# Phillip Yuseung Lee

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#### EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

Ph.D. in Graduate School of AI

Korea Advanced Institute of Science and Technology (KAIST)

M.S. in Graduate School of AI

Korea Advanced Institute of Science and Technology (KAIST)

B.S. in Computer Science

Mar 2025 - Present

Advisor: Minhyuk Sung

Sep 2023 - Feb 2025 Advisor: Minhyuk Sung

Mar 2017 - Sep 2023

#### Research Interests

Computer Vision, Multimodal Understanding, Generative Models

### Publications

Perspective-Aware Reasoning in Vision-Language Models via Mental Imagery Simulation

**Phillip Y. Lee**, Jihyeon Je, Chanho Park, Mikaela Angelina Uy, Leonidas Guibas, Minhyuk Sung *Preprint*, 2025

Unconditional Priors Matter! Improving Conditional Generation of Fine-Tuned Diffusion Models

Prin Phunyaphibarn, **Phillip Y. Lee**, Jaihoon Kim, Minhyuk Sung

Preprint, 2025

GrounDiT: Grounding Diffusion Transformers via Noisy Patch Transplantation

Phillip Y. Lee\*, Taehoon Yoon\*, Minhyuk Sung (\* equal contribution)

NeurIPS 2024 (Acceptance Rate: 25.8%)

ReGround: Improving Textual and Spatial Grounding at No Cost

Phillip Y. Lee, Minhyuk Sung

ECCV 2024 (Acceptance Rate: 27.9%)

SyncDiffusion: Coherent Montage via Synchronized Joint Diffusions

Phillip Y. Lee, Kunho Kim, Hyunjin Kim, Minhyuk Sung

NeurIPS 2023 (Acceptance Rate: 26.1%)

## Talks & Achievements

Oral Presentation on ReGround

Oct 2024

Presented at ECCV 2024 Unlearning and Model Editing Workshop.

Oral Presentation on SyncDiffusion

Dec 2023

Presented at NeurIPS 2023 Machine Learning for Creativity and Design Workshop.

KAIST's Research Highlight of 2023 – SyncDiffusion

May 2024

Selected as one of 29 Research Highlights in 2024 KAIST Annual R&D Report.

### WORK EXPERIENCE

Visual AI Group, KAIST

Jun 2022 - Jun 2023

Student Researcher

Omnious.AI Dec 2021 - Feb 2022

Intern (Machine Learning Engineer)

Cyper-Physical Systems Lab, KAIST Jan 2021 - Aug 2021

Student Researcher

TEACHING EXPERIENCE

CS479: Machine Learning for 3D Data Fall 2023, KAIST

Teaching Assistant

CS492(D): Diffusion Models and Their Applications Fall 2024, KAIST

Teaching Assistant

CS479: Machine Learning for 3D Data Spring 2025, KAIST

Teaching Assistant

ACADEMIC SERVICE

NeurIPS 2024, ICLR 2025, ICML 2025, TPAMI 2025

Reviewer

SKILLS

Programming Languages Python, Java, C

Deep Learning Frameworks PyTorch

Languages Korean (Native), English (Fluent)

Last updated: April 30, 2025