Chemin Ahn

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Birth: 1998.12.22
Portfolio: https://chemx3937.github.io/

Education

- Bachelor of Science in Mechanical Engineering
  Chungang University, Seoul, South Korea
  - Major in Mechanical Engineering
  - 3.84 / 4.50 GPA (CUM LAUDE)
- Master Course of Science in Mechanical Engineering
  Sungkyunkwan University – Robotics Innovatory Lab (Prof. HyouckRyeol Choi)

Research Interest

- Robotics
- Imitation Learning
- Reinforcement Learning
- Computer Vision

Projects

Master Course

- **Teleoperation:**
  - VR Tracker (Safety Limit)
    (https://youtu.be/ToG8sNmdli0?si=a3Xqx6uPEkkllsuQ)
  - Ultimate VR Tracker (Visual SLAM based VR Tracker)
    (https://youtu.be/yQAdfKhJR1M?si=dOepBiyha9SJi26N)
  - Leader Arm (Teleoperation + Gravity Compensation + Force Feedback)
    (https://youtu.be/nlc4Vweq_zc?si=jEefWM4CqLHbqsmy)
  - Dual Arm Leader arm (Teleoperation + Gravity compensation)
    @ IsaacSim & Real
    (https://www.youtube.com/watch?v=20hL_duRynY)

- **Imitation Learning**
  - One Arm: Push toolbox cabinet
    (https://youtu.be/VPG-_bH2SSY?si=8rqA-iMXFOOb57a3)
  - Dual Arm: Move box
    (https://youtu.be/WTx4ySlACAU?si=3ql5pj5ftQYm6d3j)
  - Dual Arm + Hand Imitation Learning
  - Multimodal(Vision + Force) Imitation Learning

Intern & Others

- Visual Servoing Package during Doosan Robotics Robot Control Team Intern (https://youtu.be/9UFAdaa_PR8?si=LtkzL9kk2eVBcLp8)
- Project: assisting pharmaceutical preparation and autonomous delivery using cobot and AMR (https://youtu.be/-mTXpCWZacI?si=YXC8AwRQ8FV_uN9S)

Bachelor's degree

- Finding the optimal sensor for AMR and analyzing driving characteristics by algorithm combinations (https://youtu.be/whuUySDWIwA?si=vPVX8IQul7cd9p3q)
- Design light weight passive wearable suit for logistic workers
- Design light weight battle robot
- Maze escape using OD based autonomous drone

Additional Experience

- Doosan Robotics Robot Control Team intern: 2024.07.01~10.04
- AI-Robotics Academy(KG-Kairos): 2023.12.19~24.06.17
- Undergraduate research student: 2022.12.22~2023.02.28
  - Passive Wearable Suit for logistics worker

Awards

- Capstone Design Contest – 2nd prize (2024.06)
- AI-Robotics Academy KG-Kairos (KG ICT) – 2nd prize (2024.06)
- Cum Laude – Chungang University(2025.02)

Tool Skills

- Language & Framework: Python, Matlab, ROS 1, 2
- Simulation Tools: Isaac Sim, Isaac Lab, Gazebo, Ignition Gazebo
- Manipulator: Doosan Robotics, Rainbow Robotics
- Other: Git, SolidWorks

Language Skills

- English: fluent (reading, listening); intermediate (speaking, writing)
  - TOEIC Speaking: 140(IH)

Additional Link

- Portfolio: https://chemx3937.github.io/
- Gihub: https://github.com/Chemx3937
- Youtube: https://www.youtube.com/@%EC%B3%84-r3i
- Linkedin:https://www.linkedin.com/in/%EC%B2%B4%EB%AF%BC-%EC%95%88-6ab239372/

Related Courses

- Intelligent Robotics
- Robot Reinforcement Learning
- Dynamics
- System Dynamics
- Control Systems Engineering
- Mechatronics
- Robotics
- Numerical Methods
- Design and Analysis of Experiments
- System Control Experiments
- Visual Programming