

Joonghyuk Shin

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1, Gwanak-ro, Gwanak-gu, Seoul, Republic of Korea (08826)

EDUCATION

Seoul National University, Seoul, Republic of Korea

- Integrated M.S. and Ph.D. in Dept. of Computer Science and Engineering Sep 2023 – Present
 - Visual & Geometric Intelligence Lab, Adviser: Jaesik Park
 - Interest: Building fast, interactive, and accurate generative world models

POSTECH, Pohang, Republic of Korea

- B.S. in Dept. of Computer Science and Engineering Feb 2019 – Feb 2023
 - Graduated Summa Cum Laude (GPA: 3.97/4.3), Adviser: Jaesik Park

Korean Minjok Leadership Academy, Hoengseong, Republic of Korea

- High School Feb 2016 – Feb 2019

EXPERIENCE

NVIDIA Spatial Intelligence Lab, Santa Clara, CA, USA

- Research Scientist Intern (Planned) Jun 2026 – Dec 2026

Stealth Startup, Remote (Seoul)

- Researcher Feb 2026 – Jun 2026
 - Working with Xun Huang on video world models

Carnegie Mellon University, Pittsburgh, PA, USA

- Visiting Researcher at Robotics Institute Oct 2025 – Jan 2026
 - Hosted by Jun-Yan Zhu
 - Worked with Ruihan Gao, Ava Pun, Wenzhen Yuan, and Jun-Yan Zhu on generative AI for accessibility

Adobe Research, San Francisco, CA, USA

- Research Scientist Intern Jun 2025 – Sep 2025
 - Mentors: Xun Huang, Zhengqi Li, Richard Zhang, Jun-Yan Zhu, and Eli Shechtman
 - Worked on building fast and interactive video generative models (MotionStream)

PUBLICATIONS

* Equal contribution, † Equal advising

INTERNATIONAL

- [7] Seunguk Do, Minwoo Huh, Joonghyuk Shin, and Jaesik Park, “Direct Reward Fine-Tuning on Poses for Single Image to 3D Human in the Wild”, ICLR 2026.
- [6] [Joonghyuk Shin](#), Zhengqi Li, Richard Zhang, Jun-Yan Zhu, Jaesik Park, Eli Shechtman, and Xun Huang, “MotionStream: Real-Time Video Generation with Interactive Motion Controls”, ICLR 2026 (Oral).
- [5] Mingi Kwon*, Joonghyuk Shin*, Jaeseok Jung, Jaesik Park†, and Youngjung Uh†, “JAM-Flow: Joint Audio-Motion Synthesis with Flow Matching”, arXiv 2025.
- [4] [Joonghyuk Shin](#), Alchan Hwang, Yujin Kim, Daneul Kim, and Jaesik Park, “Exploring Multimodal Diffusion Transformers for Enhanced Prompt-based Image Editing”, ICCV 2025.
- [3] [Joonghyuk Shin](#), Daehyeon Choi, Jaesik Park, “InstantDrag: Improving Interactivity in Drag-based Image Editing”, SIGGRAPH Asia 2024.
- [2] [Joonghyuk Shin](#), Minguk Kang, Jaesik Park, “Fill-Up: Balancing Long-Tailed Data with Generative Models”, arXiv 2023.
- [1] Minguk Kang, Joonghyuk Shin, and Jaesik Park, “StudioGAN: A Taxonomy and Benchmark of GANs for Image Synthesis”, Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2023.

DOMESTIC

- [3] Joonghyuk Shin, Alchan Hwang, Yujin Kim, Daneul Kim, and Jaesik Park, “멀티모달 디퓨전 트랜스포머를 활용한 텍스트 조건 기반 정밀 이미지 편집 기법”, 37th Workshop on Image Processing and Image Understanding (IPIU), 2025.
- [2] Joonghyuk Shin, Minguk Kang, Jaesik Park, “생성모델을 활용한 데이터 불균형 문제의 완화 기법”, 36th Workshop on Image Processing and Image Understanding (IPIU), 2024.
- [1] Joonghyuk Shin, Minguk Kang, Jaesik Park, “Using Large Scale Text-to-Image Model as a Data Source for Classification”, 35th Workshop on Image Processing and Image Understanding (IPIU), 2023.

OPEN SOURCE

PyTorch StudioGAN (★3500+)

- A PyTorch library providing implementations of representative Generative Adversarial Networks (GANs).

InstantDrag (★230+)

- An optimization-free pipeline for fast, interactive drag-based image editing.

ACADEMIC SERVICES

Teaching Assistant (TA)

- Generative Artificial Intelligence, Seoul National University (CSE & IPAI), Fall 2024
- Algorithm, Seoul National University (CSE), Spring 2024

Reviewer

- ICML {2026}
- CVPR {2026}, CVPR Workshop (J2A) {2026}
- SIGGRAPH {2025, 2026}, Eurographics {2025}
- Transactions on Machine Learning Research (TMLR)
- IEEE Transactions on Multimedia (TMM)

Tech Talk

- InstantDrag: Improving Interactivity in Drag-based Image Editing – @SNU AI/Computing Frontier School and Lunch Seminar, 2025
- MotionStream: Real-Time Video Generation with Interactive Motion Controls – @Stealth Startup, Pika AI, Daydream AI, 2025

Student Mentoring

- Data Structures, POSTECH (CSE), Fall 2022
- Programming & Problem Solving, POSTECH (CSE), Spring 2021, Spring 2022, Fall 2022

AWARDS & SCHOLARSHIP

Award for Outstanding Poster Presentation, IPIU (2023, 2025)

- Awarded for the paper “Using Large Scale Text-to-Image Model as a Data Source for Classification”
- Awarded for the paper “멀티모달 디퓨전 트랜스포머를 활용한 텍스트 조건 기반 정밀 이미지 편집 기법”

Summa Cum Laude, POSTECH (2023)

- Highest graduation honor

National Science and Engineering Scholarship, Korea Student Aid Foundation (2021, 2022)

- Scholarship based on academic excellence

Best Graduation Project, POSTECH CSE (2022)

- Awarded for the project “Large-scale generative model as a data source for vision tasks”

Silver Award UNI-DTHON Datathon, UNI-D (Union of Korean University Students for CS) (2021)

- Competition on classifying food images

Global Leadership Program, POSTECH CSE (2020, 2021)

- Scholarship based on academic excellence

Best Undergraduate Research Program, POSTECH (2020)

- Awarded for the project “Neural Point Cloud Rendering of POSTECH”

Jigok Scholarship, POSTECH (2019, 2020)

- Scholarship based on academic performance

**UNDERGRAD.
(RESEARCH)
PROJECTS**

POSTECH, Pohang, Republic of Korea

- StudioGAN project Jun 2021 – Apr 2023
 - Built the StudioGAN platform for reproducible and fair evaluation of GANs
 - Worked with Minguk Kang and Jaesik Park
 - Achieved 3500+ GitHub stars
- Graduation Project (I, II) Sep 2021 – Dec 2022
 - Project II: Large-scale generative model as a data source for vision tasks
 - Project I: Improving GAN training with representation and metric learning techniques
 - Project II was selected as the Best Graduation Project of POSTECH CSE 2022
- Neural Point Cloud Rendering of POSTECH Apr 2020 – Dec 2020
 - Built a large point cloud dataset of POSTECH via drone mapping and applied neural rendering
 - Acted as team leader, advised by Professor Jaesik Park
 - Selected as the Best Undergraduate Research Program of POSTECH 2020

PROFICIENCIES

General Skills

- Language: Korean (Native), English (Fluent)
- Programming Languages: Python, C, C++ (Advanced); Java, L^AT_EX, MySQL, HTML5, CSS (Familiar)
- Frameworks & Libraries: Git, PyTorch (Advanced); TensorFlow, JAX (Familiar)