# Juhyeon Park

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## Education

2023 - present **Seoul National University**
Ph.D Candidate in Interdisciplinary Program in Artificial Intelligence
(Advisor: Prof. Taesup Moon)

2017 - 2023 **Seoul National University**
B.S. in Electrical and Computer Engineering (Minor: Statistics) (GPA 3.94/4.3)
Thesis: CIF: Cleansing data with influence score for fairness

## Research Interest

- Brain + AI (Alzheimer's Disease Diagnosis, Brain Decoding, Multimodality)
  *"Can AI help understand the brain? Can understanding of the brain advance AI?"*
- AI Safety (Risks from model malfunctioning: debiasing, fairness, and privacy leakage)

## Publications

(*: Equal Contribution, J: Journal, C: Conference, W: Workshop)

[**C2**] **Juhyeon Park***, Peter Yongho Kim*, Jiook Cha, Shinjae Yoo, and Taesup Moon (2026) "SEED: Towards More Accurate Semantic Evaluation for Visual Brain Decoding". In: *The Fourteenth International Conference on Learning Representations (ICLR).*

**Contributions:** Developed Cap-Sim, designed a human evaluation framework for meta-evaluation, and identified failure modes of current visual decoding models.

[**W1**] **Juhyeon Park***, Peter Yongho Kim*, Jungwoo Park*, Jubin Choi, Jungwoo Seo, Jiook Cha, and Taesup Moon (2025) "Processing fMRI Brain Signals Using Latents from Natural Image Autoencoders". In: *Foundation Models for the Brain and Body NeurIPS 2025 Workshop, Oral presentation.*

**Contributions:** Preprocessed fMRI data, co-developed a novel tokenization scheme and explored architectures to identify the best-performing design.

[**C1**] **Juhyeon Park***, Seokhyeon Jeong* and Taesup Moon (2025) "TLDR: Text Based Last-layer Retraining for Debiasing Image Classifiers". In: *In Proceedings of the Winter Conference on Applications of Computer Vision (WACV).*

**Contributions:** Developed the main algorithm, proved the key lemma, and led all experiments.

## Preprints

(*: Equal Contribution, P: Preprint)

[**P1**] **Juhyeon Park***, Donggyu Lee* and Taesup Moon (2025) "Uncovering Group Robustness Issue in Early Diagnosis of MCI to AD Conversion and A Simple Solution: Decoupled Classifier with Adaptive Linear Modulation". In: *Under Review.*

**Contributions:** Preprocessed the data, co-developed the main algorithm, led prognosis-task experiments, and conducted interpretation-related analyses.

[**P2**] Peter Yongho Kim*, **Juhyeon Park***, Jungwoo Park*, Jubin Choi, Jungwoo Seo, Jiook Cha, and

Taesup Moon (2025) "Can Natural Image Autoencoders Compactly Tokenize fMRI Volumes for Long-Range Dynamics Modeling?" In: *Under Review*.

**Contributions:** Preprocessed fMRI data, co-developed a novel tokenization scheme, identified the best-performing architecture, and designed a new task to study the link between long-range fMRI dynamics and task performance.

## Projects

**Development and Demonstration of an AI Care Service for Dementia Prevention Based on a Large-Scale Brain–Omics–Language Foundation Model** — Jul 2025 – Present

**Decoding Emotion-Contextualized Perception during Brain–External Environment Interaction Based on an Animal–Human Multiscale Neuroscience Foundation Model** — Aug 2023 – Present

**Development of Explainable AI and Robust Data Processing Technologies Incorporating Cross-Modal Correlations in Neuroscience Data, NRF of Korea** — Apr 2022 – Dec 2023

## Experience

**Intern, Naver CLOVA - Image Vision Team** — Jul 2022 – Dec 2022
Developed a lightweight algorithm for human matting and a platform for automated model evaluation and leaderboarding.

**Research Intern, M.IN.D Lab** — Jul 2021 – Feb 2023
Developed an algorithm to enhance classifier fairness by cleansing training data using influence scores.

## Honors & Awards

**Hyundai Motor Chung Mong-Koo Foundation Scholarship** — Sep 2023 - Present
Hyundai Motor Chung Mong-Koo Foundation

**SNU Merit-based Scholarship** — Spring 2023
Dept. of Electrical and Computer Engineering, Seoul National University

**SNU Merit-based Scholarship** — Spring 2021
Dept. of Electrical and Computer Engineering, Seoul National University

**HYUNSONG Educational & Cultural Foundation Scholarship** — Mar 2018 – Feb 2023
HYUNSONG Educational & Cultural Foundation

## Acadmeic Services

**Reviewer**
AAAI 2026, CVPR 2026