SEOJIN KIM

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RESEARCH INTEREST

My main research goal is to efficiently adapt large language models for domain-specific applications, e.g., drug discovery(ICML'24, EMNLP'25), accelerated inference(EMNLP'25), and visual image generation([P1]).

- Domain-Specific Large Language Models ICML'24, EMNLP'25, EMNLP'25, [P1]
- AI for drug discovery TMLR'24, ICML'24, EMNLP'25,
- Robust AI system AAAI'23, TMLR'24

EDUCATION

Seoul National University, J.D. in School of Law

Mar. 2025 - Present

KAIST, M.S. in Artificial Intelligence (completed Ph.D. coursework without completing a dissertation) - Advisor: Prof. Jinwoo Shin

Sep. 2021 - Feb. 2025

KAIST, B.S. in Chemistry (major) & Mathematics (double major) & Computer Science (double major) - Ranked 1st Overall in the Chemistry Department, Summa Cum Laude (GPA: 4.08/4.3)

Mar. 2016 - Aug. 2021

PUBLICATIONS

C: conference, J: journal, W: workshop, P: preprint / * equal contribution

- [P1] FontAdapter: Instant Font Adaptation in Visual Text Generation Myungkyu Koo, Subin Kim, Sangkyung Kwak, Jaehyun Nam, Seojin Kim, Jinwoo Shin Preprint, 2025
- [C4] Training Text-to-Molecule Models with Context-Aware Tokenization <u>Seojin Kim</u>*, Hyeontae Song*, Jaehyun Nam, Jinwoo Shin Conference on Empirical Methods in Natural Language Processing (EMNLP), 2025 (findings)
- [C3] Mamba Drafters for Speculative Decoding Daewon Choi, Seunghyuk Oh, Saket Dingliwal, Jihoon Tack, Kyuyoung Kim, Woomin Song, Seojin Kim, Insu Han, Jinwoo Shin, Aram Galstyan, Shubham Katiyar, Sravan Babu Bodapati Conference on Empirical Methods in Natural Language Processing (EMNLP), 2025 (findings)
- [C2] Data-Efficient Molecular Generation with Hierarchical Textual Inversion Seojin Kim, Jaehyun Nam, Sihyun Yu, Jinwoo Shin International Conference on Machine Learning (ICML), 2024
- [C1] Confidence-aware Training of Smoothed Classifiers for Certified Robustness Jongheon Jeong*, <u>Seojin Kim</u>*, Jinwoo Shin AAAI Conference on Artificial Intelligence (AAAI), 2023 (oral)
- [J2] Confidence-aware Denoised Fine-tuning of Off-the-shelf Models for Certified Robustness Suhyeok Jang*, <u>Seojin Kim</u>*, Jinwoo Shin, Jongheon Jeong Transactions on Machine Learning Research (TMLR), 2024
- [J1] Holistic Molecular Representation Learning via Multi-view Fragmentation Seojin Kim*, Jaehyun Nam*, Junsu Kim, Hankook Lee, Sungsoo Ahn, Jinwoo Shin Transactions on Machine Learning Research (TMLR), 2024

HONORS & AWARDS

Dean's List in the School of Freshman, Fall 2016 Dean's List in the Department of Chemistry, Spring 2017 and Fall 2017 KAIST Presidential Fellowship (KPF), 2018 Dean's List in the College of Natural Science, 2019

EXPERIENCES

Internship: Institute for Basic Science (IBS), 2017 Internship: SK Hynix HARC Etch Team, 2019

Visiting student: Technische Universität München (Technical University of Munich), 2019

Research project: "Neural Differential Equation for Stock Data Prediction" (advisor: Prof. Jinwoo Shin), 2021

Invited talk: "AI-based Molecular Representation Learning & Generation" in POSTECH, 2023

Domestic patent: "Training Method and Apparatus for Adversarial Robustness of Neural Network Model", 2024 Conference reviewer: ICML (2023, 2024, 2025), NeurIPS (2023, 2024), ICLR (2024, 2025), AISTATS (2023)

Journal reviewer: TMLR (2024)