Jungwoo Park

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Education

Seoul National University (SNU) Mar 2020 – Feb 2027 (expected)
B.S. in Electrical and Computer Engineering *Seoul, South Korea*

- GPA: 4.04/4.3 (Cumulative), 4.09/4.3 (Major)
- Leave of absence for military service in Republic of Korea Air Force: Apr 2022 – Jan 2024 (2 years)
- Coursework: Deep Learning, Reinforcement Learning, Bayesian Statistics, Measure Theory and Probability

Gyeonggi Science High School for the Gifted (GSHS) Mar 2017 – Feb 2020
High school for gifted students in mathematics and science *Suwon, South Korea*

- GPA: 4.11/4.3 (Cumulative)

Publications

(* denotes equal contribution)

Peter Yongho Kim*, Juhyeon Park*, **Jungwoo Park***, Jubin Choi, Jungwoo Seo, Jiook Cha, Taesup Moon.
Efficient Modeling of Long-range fMRI Dynamics with a 2D Natural Image Autoencoder.
CVPR 2026 (Under Review)

Juhyeon Park*, Peter Yongho Kim*, **Jungwoo Park***, Jubin Choi, Jungwoo Seo, Jiook Cha, Taesup Moon.
Processing fMRI Brain Signals Using Latents from Natural Image Autoencoders.
NeurIPS 2025 Workshop BrainBodyFM (**Spotlight Talk**)

Research Experience

M.IN.D Lab @ SNU (Advisor: Taesup Moon) Jul 2024 – Present
Undergraduate Research Intern *Seoul, South Korea*

- Developed a novel tokenization method for fMRI data by leveraging a pre-trained 2D natural image autoencoder to compress high-dimensional 3D brain volumes into compact latent tokens.
- Trained and validated a Transformer encoder based model processing on fMRI token sequences across large fMRI datasets (UKB, HCP, ADHD-200).
- Achieved state-of-the-art performance in both clinical prediction tasks and computational efficiency.

Scholarships

SNU Semiconductor-Specialized University Scholarship Sep 2024 – Feb 2027
SNU Semiconductor-Specialized University (SNU SSU)

- Selective scholarship for academic achievement, publication grants and global scholarship support
- Awarded $700 USD for academic achievement
- Provided NVIDIA L40S and NVIDIA RTX A6000 GPUs for deep learning research

Presidential Science Scholarship Mar 2024 – Feb 2026
Korea Student Aid Foundation (KOSAF)

- Full tuition ($2,000 USD / semester) and living expenses ($1,700 USD / semester) support for undergraduate studies

Merit-based Scholarship Sep 2021 – Feb 2022
Dept. of ECE, SNU

Poster Presentations

Juhyeon Park*, Peter Yongho Kim*, **Jungwoo Park***, Jubin Choi, Jungwoo Seo, Jiook Cha, Taesup Moon.
Processing fMRI Brain Signals Using Latents from Natural Image Autoencoders.
IEEE/IEIE International Conference on Consumer Electronics (ICCE) Asia 2025
Busan, South Korea

- Research scholarship ($400 USD) granted by SNU SSU scholarship

Jungwoo Park, Junggyu Bae, Ingyu Woo, Se Young Chun.
Leveraging Denoising Models for Bad Pixel Correction on Bayer and Quad Bayer RAW Images.
MIT Undergraduate Research Technology Conference (URTC) 2025 (acceptance rate $\approx 24\%$)
Cambridge, MA

- Airfare and accommodation supported by SNU SSU scholarship

Awards

2023 SNU Dental Hospital Healthcare AI Competition Dec 2023
Grand Prize SNU Dental Hospital

- Developed a high accuracy Xception based classification model for dental cavities using synthetic oral images.

2023 Military AI Competition (MAICON) Dec 2023
Fourth Place Ministry of National Defense

- Trained deepfake video classification models.

2023 Air Force Hackathon Nov 2023
Fourth Place Republic of Korea Air Force

- Implemented instance segmentation on missile firing images from Pilsung Range.
- Applied image classification on Range-Doppler maps for military targets.

2021 Introduction to Circuit Theory and Laboratory Project Jun 2021
Grand Prize Dept. of ECE, SNU

- Designed and implemented an audio equalizer on a printed circuit board (PCB).

Skills

Programming: Python, PyTorch, MATLAB
Languages: English: Proficient (TOEFL 110), Korean: Native