Seungjun Nah

Contact Information

Affiliation NVIDIA Corporation, Santa Clara, USA

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GitHub https://github.com/SeungjunNah Homepage https://seungjunnah.github.io

Google Scholar profile

Research Interests

I am interested in deep learning and low-level computer vision problems, especially visual quality enhancement and computational photography. My recent research topics include deblurring, super-resolution, neural network compression and acceleration.

Education

March 2014 - Seoul National University

August 2021 Ph.D. in School of Electrical and Computer Engineering

Advisor: Kyoung Mu Lee

March 2010 - Seoul National University

February 2014 B.S. in School of Electrical and Computer Engineering

Experiences

- Research Scientist, NVIDIA Corporation, Santa Clara, CA, USA, 01.2022 current
- Postdoctoral Researcher, Seoul National University, Seoul, Korea, 09.2021 11.2021
- Guest Scientist, Max Planck Institute for Intelligent Systems, Tübingen, Baden-Württemberg, Germany, 04.2019 10.2019
- Research Intern, Microsoft Research, Redmond, WA, USA, 05.2017 08.2017

Awards and Honors

- KCCV Sang-Uk Lee Prize, 2022
- Outstanding Reviewer: CVPR 2021, ICCV 2019, 2021, ECCV 2020
- Distinguished Dissertation Award: Department of ECE, SNU, 2021
- CVPR 2021 Doctoral Consortium
- Highly Cited Paper Award: Department of ECE, SNU, 2018
- AWS Cloud Credits for Research, 2018
- \bullet Challenge Winner & Best Paper: NTIRE 2017 Challenge on Single Image Super-Resolution
- Microsoft Azure Research Award, 2017

Scholarships

- Youlchon AI Star Scholarship, Youlchon Foundation, 2020
- Ph. D. Scholarship, Max Planck Society, 04.2019 10.2019
- \bullet Electrical Engineering and Computer Science Graduate Student program, Korea Foundation for Advanced Studies, 2014 2018
- \bullet National Scholarship for Science & Engineering, Korea Student Aid Foundation, 2010 2013

Community Activities

- \bullet Conference reviewer: CVPR, ICCV, ECCV, WACV, SIGGRAPH, SIGGRAPH Asia, NeurIPS, AAAI, ICLR, ICML
- Journal reviewer: IEEE TPAMI, TIP, TNNLS, JSTSP, TMM, TCI, SPL. Springer IJCV, TVCJ, Elsevier CVIU
- Workshop reviewer: NTIRE 2019-2021. AIM 2019-2020, LCI 2021
- Workshop co-organizer: NTIRE 2019-2021. AIM 2019-2020, AI4CC 2022

Publications (Selected)

- Cheeun Hong, Sungyong Baik, Heewon Kim, **Seungjun Nah**, and Kyoung Mu Lee, "Content-Aware Dynamic Quantization for Image Super-Resolution," ECCV 2022.
- Junghun Oh, Heewon Kim, **Seungjun Nah**, Cheeun Hong, Jonghyun Choi, and Kyoung Mu Lee, "Attentive Fine-Grained Structured Sparsity for Image Restoration," CVPR 2022. PDF
- Seungjun Nah, Sanghyun Son, Jaerin Lee, and Kyoung Mu Lee, "Clean Images are Hard to Reblur: Exploiting the Ill-Posed Inverse Task for Dynamic Scene Deblurring," ICLR 2022.
- Joonkyu Park, **Seungjun Nah**, and Kyoung Mu Lee, "Recurrence-in-Recurrence Networks for Video Deblurring," BMVC 2021. PDF
- Seungjun Nah, Sanghyun Son, Suyoung Lee, Radu Timofte and Kyoung Mu Lee et al., "NTIRE 2021 Challenge on Image Deblurring," CVPRW 2021. PDF
- Sanghyun Son, Jaerin Lee, **Seungjun Nah**, Radu Timofte and Kyoung Mu Lee *et al.*, "AIM 2020 Challenge on Video Temporal Super-Resolution," ECCVW 2020. PDF
- Seungjun Nah, Sanghyun Son, Radu Timofte and Kyoung Mu Lee et al., "NTIRE 2020 Challenge on Image and Video Deblurring," CVPRW 2020. PDF
- Seungjun Nah, Sanghyun Son, Radu Timofte and Kyoung Mu Lee et al., "AIM 2019 Challenge on Video Temporal Super-Resolution: Methods and Results," ICCVW 2019. PDF
- Seungjun Nah, Sungyong Baik, Seokil Hong, Gyeongsik Moon, Sanghyun Son, Radu Timofte, and Kyoung Mu Lee, "NTIRE 2019 Challenge on Video Deblurring and Super-Resolution: Dataset and Study," CVPRW 2019. PDF
- Seungjun Nah, Sanghyun Son, and Kyoung Mu Lee, "Recurrent Neural Networks with Intra-Frame Iterations for Video Deblurring," CVPR 2019. PDF
- Sanghyun Son, **Seungjun Nah**, and Kyoung Mu Lee, "Clustering Convolutional Kernels to Compress Deep Neural Networks," ECCV 2018. PDF
- Tae Hyun Kim, **Seungjun Nah**, and Kyoung Mu Lee, "Dynamic Video Deblurring using a Locally Adaptive Linear Blur Model," IEEE TPAMI, 2018. PDF
- Bee Lim, Sanghyun Son, Heewon Kim, **Seungjun Nah**, and Kyoung Mu Lee, "Enhanced Deep Residual Networks for Single Image Super-Resolution," CVPRW 2017. (**Challenge Winner, Workshop Best Paper**) PDF
- Seungjun Nah, Tae Hyun Kim, and Kyoung Mu Lee, "Deep Multi-scale Convolutional Neural Network for Dynamic Scene Deblurring," CVPR 2017. (Spotlight) PDF

References

Ph.D. Advisor Prof. Kyoung Mu Lee

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Collaborator Prof. Tae Hyun Kim

Professor at Hanyang University taehyunkim@hanyang.ac.kr

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