

SohyunLee

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EDUCATION

POSTECH | *Integrated M.S. · Ph.D.*

Sep. 2020 – Present

- Graduate School of Artificial Intelligence
- Supervised by Prof. Suha Kwak in the Computer Vision Lab.

POSTECH | *B.S.*

March 2015 – Aug. 2020

- Mechanical Engineering

EXPERIENCE

Research Collaboration | *ETH Zürich*

May 2025 – Present

- Working with Prof. Konrad Schindler and Dr. Christos Sakaridis

Visiting Researcher | *ETH Zürich*

May 2025 – Aug. 2025

- Host: Prof. Konrad Schindler, Dr. Christos Sakaridis

Research Collaboration | *Google Zürich*

Oct. 2024 – Present

- Working with Lukas Hoyer

Visiting Researcher | *Tübingen AI Center, University of Tübingen*

Mar. 2024 – May 2024

- Host: Prof. Seong Joon Oh

Undergraduate Intern | *Innovative Medical Solution Lab, POSTECH*

June 2019 – Sep. 2019

- Researched on mental stress detection.

Undergraduate Intern | *Industrial AI Lab, POSTECH*

June 2018 – June 2019

- Researched on lesion detection in capsule endoscopy.

Engineering Intern | *Doosan Heavy Industries*

June 2017 – July 2017

- Designed a gas turbine compressor.

PUBLICATIONS

International

- [1] **Sohyun Lee**, Yeho Gwon, Lukas Hoyer, Konrad Schindler, Christos Sakaridis, and Suha Kwak
Robust Promptable Video Object Segmentation
Under review, 2026
- [2] **Sohyun Lee**, Nayeong Kim, Juwon Kang, Seong Joon Oh, and Suha Kwak
TestDG: Test-time Domain Generalization for Continual Test-time Adaptation
Under review, 2026
- [3] **Sohyun Lee**, Yeho Gwon, Lukas Hoyer, and Suha Kwak
GaRA-SAM: Robustifying Segment Anything Model with Gated-Rank Adaptation
Conference on Neural Information Processing Systems (**NeurIPS**), 2025
- [4] **Sohyun Lee**, Namyup Kim, Sungyeon Kim, and Suha Kwak
FREST: Feature RESToration for Semantic Segmentation under Multiple Adverse Conditions
European Conference on Computer Vision (**ECCV**), 2024

- [5] 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
- [6] **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
- [7] 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
- [8] **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
(Best Paper Finalist, Oral Presentation)
- [9] 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

Ongoing Project

- [1] Seungwoo Yoon*, Dohyun Kang*, Eunsue Choi, **Sohyun Lee**, Hyeonsu Heo, Minho Choi, Dongha Shin, Seoyeon Kim, Suha Kwak, Arka Marjumdar, Junsuk Rho[†], Seung-Hwan Baek[†]
Project on learned metalens for obstruction-free broadband imaging

ACADEMIC SERVICES

- **Organizer:** Women in Computer Vision Workshop (WiCV) at ACCV 2024.
- **Journal Reviewer:** TPAMI
- **Conference Reviewer:** CVPR, ICLR, ICML, NeurIPS, ICCV, ECCV, WACV, AAAI, ACCV

HONORS & AWARDS

- **CVPR Best Paper Finalist, 2022**
 - Awarded to Top 0.4% (33 of 8161 papers)
 - FIFO: Learning Fog-invariant Features for Foggy Scene Segmentation
- **Qualcomm Innovation Fellowship Winner (3 times)**, Qualcomm Korea Corp., 2022
 - FIFO: Learning Fog-invariant Features for Foggy Scene Segmentation (CVPR 2022)
 - Style Neophile: Constantly Seeking Novel Styles for Domain Generalization (CVPR 2022)
 - Combating Label Distribution Shift for Active Domain Adaptation (ECCV 2022)
- **Excellence Prize at BK21 Best Paper Award**, POSTECH GSAI, 2024
- **POSTECHIAN fellowship awards**, POSTECH, 2023

- Excellence Award at 3rd POSTECH Research Performance Contest, POSTECH, 2023
- Grand Prize at BK21 Best Paper Award, POSTECH GSAI, 2023
- Gold Prize at IPIU Best Paper Award, 2022
- POSTECH Creative Self-Research Scholarship, 2020

INVITED TALK

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

PATENTS

- U.S. Patent 12,394,084 B2, "Method and Apparatus for Learning Human Pose Estimation in Low-Light Conditions". Granted.
- U.S. Patent Application Publication US 2023/0419654 A1, "Method and Device for Learning Fog-Invariant Feature". Pending.

TEACHING ASSISTANT

- Computer Vision, POSTECH
- Reinforcement Learning, POSTECH
- Discrete Mathematics, POSTECH

PRESS

- April 28, 짙은 안개 꺼도 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 광수하 교수팀 안개 낀 날에도 정확히 동작하는 영상인식 AI 기술 개발, 뉴스1
- April 28, 안개 낀 날씨에도 정확히 작동 영상인식 AI 개발, YTN사이언스