Jun-Hyuk Kim, Ph.D. Candidate

CONTACT INFORMATION

School of Integrated Technology
College of Engineering
Yonsei University
85 Songdogwahak-ro, Incheon 21983, Korea

E-mail: junhyuk.kim@yonsei.ac.kr
Web: junhyukk.github.io

RESEARCH INTERESTS

My research interests include low-level computer vision and deep learning.
- Deep learning-based image super-resolution
- Deep learning-based image compression

EDUCATION

M.S./Ph.D. Student, School of Integrated Technology, College of Engineering
Yonsei University, Korea 2015 - present

B.S., School of Integrated Technology, College of Engineering
Yonsei University, Korea 2015

JOURNAL

J.-H. Kim, J.-H. Choi, M. Cheon, and J.-S. Lee, "MAMNet: Multi-path adaptive modulation network for image super-resolution," *Neurocomputing*, vol. 402, pp. 38–49, 2020.

J.-H. Choi, **J.-H. Kim**, M. Cheon, and J.-S. Lee, "Deep learning-based image super-resolution considering quantitative and perceptual quality," *Neurocomputing*, vol. 398, pp. 347–359, 2020.

S.-E. Moon, **J.-H. Kim**, S.-W. Kim, and J.-S. Lee, "Prediction of car design and perception using EEG and gaze patterns," *IEEE Transactions on Affective Computing*, accepted.

CONFERENCE

J.-H. Choi, H. Zhang, **J.-H. Kim**, C.-J. Hsieh, and J.-S. Lee, "Adversarially robust deep image super-resolution using entropy regularization," in *Proceedings of the Asian Conference on Computer Vision (ACCV)*, 2020.

K.-H. Ahn, **J.-H. Kim**, J.-H. Choi, and J.-S. Lee, "Multi-scale adaptive residual network using total variation for real image super-resolution," in *Proceedings of the IEEE International Conference on Consumer Electronics Asia (ICCE-Asia)*, 2020.

M.-S. Choi, **J.-H. Kim**, J.-H. Choi, and J.-S. Lee, "Efficient bokeh effect rendering using generative adversarial network," in *Proceedings of the IEEE International Conference on Consumer Electronics Asia (ICCE-Asia)*, 2020.

J.-H. Kim, S. Jang, J.-H. Choi, and J.-S. Lee, "Instability of successive deep image compression," in *Proceedings of the ACM International Conference on Multimedia (MM)*, 2020.

G.-W. Jeon, J.-H. Choi, **J.-H. Kim**, and J.-S. Lee, "LarvaNet: hierarchical super-resolution via multi-exit architecture," in *Proceedings of the European Conference on Computer Vision (ECCV) Workshops*, 2020.

K. Zhang et al. (including **J.-H. Kim**), "AIM 2020 challenge on efficient super-resolution: methods and results," in *Proceedings of the European Conference on Computer Vision (ECCV) Workshops*, 2020.

P. Wei et al. (including **J.-H. Kim**), "AIM 2020 challenge on real image super-resolution: methods and results," in *Proceedings of the European Conference on Computer Vision (ECCV) Workshops*, 2020.

J.-H. Kim, J.-H. Choi, J. Chang, and J.-S. Lee, "Efficient deep learning-based lossy image compression via asymmetric autoencoder and pruning," in *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2020.

J.-H. Choi, **J.-H. Kim**, and J.-S. Lee, "SRZoo: An integrated repository for super-

resolution using deep learning," in *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2020.

J.-H. Choi, H. Zhang, **J.-H. Kim**, C.-J. Hsieh, and J.-S. Lee, "Evaluating robustness of deep image super-resolution against adversarial attacks," in *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2019.

J.-H. Kim, J.-H. Choi, C.-H. Seo, J. Chang, and J.-S. Lee, "Deep learning-based super-resolution for digital comics," in *Proceedings of the SIGGRAPH Asia Posters*, 2018.

M. Cheon, **J.-H. Kim**, J.-H. Choi, and J.-S. Lee, "Generative adversarial network-based image super-resolution using perceptual content losses," in *Proceedings of the European Conference on Computer Vision (ECCV) Workshops*, 2018.

J.-H. Kim and J.-S. Lee, "Deep residual network with enhanced upscaling module for super-resolution," in *Proceedings of the IEEE Conference on Computer Vision (CVPR) Workshops*, 2018.

R. Timofte et al. (including **J.-H. Kim**), "NTIRE 2018 challenge on single image super-resolution: methods and results," in *Proceedings of the IEEE Conference on Computer Vision (CVPR) Workshops*, 2018.

S.-E. Moon, **J.-H. Kim**, S.-W. Kim, and J.-S. Lee, "Assessing product design using photos and real products," in *Proceedings of the CHI Conference Extended Abstracts on Human Factors in Computing Systems*, 2017.

J.-H. Kim and J.-S. Lee, "Travel photo album summarization based on aesthetic quality, interestingness, and memorableness," in *Proceedings of APSIPA Annual Summit and Conference*, 2016.

PREPRINT

J.-H. Choi, **J.-H. Kim**, M. Cheon, and J.-S. Lee, "Lightweight and efficient image super-resolution with block state-based recursive network," *arXiv:1811.12546*, 2018.

AWARDS

Merit Academic Paper Award, *2020-2 Yonsei Superior Paper Award*, 2020.

2nd Place (Region 1), Yonsei-MCML team, *Super-Resolution Challenge on Perceptual Image Restoration and Manipulation (PIRM)*, in conjunction with ECCV, 2018.

2nd Place (Region 2), Yonsei-MCML team, *Super-Resolution Challenge on Perceptual Image Restoration and Manipulation (PIRM)*, in conjunction with ECCV, 2018.