

Taehoon Yoon

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ACADEMIC INTERESTS

Generative Modeling, Probabilistic Inference: Diffusion and Flow-Matching Models, Controllable Generation, Reward Alignment, Inverse Problems, Particle-Based Sampling Methods

EDUCATION

University of Michigan - Ann Arbor

- Ph.D. in Electrical & Computer Engineering

2026 (expected) -

Advisor: [Liyue Shen](#)

Korea Advanced Institute of Science and Technology (KAIST)

- Master of Science in Artificial Intelligence

2024 - 2026

Advisor: [Minhyuk Sung](#)

Sogang University

- Bachelor of Science in Physics
- Bachelor of Science in Computer Science and Engineering

2017 - 2024

Graduated as the **top student** from the College of Natural Sciences (**Valedictorian**)

GPA: 4.27 / 4.3

PUBLICATIONS

* denotes equal contribution. C: Conference paper. W: Workshop paper. P: Preprint.

[W1] Contrastive Distribution Matching for Amortized Sequential Monte Carlo in Discrete Diffusion

Jaihoon Kim, **Taehoon Yoon**, Prin Phunyaphibarn, Seungjun Kim, Morteza Mardani, Minhyuk Sung

ICML 2026 Workshop on Structured Probabilistic Inference & Generative Modeling

[Website](#) [Paper](#) [arXiv](#) [Code](#)

[C3] Ψ -Sampler: Initial Particle Sampling for SMC-Based Inference-Time Reward Alignment in Score Models

Taehoon Yoon*, Yunhong Min*, Kyeongmin Yeo*, Minhyuk Sung

NeurIPS 2025, Spotlight (top 3.2%)

[Website](#) [Paper](#) [arXiv](#) [Code](#)

[C2] Inference-Time Scaling for Flow Models via Stochastic Generation and Rollover Budget Forcing

Jaihoon Kim*, **Taehoon Yoon***, Jisung Hwang*, Minhyuk Sung

NeurIPS 2025

[Website](#) [Paper](#) [arXiv](#) [Code](#)

[C1] GrounDiT: Grounding Diffusion Transformers via Noisy Patch Transplantation

Phillip Y. Lee*, **Taehoon Yoon***, Minhyuk Sung

NeurIPS 2024

[Website](#) [Paper](#) [arXiv](#) [Code](#)

HONORS AND AWARDS

- **Valedictorian**, College of Natural Sciences, Sogang University Feb. 2024
- **Dean's List**, Sogang University Feb. 2023, Feb. 2020
- **Top 1% Grade Award**, Sogang University Sept. 2020, Mar. 2020, Mar. 2019

RESEARCH EXPERIENCE

- Visual AI Lab, KAIST* Mar. 2024 - Dec. 2025
Graduate Researcher Advisor: [Minhyuk Sung](#)
- Visual AI Lab, KAIST* Jan. 2024 - Feb. 2024
Research Intern Advisor: [Minhyuk Sung](#)
- CJ AI Center, CJ Group* Jul. 2023 - Aug. 2023
Research Intern (hosted by Seoul National University AI Institute) Advisor: [Seong Jong Ha](#)
- Visual Computing Lab, Sogang University* Sept. 2022 - Apr. 2023
Undergraduate Research Assistant Advisor: [Joo Ho Lee](#)
- BISPL Lab, KAIST* Jul. 2022 - Sept. 2022
Research Intern Advisor: [Jong Chul Ye](#)

WORK EXPERIENCE

- Donga Science Observatory* May. 2018 - Feb. 2019
Observatory & Education Assistant

ACADEMIC SERVICE

- Reviewer**
NeurIPS 2026