Isaac Han

✉ Lssac7778@gm.gist.ac.kr 🏠 isaac7778.github.io ⛎ Github ◆ Google Scholar

Research Interests

I'm interested in building an intelligent agent that can continuously learn and adapt to changing environments. My current and future research focus on reinforcement learning, continual learning, and streaming learning.

Previously, I explored wide range of topics such as 3D pose estimation from wearable sensors, StarCraft AI, VR haptic devices, and off-road autonomous driving.

Education

Gwangju Institute of Science and Technology *2020 - present*
M.S/Ph.D student in AI (GPA: 4.33/4.5).

- Advisor: Kyung-Joong Kim.

Bachelor's Degree Examination for Self-Education *2019*
B.S in Computer Science (GPA: 3.7/4.3).
- Nationally accredited B.S. awarded by NILE (Ministry of Education, Korea).

Publications

Conferences and Journals

FIRE: Frobenius-Isometry Reinitialization for Balancing the Stability–Plasticity Tradeoff *ICLR'26*

- **Isaac Han**, Sangyeon Park, Seungwon Oh, Donghu Kim, Hojoon Lee, Kyung-Joong Kim
- paper

Activation by Interval-wise Dropout: A Simple Way to Prevent Neural Networks from Plasticity Loss *ICML'25*

- Sangyeon Park, **Isaac Han**, Seungwon Oh, Kyung-Joong Kim
- paper

Deep ensemble learning of tactics to control the main force in a real-time strategy game *Multimedia Tools and Applications (2024)*

- **Isaac Han**, Kyung-Joong Kim
- paper

Monte Carlo and Temporal Difference Methods in Reinforcement Learning [AI-eXplained] *IEEE Computational Intelligence Magazine (2023)*

- **Isaac Han**, Seungwon Oh, Hoyoun Jung, Insik Chung, Kyung-Joong Kim
- paper

Seamless-walk: natural and comfortable virtual reality locomotion method with a high-resolution tactile sensor *Virtual Reality (2023)*

- Yunho Choi, Dong-Hyeok Park, Sungha Lee, **Isaac Han**, Ecehan Akan, Hyeon-Chang Jeon, Yiyue Luo, SeungJun Kim, Wojciech Matusik, Daniela Rus, Kyung-Joong Kim
- paper

A New Open-Source Off-Road Environment for Benchmark Generalization of Autonomous Driving
IEEE Access (2021)

- **Isaac Han**, Dong-Hyeok Park, Kyung-Joong Kim
- paper / code (60+ ★)

Preprints and Workshops

Shared Representation for 3D Pose Estimation, Action Classification, and Progress Prediction from Tactile Signals
Under review

- **Isaac Han**, Seoyoung Lee, Sangyeon Park, Ecehan Akan, Yiyue Luo, Joseph DelPreto, Kyung-Joong Kim
- paper / video

Recovering Plasticity of Neural Networks via Soft Weight Rescaling
arXiv

- Seungwon Oh, Sangyeon Park, **Isaac Han**, Kyung-Joong Kim
- paper

Smart Insole: Predicting 3D human pose from foot pressure
2nd NeurIPS Workshop on Touch Processing

- **Isaac Han**, Seoyoung Lee, Sangyeon Park, Ecehan Akan, Yiyue Luo, Kyung-Joong Kim
- paper

Academic Service

Reviewer	The ACM conference on Human Factors in Computing Systems (CHI)	2026
Reviewer	IEEE International Conference on Robotics & Automation (ICRA)	2026
Reviewer	IEEE Conference on Games (CoG)	2025
Reviewer	IEEE Access	2023

Technical Skills

Proficient: Python, PyTorch, Tensorflow, Jax

Experienced: Docker, Github