

Jihye Park

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PERSONAL PROFILE

AI Researcher who is interested in **Generative AI**. Extensive experience in multi-modal generative research, specifically in audio-driven synthesis and text-guided image translation, resulting in high-impact academic contributions at top-tier conferences. Transitioned this expertise into the field of Image Restoration, where I currently develop and optimize generative pipelines for denoising and super-resolution to deliver enhanced visual experiences.

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 Seoul, South Korea
Smart Child Care Project 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 Seoul, South Korea
Complex Scene Translation 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, Jaeeun 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

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

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

SKILLS

Programming

Python

Frameworks

Pytorch

Tools

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