

Jihye Park

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EDUCATION

Korea University

Master in Computer science

Seoul, South Korea

Mar. 2022 - Current

Korea University

Bachelor in Mathematics

Seoul, South Korea

Mar. 2017 - Feb. 2022

WORK EXPERIENCE

Samsung Electronics, MX

AI Researcher

Suwon, South Korea

Mar. 2024 - Present

- Develop high-performance image restoration solutions (Denoising, Super-Resolution) by leveraging state-of-the-art Generative Models, specifically focusing on Diffusion models.
- Optimize generative AI pipelines for on-device deployment, enhancing the visual quality of mobile photography in Galaxy devices.
- Engineer advanced restoration models specialized for RAW data processing to maximize signal-to-noise ratio and detail preservation.

Computer Vision

Teaching Assistant

Seoul, South Korea

Sep. 2023 - Feb. 2024

Linear Algebra Course

Teaching Assistant

Seoul, South Korea

Mar. 2022 - Jun. 2022

Korea University CVLAB

Undergraduate Researcher

Seoul, South Korea

Jan. 2021 - Feb. 2022

- Participate in research related to generative adversarial model and image translation

PROJECTS

National project

Talking face Generation

Seoul, South Korea

Mar. 2022 - Nov. 2022

- Study multi-modal learning using audio and image domain in order to understand and utilize the differences between two domains
- Design a model using the GAN inversion method to learn the mapping between audio and image in the latent space
- Propose a model that can generate virtual humans using technologies such as face swap and teeth generative method

National project

Smart Child Care Project

Seoul, South Korea

Mar. 2022 - Sep. 2022

- Propose a pose estimation and object detection method that can detect children's behavior
- Improve the performance of the proposed model by adapting a pre-trained model with a large dataset to the children dataset.

HYUNDAI MOBIS

Complex Scene Translation

Seoul, South Korea

Mar. 2023 - Nov. 2023

- Attempt to solve the instance-aware translation task, which involves changing the domain (e.g, Sunny, Night) while preserving detailed instance information in complex road scenes, using a diffusion model.

Samsung Electronics

Seoul, South Korea

Transformer-based Restoration Model

Oct. 2023 - Dec. 2023

- Study various restoration models using the transformer to prove the transformer's performance.

PUBLICATIONS

International Journal

- [1] Soohyun Kim, Jongbeom Baek, **Jihye Park**, Eunjae Ha, Homin Jung, Taeyoung Lee, and Seungryong Kim. "InstaFormer++: Multi-Domain Instance-Aware Image-to-Image Translation with Transformer". In: *IJCV* (2023).

International Conference

- [1] Jaewon Min*, Jin Hyeon Kim*, Paul Hyunbin Cho, Jaeun Lee, **Jihye Park**, Minkyu Park, Sangpil Kim, Hyunhee Park Park, and Seungryong Kim. "Text-Aware Image Restoration with Diffusion Models". In: *ICLR* (2026).
- [2] Seyeon Kim*, Siyoon Jin*, **Jihye Park***, Kihong Kim, Jiyoung Kim, and Seungryong Kim. "MoDiTalker: Motion-Enhanced Diffusion Model for High-Fidelity Talking Head Generation". In: *AAAI* (2025).
- [3] Kihong Kim, Haneol Lee, **Jihye Park**, Seyeon Kim, Kwanghee Lee, Seungryong Kim, and Jaejun Yoo. "Hybrid Video Diffusion Models with 2D Triplane and 3D Wavelet Representation". In: *ECCV* (2024).
- [4] **Jihye Park***, Sunwoo Kim*, Soohyun Kim*, Seokju Cho, Jaejun Yoo, Youngjung Uh, and Seungryong Kim. "LANIT: Language-Driven Image-to-Image Translation for Unlabeled Data". In: *CVPR* (2023).
- [5] Soohyun Kim, Jongbeom Baek, **Jihye Park**, Gyeongnyeon Kim, and Seungryong Kim. "Instaformer:Instance-aware image-to-image translation with transformer". In: *CVPR* (2022).
- [6] Yunsung Lee*, Gyuseong Lee*, Kwangrok Ryoo*, Hyojun Go*, **Jihye Park***, and Seungryong Kim. "Toward Flexible Inductive Bias via Progressive Reparameterization Scheduling". In: *ECCVW* (2022).

AWARDS

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|---|------|
| Silver Prize 2022 Workshop of Image Processing and Image Understanding (IPIU) | 2022 |
| Award for Academic Excellence Korea University | 2021 |
| Award for Academic Excellence Korea University | 2020 |

ACADEMIC SERVICES

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|---|------|
| Reviewer Computer Vision and Pattern Recognition (CVPR) | 2023 |
| Teaching Assistant 삼성전자 AI 응용 시각 8월 과정 | 2023 |

SKILLS

Programming

Python

Frameworks

Pytorch

Tools

Git, Docker, Linux, Shell (Bash/Zsh), L^AT_EX(Overleaf/R Markdown)