Sohyun Lee

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Cheongam-Ro 77, POSTECH, Pohang-Si, South Korea (37673)

Education

POSTECH — Pohang, South Korea
Integrated M.S. · Ph.D. in Artificial Intelligence — *September 2020 – Present*

- Supervised by Prof. Suha Kwak in the Computer Vision Lab.
- Research Interest: robust recognition in adverse visual conditions, domain adaptation, domain generalization.

POSTECH — Pohang, South Korea
B.S. in Mechanical Engineering — *March 2015 – Aug. 2020*

Publications

International

[1] Sehyun Hwang, **Sohyun Lee**, Hoyoung Kim, Minhyeon Oh, Jungseul Ok, and Suha Kwak
Active Learning for Semantic Segmentation with Multi-class Label Query
Conference on Neural Information Processing Systems (**NeurIPS**), 2023

[2] **Sohyun Lee***, Jaesung Rim*, Boseung Jeong, Geonu Kim, ByungJu Woo, Haechan Lee, Sunghyun Cho, and Suha Kwak (*equal contribution)
Human Pose Estimation in Extremely Low-light Conditions
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023

[3] Sehyun Hwang, **Sohyun Lee**, Sungyeon Kim, Jungseul Ok, and Suha Kwak
Combating Label Distribution Shift for Active Domain Adaptation
European Conference on Computer Vision (**ECCV**), 2022

[4] **Sohyun Lee**, Taeyoung Son, and Suha Kwak
FIFO: Learning Fog-invariant Features for Foggy Scene Segmentation
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022
(**Oral, Best Paper Finalist**)

[5] Juwon Kang, **Sohyun Lee**, Namyup Kim, and Suha Kwak
Style Neophile: Constantly Seeking Novel Styles for Domain Generalization
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022

Domestic

[1] **Sohyun Lee**, Taeyoung Son, and Suha Kwak
안개가 낀 장면의 의미론적 분할을 위한 안개에 불변하는 특징 학습
Workshop for Image Processing and Image Understanding (IPIU), 2022

[2] Juwon Kang, **Sohyun Lee**, Namyup Kim, and Suha Kwak
지속적인 새로운 스타일 생성을 통한 도메인 일반화 방법
Workshop for Image Processing and Image Understanding (IPIU), 2022

[3] Sehyun Hwang, **Sohyun Lee**, Sungyeon Kim, Jungseul Ok, and Suha Kwak
오프라인 능동 도메인 적응 학습
Workshop for Image Processing and Image Understanding (IPIU), 2022

Professional Services

- **Reviewer,** IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)
- **Reviewer,** International Conference on Learning Representations (**ICLR**), 2024
- **Reviewer,** Conference on Neural Information Processing Systems (**NeurIPS**), 2023
- **Reviewer,** International Conference on Computer Vision (**ICCV**), 2023
- **Reviewer,** IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022-2023
- **Reviewer,** IEEE/CVF Winter Conference on Applications of Computer Vision (**WACV**), 2023
- **Reviewer,** Asian Conference on Computer Vision (**ACCV**), 2022
- **Reviewer,** European Conference on Computer Vision (**ECCV**), 2022

Invited Talk

- *FIFO: Learning Fog-invariant Features for Foggy Scene Segmentation*, Vision for all Seasons workshop in CVPR, New Orleans, 2022

Press

- April 28, 짙은 안개 껴도 사람·사물 뚜렷이 식별하는 AI 개발, 동아사이언스
- April 28, 짙은 안개 속에서도 외부환경 정확히 인식하는 AI 개발, 매일경제
- April 28, 한치 앞도 안 보이는 안개 속에서도 문제없는 자율주행차 나온다, 서울신문
- April 28, 자율주행車 상용화 앞당긴다… 포스텍 연구진, 안개에도 정확한 영상인식 AI기술 개발, 영남일보
- April 28, 포스텍 곽수하 교수팀 안개 낀 날에도 정확히 동작하는 영상인식 AI 기술 개발, 뉴스1
- April 28, 안개 낀 날씨에도 정확히 작동 영상인식 AI 개발, YTN사이언스

Awards

- **Excellence Award at 3rd POSTECH Research Performance Contest**, POSTECH, 2023
- **Grand Prize at BK21 Best Paper Award**, POSTECH GSAI, 2023
- **Qualcomm Innovation Fellowship 2022 Winner**, Qualcomm Korea Corp., 2022
    - FIFO: Learning Fog-invariant Features for Foggy Scene Segmentation (CVPR 2022, Best Paper Finalist)
    - Style Neophile: Constantly Seeking Novel Styles for Domain Generalization (CVPR 2022)
    - Combating Label Distribution Shift for Active Domain Adaptation (ECCV 2022)
- **CVPR Best Paper Finalist**, 2022
    - Awarded to Top 0.4% (33 of 8161 papers)
    - FIFO: Learning Fog-invariant Features for Foggy Scene Segmentation
- **Gold Prize at IPIU Best Paper Award**, 2022
- **POSTECH Creative Self-Research Scholarship**, 2020