Joshua Tee Tian Jin, Ph.D. Candidate

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Research Interest

I am a generative AI researcher focused on diffusion and flow-based models. I study preference alignment to improve sample quality and apply knowledge distillation to speed up inference. My goal is to produce generative systems that combine high-fidelity outputs with practical efficiency for real-world use.

Education

August 2018 – July 2022 **B.S., KAIST** Double Major in Mathematics and Physics

August 2022 – Present **Ph.D.-Integrated Candidate, KAIST** Electrical Engineering

Skills

Machine Learning: Diffusion Models, Model Alignment, Large-Model Fine-tuning
Programming: Python, PyTorch, HuggingFace / Diffusers
Mathematics: Probability Theory, Linear Algebra, Optimization, Stochastic Differential Equations

Research Publications

1. **Joshua Tian Jin Tee**, Hee Suk Yoon, Abu Hanif Muhammad Syarubany, Eunseop Yoon, and Chang D. Yoo
   A Gradient Guidance Perspective on Stepwise Preference Optimization for Diffusion Models
   NeurIPS 2025
   URL: https://openreview.net/forum?id=d6lIOnvOX2

2. **Joshua Tian Jin Tee***, Kang Zhang*, Chanwoo Kim, Dhananjaya Nagaraja Gowda, Hee Suk Yoon, and Chang D. Yoo
   Physics Informed Distillation for Diffusion Models
   TMLR 2024
   URL: https://openreview.net/forum?id=a24gfxA7jD

3. Hee Suk Yoon*, **Joshua Tian Jin Tee***, Eunseop Yoon, Sunjae Yoon, Gwangsu Kim, Yingzhen Li, and Chang D. Yoo
   ESD: Expected Squared Difference as a Tuning-Free Trainable Calibration Measure
   ICLR 2023
   URL: https://openreview.net/forum?id=bHW9njOSON

4. Hee Suk Yoon*, Eunseop Yoon*, **Joshua Tian Jin Tee***, Kang Zhang, Jaeseok Kim, Du-Seong Chang, and Chang D. Yoo
   BI-MDRG: Bridging Image History in Multimodal Dialogue Response Generation
   ECCV 2024
   URL: https://doi.org/10.1007/978-3-031-72751-1_22

5. Hee Suk Yoon*, Eunseop Yoon*, **Joshua Tian Jin Tee**, Mark A. Hasegawa-Johnson, Yingzhen Li, and Chang D. Yoo
   C-TPT: Calibrated Test-Time Prompt Tuning for Vision-Language Models via Text Feature Dispersion
   ICLR 2024
   URL: https://openreview.net/forum?id=jzzEHTBFOT

6. Tung Luu, Thanh Nguyen, **Joshua Tian Jin Tee**, Sungwoong Kim, and Chang D. Yoo
   Mitigating Adversarial Perturbations for Deep Reinforcement Learning via Vector Quantization
   IROS 2024
   URL: https://ieeexplore.ieee.org/document/10802066

*Indicates equal contribution