Namhyuk Ahn

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WORK EXPERIENCE

Researcher, Webtoon AI, NAVER WEBTOON Corp. *Aug. 2021 - Present*
Visiting Researcher, Clova AI Research, NAVER Corp. *Sep. 2019 - Oct. 2020*
Intern, Clova AI, NAVER Corp. *June 2018 - Aug. 2018*

EDUCATION

Ajou University *Mar. 2016 - Aug. 2021*
Ph.D. in Artificial Intelligence
Advisor: Prof. Kyung-Ah Sohn
Thesis: Toward an Efficient Deep Image Restoration Method

Ajou University *Mar. 2012 - Feb. 2016*
Bachelor of Media in Digital Media

PUBLICATIONS

(*: equal contribution)
(**C**: peer-reviewed conference, **J**: A: peer-reviewed journal, **W**: peer-reviewed workshop, **P**: preprint or submitted)

[P2] Sungnyun Kim, Junsoo Lee, Kibeom Hong, Daesik Kim, **Namhyuk Ahn**. DiffBlender: Scalable and Composable Multimodal Text-to-Image Diffusion Models. *preprint* arXiv:2305.15194

[P1] Jihye Back, **Namhyuk Ahn**, Jangho Kim. Magnitude Attention-based Dynamic Pruning. *preprint* arXiv:2306.05056

[J3] **Namhyuk Ahn**, Jaejun Yoo, Kyung-Ah Sohn. Data Augmentation for Low-Level Vision: CutBlur and Mixture-of-Augmentation. International Journal of Computer Vision (**IJCV**) 2024 (IF=**19.5**)

[J2] Jeong-Hyeon Moon*, **Namhyuk Ahn***, Kyung-Ah Sohn. Decomposing Texture and Semantics for Out-of-distribution Detection. Expert Systems with Applications (**ESWA**) 2024 (IF=**8.5**)

[J1] **Namhyuk Ahn**, Byungkon Kang, Kyung-Ah Sohn. Efficient Deep Neural Network for Photo-realistic Image Super-Resolution. Pattern Recognition (**PR**) 2022 (IF=**8.0**)

[C8] **Namhyuk Ahn**, Junsoo Lee, Chunggi Lee. Kunhee Kim, Daesik Kim, Seung-Hun Nam, Kibeom Hong. DreamStyler: Paint by Style Inversion with Text-to-Image Diffusion Models. **AAAI** 2024

[C7] Kibeom Hong, Seogkyu Jeon, Junsoo Lee, **Namhyuk Ahn**, Kunhee Kim, Daesik Kim, Youngjung Uh, Hyeran Byun. AesPA-Net: Aesthetic Pattern-Aware Style Transfer Networks. **ICCV** 2023

[C6] **Namhyuk Ahn**, Patrick Kwon, Jihye Back, Kibeom Hong, Seungkwon Kim. Interactive Cartoonization with Controllable Perceptual Factors. **CVPR** 2023

[C5] Jihye Back*, Seungkwon Kim*, **Namhyuk Ahn**. WebtoonMe: A Data-Centric Approach for Full-Body Portrait Stylization. **SIGGRAPH Asia** 2022 (Technical Communications)

[C4] Sijin Kim*, **Namhyuk Ahn***, Kyung-Ah Sohn. Restoring Spatially-Heterogeneous Distortions using Mixture of Experts Network. **ACCV** 2020

[C3] Jaejun Yoo*, **Namhyuk Ahn***, Kyung-Ah Sohn. Rethinking Data Augmentation for Image Super-resolution: A Comprehensive Analysis and a New Strategy. **CVPR** 2020

[C2] **Namhyuk Ahn**, Byungkon Kang, Kyung-Ah Sohn. Fast, Accurate, and Lightweight Super-Resolution with Cascading Residual Network. **ECCV** 2018

[C1] **Namhyuk Ahn**, Byungkon Kang, Kyung-Ah Sohn. Image Distortion Detection using Convolutional Neural Network. **ACPR** 2017

[W6] Kwangho Lee, Patrick Kwon, Myung Ki Lee, **Namhyuk Ahn**, Junsoo Lee. LPMM: Intuitive Pose Control for Neural Talking-Head Model via Landmark-Parameter Morphable Model. **CVPRW** 2023

[W5] Seungkwon Kim, Chaeheon Gwak, Dohyun Kim, Kwangho Lee, Jihye Back, **Namhyuk Ahn**, Daesik Kim. Cross-Domain Style Mixing for Face Cartoonization. **CVPRW** 2022

[W4] Wooksu Shin, **Namhyuk Ahn**, Jeong-Hyeon Moon, Kyung-Ah Sohn. Exploiting Distortion Information for Multi-degraded Image Restoration. **CVPRW** 2022

[W3] Junekyu Park, Jeong-Hyeon Moon, **Namhyuk Ahn**, Kyung-Ah Sohn. What is Wrong with One-Class Anomaly Detection? **ICLRW** 2021

[W2] **Namhyuk Ahn***, Jaejun Yoo*, Kyung-Ah Sohn. SimUSR: A Simple but Strong Baseline for Unsupervised Image Super-resolution. **CVPRW** 2020

[W1] **Namhyuk Ahn**, Byungkon Kang, Kyung-Ah Sohn. Image Super-resolution via Progressive Cascading Residual Network. **CVPRW** 2018

PROFESSIONAL SERVICE

Reviewer

· Conference: CVPR (2023), ICCV (2023)
· Journal: TPAMI, TIP, TMM, TCSVT, SPIC
· Workshops: NTIRE (@ CVPR 2022)

Guest Editor

· Mathematical Biosciences and Engineering

MISCELLANEOUS

Press

· "미국 · 유럽 · 일본도 '감탄'...웹툰 AI 시대 열어야죠", Tech M *Feb. 2023*
· "내 얼굴이 웹툰 캐릭터로 변했다", Digital daily *Jan. 2023*
· "日本のマンガを脅かす韓「ウェブトゥン」AI等の活用で急追", Korea world times *Dec. 2022*

Teaching

· Lecture Instructor, Fastcampus *Aug. 2017*

Awards

· N Innovation Award, 2nd prize in R&D track @ NAVER *Jan. 2023*
· Honorable Mention Award, SR challenge on NTIRE workshop @ CVPR 2018 *June 2018*

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