

# HEEJUN KIM

 [Homepage](#)  [Email](#)  [GitHub](#)  [Google Scholar](#)

## EDUCATION

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### Gwangju Institute of Science and Technology (GIST)

*February 2020 - present*

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

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

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### Data Science Lab

*Feb 2025 - present, January 2024 - June 2024*

*Research Assistant*

*Gwangju, South Korea*

- 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*

*Korea-Germany Junior Research Fellowship Program 2024*

*Jülich, Germany*

- 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

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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

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### 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. [\[Poster\]](#)

### 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

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- 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

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- 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

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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

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- 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)