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, Marine

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

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(WeRo)
- 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

Selected Projects

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

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*

3rd place, Yonsei/Nexon Creative Platform   *Dec 2019*

Patent

Patent application number: KR 10-2020-0176792 (under patent prosecution)   Nov 2023

Software Copyrights

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

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

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