

# Sehyun Hwang

POSTDOCTORAL RESEARCHER @ COMPUTER VISION LAB.

Computer Vision Laboratory, POSTECH, 77 Cheongam-ro, Pohang, Geongbuk, South Korea 37673

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## Education

### POSTECH (Pohang University of Science and Technology)

INTEGRATED M.S · PH.D STUDENT IN COMPUTER SCIENCE AND ENGINEERING

- Advisor: Prof. Suha kwak
- Cumulative GPA: 4.0 / 4.3

Pohang, South Korea

Sep. 2018 - Feb. 2025

### DGIST (Daegu Gyeongbuk Institute of Science and Technology)

B.S. IN SCHOOL OF UNDERGRADUATE STUDIES

- Cumulative GPA: 3.9 / 4.3

Daegu, South Korea

Mar. 2014 - Sep. 2018

## Experience

### Computer Vision Lab, POSTECH

POSTDOCTORAL RESEARCHER

- Participate in research projects about active learning.

Pohang, South Korea

Feb. 2025 - Present

### Health Futures Team, Microsoft Research Lab Cambridge

RESEARCH INTERN

- Mentor: Maximilian Ilse
- Participate in research projects about tube segmentation on chest X-ray.

Cambridge, UK

Jul. 2024 - Sep. 2024

### Scalable Trustworthy AI Lab, University of Tübingen

VISITING RESEARCHER

- Inviter: Prof. Seong Joon Oh
- Participate in research projects about active learning for OOD.

Tübingen, Germany

Mar. 2024 - May. 2024

### Computer Vision Lab, POSTECH

RESEARCH ASSISTANT

- Participate in research projects about active learning.

Pohang, South Korea

Mar. 2018 - Feb. 2025

### Optical Fiber Sensor Group, Nanyang Technological University (NTU)

RESEARCH INTERNSHIP

- Advisor: Prof. Chi Chiu Chan.
- A Study on Glucose and Gas Detection Sensor using Optical Fiber.

Sigapore

June. 2016 - August. 2016

### Computational Material Design Lab, DGIST

RESEARCH INTERNSHIP

- Advisor: Prof. Joongoo Kang.
- A Theoretical modeling on Carbon nanotube, Graphene based on quantum mechanics.

Daegu, South Korea

Jun. 2015 - July. 2015

## Publication

### Enhancing Cost Efficiency in Active Learning with Candidate Set Query

YEHO GWON\*, SEHYUN HWANG\*, HOYOUNG KIM, JUNGSEUL OK, AND SUHA KWAK (\*EQUAL CONTRIBUTION)  
arxiv preprint

2025

### Active Label Correction for Semantic Segmentation with Foundation Models

HOYOUNG KIM, SEHYUN HWANG, SUHA KWAK, AND JUNGSEUL OK  
International Conference on Machine Learning (ICML)

2024

- **Extreme Point Supervised Instance Segmentation** 2024  
HYEONJUN LEE, SEHYUN HWANG, AND SUHA KWAK  
*IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*
- **Active Learning for Semantic Segmentation with Multi-class Label Query** 2023  
SEHYUN HWANG, SOHYUN LEE, HOYOUNG KIM, MINHYEON OH, JUNGSEUL OK, AND SUHA KWAK  
*Neural Information Processing Systems (NeurIPS)*
- **Adaptive Superpixel for Active Learning in Semantic Segmentation** 2023  
HOYOUNG KIM, MINHYEON OH, SEHYUN HWANG, JUNGSEUL OK, AND SUHA KWAK  
*International Conference on Computer Vision (ICCV)*
- **Learning Debiased Classifier with Biased Committee** 2022  
NAYEONG KIM, SEHYUN HWANG, SUNGSOO AHN, JAESIK PARK, AND SUHA KWAK  
*Conference on Neural Information Processing Systems (NeurIPS)*
- **Combating Label Distribution Shift for Active Domain Adaptation** 2022  
SEHYUN HWANG, SOHYUN LEE, SUNGYEON KIM, JUNGSEUL OK, AND SUHA KWAK  
*European Conference on Computer Vision (ECCV)*
- **Learning to Detect Semantic Boundaries with Image-Level Class Labels** 2022  
NAMYUP KIM\*, SEHYUN HWANG\*, AND SUHA KWAK (\*EQUAL CONTRIBUTION)  
*International Journal of Computer Vision (IJCV)*

## Fellowships and Awards

2025	<b>Excellence Award at BK21 Paper Award</b> , POSTECH GSAI	Pohang, S. Korea
2024	<b>Best Award at BK21 Paper Award</b> , POSTECH GSAI	Pohang, S. Korea
2023	<b>POSTECHIAN Fellowship Award</b> , POSTECH	Pohang, S. Korea
2023	<b>Excellence Award at BK21 Paper Award</b> , POSTECH CSE	Pohang, S. Korea
2022	<b>Qualcomm Innovation Fellowship South Korea</b> , Qualcomm	Seoul, S. Korea
2022	<b>Gold Prize at IPIU Best Paper Award</b> , IPIU	Jeju, S. Korea
2020	<b>The Honorable Mention, Samsung Humantech Thesis Prize</b> , Samsung Electronics	Suwon, S. Korea
2016	<b>Academic Excellence Scholarship</b> , DGIST	Daegu, S. Korea

## Reviewer Service

- IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)
- Conference on Computer Vision and Pattern Recognition (**CVPR**): 2023-2025
- International Conference on Learning Representations (**ICLR**): 2025
- European Conference on Computer Vision (**ECCV**): 2024
- International Conference on Machine Learning (**ICML**): 2024
- Asian Conference on Computer Vision (**ACCV**): 2022, 2024
- Conference on Neural Information Processing Systems (**NeurIPS**): 2022-2023
- International Conference on Computer Vision (**ICCV**): 2023
- Winter Conference on Applications of Computer Vision (**WACV**): 2022

## Teaching Experience

- **Teaching Assistant in External Courses**  
SK Hynix, Machine Learning Training Course (Nov. 2019)
- **Teaching Assistant in POSTECH**  
CSED261, Discrete Math. for Computer Science (Spring 2021)  
AIGS538, Deep Learning (Spring 2021)  
AIGS539, Computer Vision (Fall 2021)