

Youngtaek Oh

PhD Student, Electrical Engineering, KAIST.

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RESEARCH INTEREST

My research interest aims to build robust recognition system for image and video understanding under limited and/or biased data. Towards this goal, I have been working on data-efficient learning techniques in image and video domain. In addition, I have interest in vision and language models, specifically for enhancing visual understanding tasks.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST) Ph.D. in Electrical Engineering; Co-advisors: In So Kweon and Junmo Kim	Daejeon, South Korea Sep. 2021 – Present
Korea Advanced Institute of Science and Technology (KAIST) M.S. in Electrical Engineering; Advisor: In So Kweon	Daejeon, South Korea Mar. 2019 – Feb. 2021
Korea University B.S. in Electrical Engineering; GPA: 4.40/4.5	Seoul, South Korea Mar. 2015 – Feb. 2019

WORK EXPERIENCE

LG AI Research Research Internship	Seoul, South Korea Sep. 2023 – Feb. 2024
Korea Advanced Institute of Science and Technology (KAIST) Researcher, Robotics and Computer Vision Lab.	Daejeon, South Korea Mar. 2021 – Aug. 2021

PUBLICATION

- [C6] Preserving Multi-Modal Capabilities of Pre-trained VLMs for Improving Visio-Linguistic Compositionality
Youngtaek Oh, Jae Won Cho, Dong-Jin Kim, In So Kweon, Junmo Kim
◦ Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2024.
- [W1] Exploring the Spectrum of Visio-Linguistic Compositionality and Recognition
Youngtaek Oh, Pyunghwan Ahn, Jinhyung Kim, Gwangmo Song, Soonyoung Lee, In So Kweon, Junmo Kim
◦ *CVPR Workshop on What is Next in Multimodal Foundation Models? (MMFM2)*, 2024
- [J1] Empirical Study on Using Adapters for Debaised Visual Question Answering
Jae Won Cho, Dawit Mureja Argaw, **Youngtaek Oh**, Dong-Jin Kim, In So Kweon
◦ *Computer Vision and Image Understanding (CVIU)*, 2023.
- [C5] Self-Sufficient Framework for Continuous Sign Language Recognition
Youngjoon Jang, **Youngtaek Oh**, Jae Won Cho, Myungchul Kim, Dong-Jin Kim, In So Kweon, Joon Son Chung
◦ *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2023.
- [C4] Signing Outside the Studio: Benchmarking Background Robustness for Continuous Sign Language Recognition
Youngjoon Jang, **Youngtaek Oh**, Jae Won Cho, Dong-Jin Kim, Joon Son Chung, In So Kweon
◦ British Machine Vision Conference (**BMVC**), 2022.
- [C3] DASO: Distribution-Aware Semantics-Oriented Pseudo-label for Imbalanced Semi-Supervised Learning
Youngtaek Oh, Dong-Jin Kim, In So Kweon
◦ Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022.
- [C2] KSL-Guide: A Large-scale Korean Sign Language Dataset Including Interrogative Sentences for Guiding the Deaf and Hard-of-Hearing
Soomin Ham, Kibaek Park, Youngjoon Jang, **Youngtaek Oh**, Seokmin Yun, Sukwon Yoon, Chang Jo Kim, Han-Mu Park, In So Kweon
◦ International Conference on Automatic Face and Gesture Recognition (**FG**), 2021.
- [C1] SideGuide: A Large-scale Sidewalk Dataset for Guiding Impaired People
Kibaek Park*, **Youngtaek Oh***, Soomin Ham*, Kyungdon Joo*, Hyokyung Kim, Hyoyoung Kum, In So Kweon
◦ International Conference on Intelligent Robots and Systems (**IROS**), 2020.

HONORS AND AWARDS

Top 3% Recognition Certificates, ICASSP 2023	June 2023
2nd place in NICE Challenge (\$5000), NICE Workshop at CVPR 2023	May 2023
Finalist, Qualcomm Innovation Fellowship Korea	Nov. 2022
Outstanding Reviewer Award, ECCV 2022	Oct. 2022
National Scholarship for Science and Engineering	Mar. 2017 - Feb. 2019

ACADEMIC SERVICE

Conference Reviewer

Conference on Computer Vision and Pattern Recognition (CVPR)	2022 – 2024
European Conference on Computer Vision (ECCV)	2022,2024
International Conference on Computer Vision (ICCV)	2023
Conference on Neural Information Processing Systems (NeurIPS)	2023,2024
International Conference on Learning Representations (ICLR)	2024,2025
Winter Conference on Applications of Computer Vision (WACV)	2024,2025
International Conference on Acoustics, Speech, and Signal Processing (ICASSP)	2024,2025
AAAI Conference on Artificial Intelligence (AAAI)	2025

Journal Reviewer

International Journal of Computer Vision (IJCV)	2024
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