Moongyu Jeon

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Research Interests

My research focuses on **theoretically understanding diffusion language models**, with the broader goal of developing future generative language models that are both capable and amenable to principled analysis.

Education

Yonsei University Mar. 2025 - Present
Ph.D. Student in Artificial Intelligence
Advisor: Prof. Albert No

Yonsei University Mar. 2020 - Feb. 2025
B.S. in Mathematics
GPA: 4.20/4.3
Department Valedictorian (Ranked 1st out of 42)

Publications

** Equal contribution.*

Low-Confidence Remasking Traps Flexibility: Realizing Arbitrary-Order Potential for Diverse Rollouts in Diffusion LLMs
Moongyu Jeon*, Dongjae Jeon*, Bumjun Kim, Mingyu Kim, Albert No
Conference on Neural Information Processing Systems (NeurIPS) 2026 Workshops: BeNTo and DiffuLM
arXiv

A Theoretical Analysis of Why Masked Diffusion Models Mitigate the Reversal Curse
Moongyu Jeon*, Sangwoo Shin*, Bumjun Kim, Kyelim Lee, Albert No
Conference on Neural Information Processing Systems (NeurIPS) 2026
arXiv

Preserve-Then-Quantize: Balancing Rank Budgets for Quantization Error Reconstruction in LLMs
Yoonjun Cho*, Dongjae Jeon*, Soeun Kim, **Moongyu Jeon**, Albert No
International Conference on Machine Learning (ICML) 2026
arXiv Project Code

DAPD: Dependency-Aware Parallel Decoding via Attention for Diffusion LLMs
Bumjun Kim*, Dongjae Jeon*, **Moongyu Jeon***, Albert No
International Conference on Machine Learning (ICML) 2026
arXiv Project Code

Information-Theoretic Discrete Diffusion
Moongyu Jeon, Sangwoo Shin, Dongjae Jeon, Albert No
Conference on Neural Information Processing Systems (NeurIPS) 2025
arXiv Code

Research Experience

Student Researcher, AI-ISL, Yonsei University Mar. 2025 - Present
Advisor: Prof. Albert No

Teaching Experience

Teaching Assistant, Yonsei University
CAS4108 Data Privacy Spring 2025
CAS3230 Introduction to Mathematics for Deep Learning Fall 2025, Fall 2026

Academic Service

Conference on Neural Information Processing Systems (NeurIPS) 2026 Top Reviewer
International Conference on Learning Representations (ICLR) 2027 Reviewer
NeurIPS 2026 Workshop: BeNTo Reviewer