

Seonghyeon Nam

PH.D., COMPUTER SCIENCE

RESEARCH INTERESTS

Computer Vision, Machine Learning
computational photography, deep generative models, learning with minimal supervision

EXPERIENCE

- Meta (Facebook)**, Burlingame, California, United States
Research Scientist Feb' 22 - Present
- York University**, Toronto, Ontario, Canada
Postdoctoral Fellow Jan' 21 - Jan' 22
- Supervisor: Prof. Michael S. Brown
- Samsung AI Center**, Toronto, Ontario, Canada
Postdoctoral Intern Aug' 21 - Nov' 21
- Supervisor: Prof. Michael S. Brown
- Snap Inc.**, Venice, California, United States
Research Intern May' 18 - Aug' 18
- Advisor: Dr. Chongyang Ma
- Yonsei University**, Seoul, South Korea
Research Assistant Mar' 14 - Aug' 20
- Advisor: Prof. Seon Joo Kim

EDUCATION

- Yonsei University**, Seoul, South Korea
Ph.D., Computer Science Mar' 14 - Aug' 20
Advisor: Prof. Seon Joo Kim
GPA: 4.10/4.3
- Yonsei University**, Seoul, South Korea
B.S., Computer Science Mar' 09 - Feb' 14
GPA: 3.69/4.3

PUBLICATIONS

- H. Jung, **S. Nam**, N. Sarafianos, S. Yoo, A. Sorkine-Hornung, and R. Ranjan. Geometry Transfer for Stylizing Radiance Fields. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* 2024.
- Z. Wan, C. Richardt, A. Bozic, C. Li, V. Rengarajan, **S. Nam**, X. Xiang, T. Li, B. Zhu, R. Ranjan, and J. Liao. Learning Neural Duplex Radiance Fields for Real-Time View Synthesis. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.
- S. Yang, S. Jeon, **S. Nam**, and S. J. Kim. Dense Interspecies Face Embedding. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2022.
- S. Nam**, M. A. Brubaker, and M. S. Brown. Neural Image Representations for Multi-Image Fusion and Layer Separation. In *Proceedings of the European Conference on Computer Vision (ECCV)*, 2022.

- Y. H. Kim, **S. Nam**, and S. J. Kim. 2PESNet: Towards Online Processing of Temporal Action Localization. *Pattern Recognition (PR)* 131 (2022): 108871.
- S. Nam**, A. Punnappurath, M. A. Brubaker and M. S. Brown. Learning sRGB-to-Raw-RGB De-rendering with Content-Aware Metadata. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.
- D. Kim, J. W. Kim, **S. Nam**, D. Lee, Y. Lee, N. Kang, H.-E. Lee, B. Yoo, J.-J. Han, and S. J. Kim. Large Scale Multi-Illuminant (LSMI) Dataset for Developing White Balance Algorithm under Mixed Illumination. In *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2021.
- Y. H. Kim, **S. Nam**, and S. J. Kim. Temporally Smooth Online Action Detection using Cycle-consistent Future Anticipation. *Pattern Recognition (PR)* 116 (2021): 107954.
- S. Jeon, **S. Nam**, S. W. Oh, and S. J. Kim. Cross-Identity Motion Transfer for Arbitrary Objects through Pose-Attentive Video Reassembling. In *Proceedings of the European Conference on Computer Vision (ECCV)*, 2020.
- Y. Kim, **S. Nam**, I. Cho, and S. J. Kim. Unsupervised Keypoint Learning for Guiding Class-Conditional Video Prediction. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.
- S. Nam**, C. Ma, M. Chai, W. Brendel, N. Xu, and S. J. Kim. End-to-End Time-Lapse Video Synthesis from a Single Outdoor Image. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.
- S. Nam**, Y. Kim, and S. J. Kim. Text-Adaptive Generative Adversarial Networks: Manipulating Images with Natural Language. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2018 (**Spotlight**).
- S. Nam** and S. J. Kim. Modelling the Scene Dependent Imaging in Cameras with a Deep Neural Network. In *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2017.
- S. Nam**^{*1}, Y. Hwang*, Y. Matsushita, and S. J. Kim. A Holistic Approach to Cross-Channel Image Noise Modeling and its Application to Image Denoising. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016 (**Spotlight**).

PATENT

Registration

Method and Apparatus for Generating Video Based on Keypoints. **Korea Patent No. 10-2231391**

Apparatus and method for generating manipulated image based on natural language and system using the same. **Korea Patent No. 10-2192015**

Method and apparatus for image adjustment based on semantics-aware. **Korea Patent No. 10-2192016**

ACADEMIC SERVICE

Conference Reviewer

IEEE Conference on Computer Vision and Pattern Recognition (CVPR)	2018 - Present
IEEE International Conference on Computer Vision (ICCV)	2019 - Present
European Conference on Computer Vision (ECCV)	2020
Advances in Neural Information Processing Systems (NeurIPS)	2020 - Present

¹Equal contribution

International Conference on Learning Representations (ICLR)	2021
AAAI Conference on Artificial Intelligence (AAAI)	2020
Asian Conference on Computer Vision (ACCV)	2018
Winter Conference on Applications of Computer Vision (WACV)	2017, 2018

Journal Reviewer

IEEE Transactions on Pattern Recognition and Machine Intelligence (**TPAMI**)
 IEEE Transactions on Image Processing (**TIP**)
 Computer Vision and Image Understanding (**CVIU**)

**HONORS &
AWARDS**

Outstanding Reviewer , ICCV 2021	2021
VISTA Postdoctoral Fellowship , \$55,000CAD/year, York University	2021
Postdoctoral Fellowship , \$39,000/year, National Research Foundation of Korea	2021
NAVER Fellowship , \$4,300, NAVER Corp.	2017
Excellent Paper Award , Dept. of Computer Science, Yonsei University	2016
Bronze Prize , \$4,300, 22 nd Samsung HumanTech Paper Award	2016
Global Ph.D. Fellowship , \$26,000/year, National Research Foundation of Korea	2015 - 2019

SKILLS

Languages
 Python, C/C++, Matlab, Java, C#, HTML, PHP

Deep Learning Libraries
 PyTorch, TensorFlow, Caffe, Keras

ETC
 OpenCV, Android SDK