Jaeha Kim

Contact Information

Affiliation: Department of ECE, ASRI, Seoul National University (SNU), Seoul, Korea

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Github: https://github.com/JaehaKim97 Homepage: https://JaehaKim97.github.io/

Education

Integrated Ph.D. program in Department of ECE

Sep. 2019 - Present

Seoul National University (SNU), Seoul, Korea

Advisor: Kyoung Mu Lee

GPA 4.27 / 4.30

B.S. in Department of EE

Mar. 2015 – Feb. 2019

Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea

GPA 4.10 / 4.30 (Summa Cum Laude, Dean's List)

International Publications (Selected)

- Jaeha Kim, Junghun Oh, and Kyoung Mu Lee, "Beyond Image Super-Resolution for Image Recognition with Task-Driven Perceptual Loss," In Proc. Computer Vision and Pattern Recognition (CVPR), 2024.
- Yeonguk Oh*, Joonkyu Park*, **Jaeha Kim* (equal contribution)**, Gyeongsik Moon, and Kyoung Mu Lee, "Recovering 3D Hand Mesh Sequence from a Single Blurry Image: A New Dataset and Temporal Unfolding," In Proc. Computer Vision and Pattern Recognition (**CVPR**), 2023.
- Sanghyun Son*, **Jaeha Kim*** (equal contribution), Wei-Sheng Lai, Ming-Hsuan Yang, and Kyoung Mu Lee, "Toward Real-World Super-Resolution via Adaptive Downsampling Models," IEEE Trans. Pattern Analysis and Machine Intelligence (**TPAMI**),

Research Interests

I am interested in low-level image restoration challenges utilizing deep learning approaches, including super-resolution, deblurring, and denoising. My specific focus is on the development of image restoration techniques at the application level. This involves: "real-world restoration," which aims to reconstruct high-resolution images from real-world inputs, and "task-aware restoration," which is designed to enhance the performance of subsequent high-level tasks. Additionally, I am also interested in generative models, such as Generative Adversarial Networks (GANs) and diffusion models, within the context of image processing.

Research Projects

Image Restoration for Improving Barcode Detection Performance	Dec, 2021 - Nov. 2022
Hanwha Techwin	
Efficient Vision Transformer for Image Super-Resolution Naver	May, 2021 – May. 2022
Object Re-Identification and Tracking on Drone Images Artifical Intelligence Grand Challenge	Mar, 2019 – July. 2019

Service

Conference Reviewer

CVPR, ECCV 2022 – Present

Skills

PyTorch, PyTorch-Lightning, Python, MATLAB, C++, LATEX

Teaching Assistant

EE729.003: Advanced Issues in Computer Vision

Sep. 2021 – Dec. 2021

Seoul National University, Seoul, Korea

Scholarships

National Science & Technology Scholarship, Korea Student Aid Foundation

2015 - 2019

Certifications

Test of English Proficiency (TEPS): 458/600

Sep. 2020 – Expired

Level 1, Near-Native Level of English Proficiency

Reference

Advisor Kyoung Mu Lee

Professor

Seoul National University kyoungmu(at)snu.ac.kr

https://cv.snu.ac.kr/index.php/kmlee