

Minjun Chang

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Education

Yonsei University, Seoul, Republic of Korea

Mar 2019 – Feb 2025 (Expected)

- **B.S., Mechanical Engineering**

- GPA: 3.21/4.3
- Senior Thesis : Not Yet

Research Interest

Robotics, Smart Factory, Autonomous Driving

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"

Research Experiences

Dynamic Robot System Laboratory, Seoul National University

Jul 2024 – Presnet

Undergraduate Intern. Supervisor: Prof. Jaeheung Park

Reinforcement Learning based bipedal locomotion

Soft Computing Laboratory, Yonsei University *Participating Researcher.*

Mar 2023 – Aug 2023

Supervisor: Prof. Sungbae Cho

Probabilistic Diffusion-based Signal Augmentation for CNN-Transformer

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.

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
- Prediction based LiDAR Localization model development
- Robot 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

Project Experiences

Cartrasche: Autonomous Human Following Manufacture Assistant

Mar 2024 –Jun 2024

- <https://github.com/Cartrasche-CreativeProductDesign>

Leafeon Cluster: Indoor Atmospheric Environment Observer

Feb 2023 –Sep 2023

- <https://github.com/wkdalswns0427/LeafeonIOTProject>

FennecBot: Industrial Anomaly Detection Mobile Robot

Mar 2023 – Aug 2023

- <https://universe.roboflow.com/fennecbot-yonsei/fennecbot-yonsei>

Eye Tuner: A Personalized Digital Contents Reading Assistant

Mar 2022 – Dec 2022

- <https://github.com/Eye-Tuner/Eye-Tuner>

SAJOGI: Boston Dynamics Spot Micro project

May 2022 – Nov 2022

- https://github.com/wkdalswns0427/SpotMicro_SAJOGI

MRI Spine Inage Segmentation with Unet:

Oct 2021 – Dec 2021

- <https://github.com/wkdalswns0427/Spine-Segmentation-with-Pytorch-Modified-UNet>

Compensation Box(funded by CJ EnM)

Dec 2020 – Jan 2021

- <https://www.youtube.com/watch?v=bn3E7PXLlBw>

Extracurricular Activities and Leadership

BitCrab, Embedded SW group, Yonsei University

Mar 2022 – Present

- Digital Sessions (2nd)

YAI, Artificial Intelligence Club, Yonsei University

Mar 2022 – Present

- Research Member(9th)

Roboin, Robotics Club, Yonsei University

May 2020 – Present

- President, Vice President (2021,2022)

Honors and Awards

1st place, 2022 Autonomous Driving Robot Racing Contest

Nov 2022

Selection, Hanium Contest

Nov 2021

2nd place, Medical Hack 2021

Oct 2021

Impact Solution Award, Yonsei IHEI Workstation (Team: Vision Catcher, Leader)

Jul 2021

2nd place, KU Medical Hackathon

Nov 2020

6th place, EDISON CAD Competition

Aug 2020

2nd place, Yonsei IHEI Workstation (Team: ACUOUS, Member)

Jul 2020

Patent

Patent application number: KR 10-2020-0176792 (under patent prosecution)	Nov 2023
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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, Korea Transportation Safety Authority	Nov 2021
Advanced Diver, PADI	May 2016
Underwater Diver, PADI	Mar 2015

Skills Summary

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

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

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

ETC: Linux, Robotics, MCU(ATMega, ESP32, STM32), Embedded Software, Communication, CAD