Dongwon Kim

@ kdwon@postech.ac.kr | ⊕ https://kdwonn.github.io

Cheongam-Ro 77, POSTECH, Pohang-Si, South Korea (37673)

RESEARCH OBJECTIVE

My work addresses the diverse challenges of multi-modal learning by harnessing object-centric representations. I have worked on and will continue to explore this approach to seamlessly align visual and language modalities, effectively resolving current problems of multi-modal AI: generalization, sample efficiency, and ambiguity.

EDUCATION

POSTECH   Pohang, South Korea

Integrated M.S. and Ph.D. in Computer Science and Engineering;   *Sep 2019 − Mar 2025 (Expected)*

- Supervised by Prof. Suha Kwak in the Computer Vision Lab.
- Research interest: Computer vision, multi-modal learning, representation learning, metric learning

POSTECH   Pohang, South Korea

B.S. in Computer Science and Engineering   *Mar 2015 − Aug 2019*

PUBLICATIONS

[1] ***Shatter and Gather: Learning Referring Image Segmentation with Text Supervision*** | arXiv
Dongwon Kim*, Namyup Kim*, Cuiling Lan, and Suha Kwak
IEEE/CVF International Conference on Computer Vision (ICCV), Oct 2023

[2] ***Improving Cross-Modal Retrieval With Set of Diverse Embeddings*** | arXiv
Dongwon Kim, Namyup Kim, and Suha Kwak
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Jun 2023
Highlight (Top 2.5% = 235/9155)

[3] ***ReSTR: Convolution-Free Referring Image Segmentation Using Transformers*** | arXiv
Namyup Kim, **Dongwon Kim**, Cuiling Lan, Wenjun Zeng, and Suha Kwak
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Jun 2022

[4] ***Self-Taught Metric Learning Without Labels*** | arXiv
Sungyeon Kim, **Dongwon Kim**, Minsu Cho, and Suha Kwak
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Jun 2022

[5] ***Embedding Transfer With Label Relaxation for Improved Metric Learning*** | arXiv
Sungyeon Kim, **Dongwon Kim**, Minsu Cho, and Suha Kwak
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Jun 2021

[6] ***Proxy Anchor Loss for Deep Metric Learning*** | arXiv
Sungyeon Kim, **Dongwon Kim**, Minsu Cho, and Suha Kwak
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Jun 2020

AWARDS & ACHIEVEMENTS

POSTECHIAN fellowship, POSTECH, 2023

BK21 Best Paper Award, POSTECH GSAI, 2023
- Self-Taught Metric Learning without Labels (CVPR 2022)

Qualcomm Innovation Fellowship Winner, Qualcomm Korea Corp., 2022
- Self-Taught Metric Learning without Labels (CVPR 2022)
- ReSTR: Convolution-free Referring Image Segmentation Using Transformers (CVPR 2022)

NAVER $\times$ POSTECH AI DAY The 2nd and 3rd Prize, 2022

- ReSTR: Convolution-free Referring Image Segmentation Using Transformers (CVPR 2022)

Qualcomm Innovation Fellowship Winner, Qualcomm Korea Corp., 2021

- Embedding Transfer with Label Relaxation for Improved Metric Learning (CVPR 2021)

IPIU Best Paper Award, 2021

- Embedding Transfer with Label Relaxation for Improved Metric Learning (CVPR 2021)

National Science & Technology Scholarship, Korea Student Aid Foundation, 2017-2018

Jigok Scholarship, POSTECH, 2015-2016

Professional Services

Reviewer, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI): 2022, 2023

Reviewer, IEEE/CVF International Conference on Computer Vision (ICCV): 2023

Reviewer, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR): 2022, 2023

Reviewer, European Conference on Computer Vision (ECCV): 2022

Reviewer, Winter Conference on Applications of Computer Vision (WACV): 2023

Reviewer, Asian Conference on Computer Vision (ACCV): 2022