# **Juil Koo**

# 3<sup>rd</sup>-year Ph.D Student KAIST School of Computing

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#### **RESEARCH INTERESTS**

Generative Models, 3D Machine Learning, Vision and Language Multi-Modality

#### **EDUCATION**

Feb. 2023~ KAIST, Daejeon, Korea
Present Ph.D in Computer Science
Advisor: Minhyuk Sung

Mar. 2021~ KAIST, Daejeon, Korea
Feb. 2023 M.S. in Computer Science
Advisor: Minhyuk Sung

Mar. 2017~ Kyungpook National University, Daegu, Korea
Feb. 2021 B.S. in Electronics Engineering
GPA: 4.26 / 4.3 (ranked 1st out of 349)

#### **EMPLOYMENT**

Jul. 2024 ~ Adobe Research, London, United Kingdom

Sep. 2024 Research Intern

Mentors: Paul Guerrero, Duygu Ceylan and Chun-Hao Huang

## **PUBLICATIONS**

- [1] <u>VideoHandles: Editing 3D Object Compositions in Videos Using Video Generative Priors</u> **Juil Koo**, Paul Guerrero, Chun-Hao Huang, Duygu Ceylan, Minhyuk Sung *CVPR 2025*
- [2] <u>SyncTweedies: A General Generative Framework Based on Synchronized Diffusions</u>
  Jaihoon Kim\*, **Juil Koo**\*, Kyeongmin Yeo\*, Minhyuk Sung (\* equal contribution.)

  NeurIPS 2024
- [3] Neural Pose Representation Learning for Generating and Transferring Non-Rigid Object
  Poses

Seungwoo Yoo, **Juil Koo**, Kyeongmin Yeo, Minhyuk Sung *NeurIPS 2024* 

[4] Posterior Distillation Sampling

Juil Koo, Chanho Park, Minhyuk Sung

#### CVPR 2024

- [5] <u>SALAD: Part-Level Latent Diffusion for 3D Shape Generation and Manipulation</u> **Juil Koo**\*, Seungwoo Yoo\*, Minh Hieu Nguyen\*, Minhyuk Sung (\* equal contribution.) *ICCV 2023*
- [6] PartGlot: Learning Shape Part Segmentation from Language Reference Games

  Juil Koo, Ian Huang, Panos Achiloptas, Leonidas Guibas, Minhyuk Sung

  CVPR 2022, Accepted as Oral Presentation (Acceptance rate<4.2%)

### **AWARDS AND HONORS**

Outstanding TA Award KAIST, Korea	Feb. 2025
Best Paper Award Samsung Electronics-KAIST R&D Exchange Meeting, Korea	Aug. 2024
Outstanding TA Award KAIST, Korea	Feb. 2023
Outstanding Master's Thesis Award KAIST, Korea	Nov. 2022
Qualcomm Innovation Fellowship Korea 2022 Qualcomm, Korea	Nov. 2022
Outstanding Paper Award Korea Computer Graphics Society, Korea	Jul, 2022
Outstanding TA Award KAIST, Korea	Feb. 2022
Kwanjeong Scholarship Kwanjeong Educational Foundation, Korea	Mar. 2019
National & Technology Scholarship Korea Student Aid Foundation, Korea	Mar. 2017

# **TALK & PRESENTATION**

Speaker, SIGGRAPH 2025 Course—Diffusion Models for Image and Video	Aug. 2025
Generation: From Foundations to Emerging Directions	
Short Presentation, 3DMV, M3DS, AI4CC, AI3DG, CVEU, and GCV Workshops at CVPR 2024	Jun. 2024
Short Presentation, AI3DCC and L3DS Workshops at ICCV 2023	Sep. 2023
Short Presentation, L3DS Workshop at ECCV 2022	Oct. 2022

## **TEACHING**

Diffusion and Flow Models KAIST CS492-C	Fall 2025
Diffusion Models and Their Applications KAIST CS492-D	Fall 2024
Machine Learning for 3D Data KAIST CS479	Fall 2023
Introduction to Computer Graphics KAIST CS380	Spring 2023
Geometric Modeling and Processing KAIST CS492-J	Fall 2022
Machine Learning for 3D Data KAIST CS492-A	Spring 2022
Geometric Modeling and Processing KAIST CS492-H	Fall 2021

# **ACADEMIC SERVICE**

- CVPR Reviewer
- NeurIPS Reviewer
- ICCV Reviewer
- ECCV Reviewer
- SIGGRAPH Reviewer
- AAAI Reviewer
- TPAMI Reviewer
- Eurographics Reviewer
- GCV@CVPR2024 Workshop Reviewer
- AI4VA@ECCV2024 Workshop Reviewer
- OOD-CV@ECCV2024 Workshop Reviewer