Jehyun Park

Github: github.com/Parkprogrammer / Blog: https://parkprogrammer.github.io/

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Theoretical foundations of neural network generalization and optimization Function space and Circuit based understanding of Neural Networks Meta-learning and few-shot adaptation in distribution shift scenarios

EDUCATION

Mar 2020 — Present

Sungkyunkwan University

Suwon, Korea

BS., Computer Science and Engineering

GPA: 3.91/4.5

HISTORY

Mar 2025 — Aug 2025

Undergraduate Research Intern, Yonsei University ML/AI Lab

Seoul

- Conducted Research in Few-shot Learning, Task Vectors, Test-Time-Training
- Implemented algorithms and methods on task vectors in In-Context-Learning
- Focused on Solving Out-Of-Distribution Problem, Catastrophic forgetting
- Under the supervision of *Prof. Kyung Woo Song*

Sep 2024 — Feb 2025

AI Researcher, The Catholic University of Korea St. Vincent's Hospital

Suwon

- Implemented machine learning algorithms for fall risk prediction protocol
- Feature engineered and handled imbalanced dataset with methods such as K-NN imputer, t-SNE,
- Extracted meaningful vector for categorical features using Sent2Vec.
- Implemented Imbalanced-XGBoost based pipeline and achieved the best *f1-score*.

Jun 2024 — Aug 2024

Undergraduate Research Student, iisLab

SKKU

- Participated seminars for subjects such as Diffusion, Active-Learning, Flash-Attention
- Presented in Machine Learning Seminars in iisLab
- Under the supervision of Prof. Ji Hyung Lee

Mar 2024 — Jun 2024

Artificial Intelligence College Conference, TNT

SKKU

- · Participated in AI College Conference Test aNd Train for weekly studies
- Prepared and Presented Papers about self-RAGs and Sliding Window Attention, RL

Jun 2023 — Aug 2023

Industry-Academia Collaboration Software Intern, SOYNET

Seong Nam

- Participated in a year-long Industry-Academia Collaboration Project between SKKU & Soynet
- Worked at the Company as a Software Engineer for 2 months
- Ported Pytorch-based models to Tensorflow-based SOYNET Acceleration Engine
- KIST University Person RE-ID model Optimization Applied at National Safety SQI Soft Task

AWARDS & PROJECTS

2025 Samsung AI Challenge 1st Prize Winner Suwon Aug 2025 — Sep 2025 • Theme: Methods to Reduce Large Model Size Without Performance Degradation • Individually competed on optimizing and compressing Large Language Model Implemented Context-aware-Expert-Merging-and-Pruning Method on Qwen-30B-A3B Model • Compressed 30B Parameters to 23.9B by training-free Expert Merging and Pruning 1st prize winner and Awarded 7,500\$ from Samsung AI Center 20th Korean Economic Securities Derivatives Competition 2nd Place Jul 2024 — Feb 2025 Seoul Designed an ETF for IPO stocks in KOSPI & KOSDAQ Stock Market as part of a Team • Used GMM and t-SNE, Weighted K-NN for for Unsupervised similarity analysis • Implemented Portfolio Revenue Optimization using convex optimization method : Disciplined Convex Programming and SLSQ Programming • 2nd place and Awarded 4,500\$ with Korea Exchange Chairman's Award Seoul Jul 2024 — Jan 2025 LLM-based Recommendation System Health care Startup, iKooB · "Exploration of AI model architecture based on transfer learning Development of model data management platform" Collaborating with iKooB • Optimized a finetuned Llama-3 based 8B model on medical domains, implemented TF-IDF method and Chain-of-Thought (COT), Prompt tuning for Prototype model Implementation stack: vllm, langchain, ngrok, flask Received Engineering Innovation Award from SungKyunKwan University Dec 2023 — Jan 2024 Winter Global Capstone Design Project, AIIT & SKKU Tokyo, Japan Proposed a Mobility Cloud infrastructure solution for the FSD era · Collaborated with Tokyo AIIT University and participation in seminars and presentations Presented an effective construction scenario for signaling system cloud infrastructure for mobility Scenario proposal for integrated cloud and AI-based solutions Sep 2023 — Dec 2023 2023 NH Investment & Securities Big Data Competition *Finals* Seoul • Designed and trained a Vanilla Transformer Encoder for correlation analysis (Fin2Vec) • Used 1D-CNN, GRU for stock price data compression and tokenization • Implemented Self-Supervised Learning algorithm based on Self-Distillation and EMA (data2vec) Jun 2023 — Dec 2023 **Development of SNS platform exclusively for College students** SKKU Sungkyunkwan University Startup Support Group: A SNS App development project: (<u>CLIPPED</u>) Participated as a Project Manager and Frontend Developer • Implementation stack: Flutter, AWS, next.js Sungkyun Software Scholarship for bachelor's scholarship **SKKU** Jan, Sep 2020 / Sep 2023 • Sungkyun Software Scholarship Received from SungKyunKwan University 3000\$ for each 3 Semesters, total amount of 9000\$ scholarship received.

PUBLICATIONS

Adaptation in Out-Of-Distribution via Sparse Autoencoders in Vision Transformers (Under Review)

Korean Institute of Information Scientists and Engineers 2025 (bachelor's thesis')

Je Hyun Park*

Development of an Artificial Intelligence Algorithm for Fall Prediction (Under Review)

The Korean Society of Medical Informatics 2025

Jaheon Park*, Yeon Woong Chung, M.D., Ph.D.†‡, Seung Hyun Ko, M.D., Ph.D. Ph.D.\$

Development of an Artificial Intelligence Algorithm for Fall Prediction (Under Review)

The Korean Society of Artificial Intelligence in Medicine 2025

Yeon Woong Chung, M.D., Ph.D.^{†‡}, Jaheon Park*, Seung Hyun Ko, M.D., Ph.D. Ph.D.§

SKILL	Programming					
	Python	Various machine learning & processing libraries such as Pytorch, scikit-learn, Numpy, cupy, cxypy				
		Conducted many system-architecture college projects				
	C, C++	XV6, Spike-simulator, ns3, mini-shell				
	CLIDA	Optimization of pytorch functions	1			
	CUDA	: im2col, and XGBoost Minimal Variance Sampling methods				
	Next, Node.js	Web Projects using Next.js and Node.js with tailwind-css	1			
	Flutter	Developed front-end app for the SNS platform	1			
	Language					
	Korean (Native)					
	English (Fluent) (T	English (Fluent) (TOEIC: 930)				