Sehyun **Hwang**

PH.D. STUDENT @ COMPUTER VISION LAB.

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Education

POSTECH (Pohang University of Science and Technology)   *Pohang, South Korea*
INTEGRATED M.S · PH.D STUDENT IN COMPUTER SCIENCE AND ENGINEERING   *Sep. 2018 - Present*
- Advisor: Prof. Suha kwak
- Cumulative GPA: 4.0 / 4.3

DGIST (Daegu Gyeongbuk Institute of Science and Technology)   *Daegu, South Korea*
B.S. IN SCHOOL OF UNDERGRADUATE STUDIES   *Mar. 2014 - Sep. 2018*
- Cumulative GPA: 3.9 / 4.3

Experience

Health Futures Team, Microsoft Research Lab Cambridge   *Cambridge, UK*
RESEARCH INTERN   *Jul. 2024 - Sep. 2024*
- Mentor: Maximilian Ilse
- Participate in research projects about tube segmentation on chest X-ray.

Scalable Trustworthy AI Lab, University of Tübingen   *Tübingen, Germany*
VISITING RESEARCHER   *Mar. 2024 - May. 2024*
- Inviter: Prof. Seong Joon Oh
- Participate in research projects about active learning for OOD.

Computer Vision Lab, POSTECH   *Pohang, South Korea*
RESEARCH ASSISTANT   *Mar. 2018 - Present*
- Participate in research projects about active learning.

Optical Fiber Sensor Group, Nanyang Technological University (NTU)   *Sigapore*
RESEARCH INTERNSHIP   *June. 2016 - August. 2016*
- Advisor: Prof. Chi Chiu Chan.
- A Study on Glucose and Gas Detection Sensor using Optical Fiber.

Computational Material Design Lab, DGIST   *Daegu, South Korea*
RESEARCH INTERNSHIP   *Jun. 2015 - July. 2015*
- Advisor: Prof. Joongoo Kang.
- A Theoretical modeling on Carbon nanotube, Graphene based on quantum mechanics.

Publication

- **Active Label Correction for Semantic Segmentation with Foundation Models**   *2024*
  HOYOUNG KIM, SEHYUN HWANG, SUHA KWAK, AND JUNGSEUL OK
  International Conference on Machine Learning (ICML)

- **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

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

Reviewer Service

- IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)
- International Conference on Learning Representations (**ICLR**): 2025
- European Conference on Computer Vision (**ECCV**): 2024
- International Conference on Machine Learning (**ICML**): 2024
- Conference on Computer Vision and Pattern Recognition (**CVPR**): 2023-2024
- 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)

References

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Jungseul Ok, Ph.D.
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