i>Jul 2020</i>
3rd place, Yonsei/Nexon Creative Platform	<i>Dec 2019</i>

Patent

Automatic-Continuous Urine Output&Urinanalysis (KR10-2020-0176792, under prosecution)	<i>Nov 2023</i>
Autonomous Human Following Manufacture Assistant Robot (Korea, in preparation)	<i>Aug 2024</i>

Software Copyrights

Eye Tuner: Media Literacy Program based on Pupil Tracking by Computer Vision <i>Korea Copyright Commission(C-2021-050308)</i>	Nov 2021
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Licenses

Engineer Information Processing, HRDK	Sep 2023
Pilot of an Ultra-Light Vehicle (Drone), Korea Transportation Safety Authority	Nov 2021
Advanced Diver, PADI	May 2016
Underwater Diver, PADI	Mar 2015

Skills Summary

Programming Languages: Python, C/C++, MATLAB

Frameworks/Tools: ROS(Noetic, Humble), Docker, PyTorch, FastAPI, MySQL, COMSOL, Solidworks

Hardware: Jetson Xavier, Jetson Nano, RaspberryPi, Arduino, ESP32, STM32, Bolt10, ScoutMini, WeGoERP42

Languages: Korean (Native), English (Fluent, iBT TOEFL 103 / exp Oct 2025, *personal best 111*)