Joonkyu Park

Curriculum Vitae

Department of ECE&ASRI
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My Webpage
Github

Research Interests

I am interested in deep learning and computer vision, exploring image restoration and human 3D reconstruction, combining high-level and low-level tasks in my recent research. Currently, I am focused on creating an image restoration dataset that aligns with general images and developing a model to predict visually pleasing results. Especially, I look forward to working on:

- **Restoring images** from the degradations (*e.g.*, blur, noise, low-resolution, and low-lighting) that aligns with real-world scenarios.
- **Implementing a 3D human-based prior in image restoration tasks**, such as constraining restored human outputs to maintain kinematics.

Education & Service

2021–present **Integrated Ph.D. program, Electrical & Computer Engineering**.
Seoul National University

2017–2019 : **Military Service**.
Republic of Korea Army

2015–2021 : **Bachelor of Engineering, Electrical and Computer Engineering**.
Seoul National University

Publications (Selected)

2026 **Joonkyu Park**, Wooseok Lee, Jaeha Kim, Sehoon Kim, Bokyeung Lee, and Kyoung Mu Lee. Learning to corrupt for better restoration. *ECCV*, 2026.

2026 **Joonkyu Park** and Kyoung Mu Lee. Bridging the distribution gap to harness pretrained diffusion priors for super-resolution. *ICLR*, 2026.

2025 Peng Xu, Shengwu Xiong, Jiajun Zhang, Yaxiong Chen, Bowen Zhou, Chen Change Loy, David Clifton, Kyoung Mu Lee, Luc Van Gool, Ruiming He, et al. Mars2 2025 challenge on multimodal reasoning: Datasets, methods, results, discussion, and outlook. *ICCVW*, 2025, (*PDF*).

2024 **Joonkyu Park**, Gyeongsik Moon, Weipeng Xu, Evan Kaseman, Takakki Shiratori, and Kyoung Mu Lee. 3d hand sequence recovery from real blurry images and event stream. *ECCV*, 2024, (*PDF*).

2024 Dongwoo Lee, **Joonkyu Park**, and Kyoung Mu Lee. A 3d scene-based dataset for realistic image deblurring. *NeurIPS*, 2024, (*PDF*).

2023 **Joonkyu Park**, Sanghyun Son, and Kyoung Mu Lee. Content-aware local gan for photo-realistic super-resolution. *ICCV*, 2023, (*PDF*).

2023 **Joonkyu Park***, Daniel Sungho Jung*, Gyeongsik Moon*, and Kyoung Mu Lee. Extract-and-adaptation network for 3d interacting hand mesh recovery. *ICCVW (Oral)*, 2023, (*PDF*).

2023 **Joonkyu Park**, Cheeun Hong, Sungyong Baik, and Kyoung Mu Lee. Colanet: Adaptive context and latent information blending for face image inpainting. *SPL*, 2023, (*PDF*).

2023 Yeonguk Oh*, **Joonkyu Park***, Jaeha Kim*, Gyeongsik Moon, and Kyoung Mu Lee. Recovering 3d hand mesh sequence from a single blurry image: A new dataset and temporal unfolding. *CVPR*, 2023, (*PDF*).

2022 **Joonkyu Park**, Yeonguk Oh, Gyeongsik Moon, Hongsuk Choi, and Kyoung Mu Lee. Handoccnet: Occlusion-robust 3d hand mesh estimation network. *CVPR*, 2022, (*PDF*).

2022 **Joonkyu Park**, Seungjun Nah, and Kyoung Mu Lee. Recurrence-in-recurrence networks for video deblurring. *BMVC*, 2022, (*PDF*).

2022 Hongsuk Choi, Gyeongsik Moon, **Joonkyu Park**, and Kyoung Mu Lee. Learning to estimate robust 3d human mesh from in-the-wild crowded scenes. *CVPR*, 2022, (*PDF*).

Work Experience

07,2023 – 01,2024 ***Meta***.
Research Internship: Building a dataset of real blurry hand images and creating a baseline network for it.
Adivisor: Dr. Takaaki Shiratori

09,2022 – 12,2022 ***Seoul National University***.
College Teaching Assistant.
Adivisor: Prof. Kyoung Mu Lee

Projects

03,2025 – present ***Research Project with Samsung MX***.
Large-Scaled Image Restoration.

06,2025 – 12,2025 ***Research Project with Samsung CLab***.
On-device Video inpainting.

03,2024 – 12,2024 ***Research Project with Samsung MX***.
Large-Scaled Image Restoration.

03,2023 – 12,2023 ***Research Project with Samsung Research***.
Tunable SW ISP Algorithm.

03,2021 – 12,2021 ***Research Project with Samsung Research***.
Domain Adaptation for Oven Recipes.

Honors

2024 ***Selected as a finalist in Qualcomm Innovation Fellowship Korea***.

2022 ***Selected as a finalist in Qualcomm Innovation Fellowship Korea***.

Academic Services

Program Committee

Conference *AAAI*

Reviewer

Conference *CVPR, ICCV, ICCVW, ECCV, ECCVW, NeurIPS, WACV, ACCV, ICLR, ACMMM, ICML*

Journal *TVCJ, TCSVT, JIVP, EURASIP*

Computer skills

Languages Python, PyTorch, PyTorch3D, OpenCV, PIL, C/C++, MATLAB, Tensorflow, , LaTeX