Sehyun **Hwang**

Postdoctoral researcher @ Computer Vision Lab.

Computer Vision Laboratory, DGIST, 333 Techno Jungang-daero, Daegu, 42988, Republic of Korea

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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 - Feb. 2025*

- 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

Computer Vision Lab, DGIST — *Daegu, South Korea*

Postdoctoral researcher — *Aug. 2025 - Present*

- Conduct research on designing diffusion policy for embodied AI control.

Computer Vision Lab, POSTECH — *Pohang, South Korea*

Postdoctoral researcher — *Feb. 2025 - May. 2025*

- Conduct research on efficient image tokenization for compact and discrete visual representations.

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.

Publication

- **Enhancing Cost Efficiency in Active Learning with Candidate Set Query** — *2025*
  Yeho Gwon*, Sehyun Hwang*, Hoyoung Kim, Jungseul Ok, and Suha Kwak (*equal contribution)
  Transactions on Machine Learning Research (TMLR)

- **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

2025	**Excellence Award at BK21 Paper Award** , POSTECH GSAI	*Pohang, S. Korea*
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**)
- Conference on Computer Vision and Pattern Recognition (**CVPR**): 2023-2025
- International Conference on Learning Representations (**ICLR**): 2025
- International Conference on Machine Learning (**ICML**): 2024-2025
- International Conference on Computer Vision (**ICCV**): 2023, 2025
- European Conference on Computer Vision (**ECCV**): 2024
- Conference on Neural Information Processing Systems (**NeurIPS**): 2023
- Asian Conference on Computer Vision (**ACCV**): 2024

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)