Mar 2023 - Feb 2025

# Jaemin Kim

🧥 kjm981995.github.io 🛅 <u>Linkedin</u> 💌 kjm981995@kaist.ac.kr / kjm981995@gmail.com

## Research Interest

Aiming to improve the controllability of advance generative models, including diffusion models and Large Language Models (LLMs). Recently contributed to this goal by exploring efficient guidance methods, such as training-free approaches and general-purpose strategies.

#### EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)  Ph.D. in Artificial Intelligence	Mar 2025 - Now Advisor: Prof. Jong Chul Ye
Korea Advanced Institute of Science and Technology (KAIST)  M.S. in Artificial Intelligence	Mar 2023 - Feb 2025 Advisor: Prof. Jong Chul Ye
Korea Advanced Institute of Science and Technology (KAIST)  B.S. in Bio and Brain Engineering, Electrical Engineering (Double Major)	Mar 2016 - Feb 2023 GPA: 3.96/4.3 (Magna Cum Laude)
Karlsruhe Institute of Technology (KIT)  Electrical Engineering and Information Technology (Exchange Student)	Sep 2019 - Feb 2020 Karlsruhe, Germany
PUBLICATIONS *: Equal Contribution	

# Ρ

[C4] Free <sup>2</sup> Guide: Gradient-Free Path Integral Control for Enhancing Text-to-Video	
Generation with Large Vision-Language Models	ICCV~2025
Jaemin Kim, Bryan S Kim, Jong Chul Ye	

- [P2] Universal Reasoner: A Single, Composable Plug-and-Play Reasoner for Frozen LLMs Preprint 2025 Jaemin Kim\*, Hangeol Chang\*, Hyunmin Hwang\*, Choonghan Kim, Jong Chul Ye
- [C3] Optical-Flow Guided Prompt Optimization for Coherent Video Generation CVPR 2025 Hyelin Nam\*, **Jaemin Kim\***, Dohun Lee, Jong Chul Ye
- [C2] Derivative-Free Diffusion Manifold-Constrained Gradient for Unified XAI CVPR 2025 Won Jun Kim\*, Hyungjin Chung\*, Jaemin Kim\*, Sangmin Lee, Byeongsu Sim, Jong Chul Ye
- [C1] Generalized Consistency Trajectory Models for Image Manipulation ICLR 2025 Beomsu Kim\*, Jaemin Kim\*, Jeongsol Kim, Jong Chul Ye
- [P1] HiCBridge: Resolution Enhancement of Hi-C Data Using Direct Diffusion Bridge Preprint 2025 Jaemin Kim\*, Jong Chul Ye

### Honors and Awards

Dongwon-KAIST scholarship

Full scholarship for tuition and stipend	
National Science & Technology Scholarship	Mar 2018 - Mar 2020
Scholarship for attracting outstanding talents	

## Academic Activities

Teaching Assistant Mar 2025 - Jun 2025

KAIST - AI618: Generative Models and Unsupervised Learning