HOKYUN IM

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EDUCATION

Yonsei University Starting from Mar 2025
MS/PhD in Artificial Intelligence *Seoul, South Korea*

Yonsei University 2019 - 2024
B.S. in Electrical & Electronic Engineering *Seoul, South Korea*
GPA: 3.95 / 4.30 (Cumulative), 3.97 / 4.30 (Major)

RESEARCH INTERESTS

My current research interest is in developing generalizable robot policies by (1) utilizing internet-scale knowledge, (2) learning a broad range of behaviors and skill representations, and (3) improving them using reinforcement learning (RL). Specifically, my interests include:

- Vision-Language-Action models
- Behavioral cloning (BC) using generative models
- Unsupervised skill extraction
- Offline & Online fine-tuning of BC policies

AWARDS

- **1st Place**, 2024 AI Drone Challenge Apr 2024 - May 2024
  Awarded by Governor of Jeju Province.
  Task: Indoor drone navigation by avoiding obstacles, capturing photos of designated objects, and reaching the destination.
- **2nd Place**, 2023 Korea Robot-Aircraft Competition Nov 2022 - Sep 2023
  Awarded by Korean Ministry of Trade, Industry and Energy
  Task: Fully autonomous outdoor drone navigation using GPS to travel long distances, avoid obstacles, reach the destination to deliver items, and return safely.

EXPERIENCE

Research Intern
Yonsei University (Advisor: Prof. Youngwoon Lee) Jul 2024 - Present

- Researched and developed a generalist policy for bimanual manipulation by integrating two generalist single-arm policies and enabling communication between them through *joint self-attention.*
- Developed a dexterous bimanual robot simulation to test both specialist and generalist bimanual policies.

Research Intern
Yonsei University (Advisor: Prof. Jongeun Choi) Apr 2024 - Jun 2024

- Researched and developed a Behavior Transformer that autoregressively generates coarse-to-fine tokens for action generation, inspired by VAR.
- Set up robot manipulation environments from scratch and applied them to 3D Diffusion Policy and SE(3)-Equivariant model experiments.

Research Intern
KAIST (Advisor: Prof. Joseph J.Lim) Jan 2024 - Mar 2024

- Researched and analyzed reasoning gaps in the robotics decision-making process and proposed benchmarks for subgoal prediction in goal-conditioned behavioral cloning.