

HEEJUN KIM

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EDUCATION

Gwangju Institute of Science and Technology (GIST)

B.S Major: Electrical Engineering and Computer Science, GPA 4.18/4.50

February 2020 - present

Minor: AI, Mathematics

Location: Gwangju, South Korea

Senior year of college

University of California, Berkeley (UC Berkeley)

June 2024 - August 2024

Summer Session, GPA 4.0/4.0

Coursework: Introduction to Artificial Intelligence, Principles & Techniques of Data Science

RESEARCH EXPERIMENTS

Data Science Lab

Feb 2025 - present, January 2024 - June 2024

Gwangju, South Korea

Research Assistant

- Supervised by [Prof. Sundong Kim](#)
- Developed an architecture that applies generative models to reinforcement learning, combining existing problem-solving approaches to devise new methodologies for solving the Abstract Reasoning Corpus (ARC).
- Researched test-time adaptation with reinforcement learning for self-improving reasoning capabilities of large language model

Forschungszentrum Jülich

September 2024 - February 2025

Jülich, Germany

Korea-Germany Junior Research Fellowship Program 2024

- Host Institute: INM-7 directed by [Prof. Simon B. Eickhoff](#) and contributed to Mathematical Neuroscience Group led by [Dr. Oleksandr Popovych](#).
- Researched about MRI processing on disease classification and prediction by machine learning
- Developed a preprocessing pipeline to generate highly refined multi-modal MRI human connectome data from large-scale Parkinson's patient data (PPMI) using High-Performance Computing (HPC) and Hyper-Threading technology. (Project Supervisor: [Dr. KyeSam Jung](#))
- Fund: 12,000,000KRW (8,197EUR) by National Research Foundation of Korea (NRF)(No. RS-2023-00254343).

PUBLICATIONS

Diffusion-Based Offline RL for Improved Decision-Making in Augmented ARC Task

Yunho Kim, Jaehyun Park, Heejun Kim, Sejin Kim, Byung-Jun Lee, Sundong Kim

arXiv:2410.11324

PROJECTS

Skill-based Reinforcement Learning with UCB Skill Selection

May 2025 - June 2025

- Reproduced BeCL framework for unsupervised skill discovery in reinforcement learning environments
- Developed Multi-Armed Bandit approach with UCB algorithm to improve downstream task adaptation efficiency. [\[Report\]](#) [\[Poster\]](#)

Jeju Special Product Price Prediction AI Competition

November 2023 - December 2023

- Predicted price for Locally Produced Goods in Jeju using machine learning

Hyundai AI Challenge

September 2023 - October 2023

- Processed large-scale port logistics datasets (cleaning, feature extraction, temporal aggregation).
- Built tree-based boosting models to predict ship waiting times.
- Ranked Top 25/330 teams among 1,300+ participants.

LEADERSHIPS

Teaching Assistant

Fall 2025

- Machine Learning & Deep Learning (AI5213/EC4213): led TA sessions, held office hours, and managed assignments/exams. [\[Homepage\]](#)

Korea Army Instructor

February 2021 - August 2022

- Served as an Army instructor in the 50th Division in Daegu, South Korea
- Conducted basic training for approximately 2000 military personnel

EXTRA ACTIVITIES

Google Developer Student Club

September 2023 - February 2024

- Participated in an AI study focused on machine learning and deep learning
- Studied models in ML/DL and analysis of top team models in Kaggle AI competitions
- Established study directions and organized study materials as a team leader

Financial Investment Conference

March 2023 - March 2024

- Conducted a study on economics
- Analyzed and presented economic markets on a weekly basis

GIST Club Federation

February 2020 - December 2020

- Managed clubs in Gwangju Institute of Science and Technology

SKILLS

Programming Languages

Python, C/C++

Python Packages & Framework

PyTorch, VeRL, Scikit-learn, Pandas, Numpy, Matplotlib, Ray

Operating System

Linux, Windows, MacOS

Others

Docker, Wandb, SLURM, HTCondor, SQLite

HONORS

Government Scholarship, Gwangju Institute of Science and Technology

2020 - present

Government Scholarship, STEM scholarship

2020 - present

Dean's List, College of Information and Computing, GIST

Spring 2025

GIST International Internship Support Program

September 2024 - February 2025

Korea-Germany Junior Research Fellowship Program 2024

September 2024 - February 2025

- Organized by the Max Planck POSTECH/KOREA Research (MPK)