ZEDONG WANG

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EDUCATION

Huazhong University of Science and Technology (HUST), China

B.Eng. in Electronic and Information Engineering

- Graduation Thesis: Efficient Vision Backbone Architecture Design. Grade: 92/100 (full score in Novelty sub-term)
- Undesirable overall GPA but high in all AI-related core courses (90.0/100): Introduction to Green Communications (95/100), Engineering Training (94/100), Multimedia Retrieval (93/100), Graduation Thesis (92/100), Software Project (92/100), Principles & Applications of Sensors (90/100), Python Programming (87/100), Capstone Project in Machine Intelligence (87/100), Deep Learning & Computer Vision (87/100), Machine Learning (85/100), etc.

RESEARCH EXPERIENCE & PROJECTS

The Hong Kong University of Science and Technology (HKUST)

Research on Multi-modal and Multi-task Scene Understanding.

Chair Prof. Stan Z. Li's Lab, Westlake University

Research on Representation Learning and AI for Science.

Prof. Xinggang Wang's Lab, School of EIC, HUST

Research on Few-shot Semantic Segmentation.

MMLab, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences

Research on Semantic Segmentation and Text Spotting.

Open-Source Projects for Deep Learning and Computer Vision in PyTorch

• OpenMixup: Open-Source Toolbox and Benchmark for Mixup-based Visual Recognition. • 557 stars, 60 forks

• MogaNet: Open-Source Official Implementation and Weights of MogaNet. (ICLR 2024). 115 stars, 12 forks

${f SELECTED~PUBLICATIONS}$ (*: Equal Contribution; †: Corresponding Author)

MogaNet: Multi-order Gated Aggregation Network

Siyuan Li*, Zedong Wang*, Zicheng Liu, Cheng Tan, Haitao Lin, Di Wu, Zhiyuan Chen, Jiangbin

Zheng, Stan Z. Li[†]. • Code

SemiReward: A General Reward Model for Semi-supervised Learning

Siyuan Li*, Weiyang Jin*, **Zedong Wang**, Fang Wu, Zicheng Liu, Cheng Tan, Stan Z. Li[†]. O Code

OpenSTL: A Comprehensive Benchmark of Spatio-Temporal Predictive Learning

Cheng Tan*, Siyuan Li*, Zhangyang Gao, Wenfei Guan, Zedong Wang, Zicheng Liu, Lirong Wu,

Stan Z. Li[†]. Code

Masked Modeling for Self-supervised Representation Learning on Vision and Beyond

Siyuan Li*, Luyuan Zhang*, Zedong Wang, Di Wu, Lirong Wu, Zicheng Liu, Jun Xia, Cheng

Tan, Yang Liu, Baigui Sun, Stan Z. Li[†]. • Code

OpenMixup: Open Mixup Toolbox and Benchmark for Visual Representation Learning

Siyuan Li*, **Zedong Wang***, Zicheng Liu, Di Wu, Stan Z. Li[†]. Code

Boosting Discriminative Visual Representation Learning with Scenario-Agnostic Mixup

Siyuan Li*, Zicheng Liu*, **Zedong Wang***, Di Wu, Zihan Liu, Stan Z. Li[†]. Code

Switch EMA: A Free Lunch for Better Flatness and Sharpness

Siyuan Li*, Zicheng Liu*, Juanxi Tian*, Ge Wang*, Zedong Wang, Weiyang Jin, Di Wu, Cheng

Tan, Tao Lin, Yang Liu, Baigui Sun, Stan Z. Li[†].

Sep. 2019 - Jun. 2023

Supervisor: Prof. Xinggang Wang

Mar. 2024 - Present

Advisor: Prof. Dan Xu

Jul. 2022 - Mar. 2024

Advisor: Chair Prof. Stan Z. Li

Sep. 2021 - Jul. 2022

Advisor: Prof. Xinggang Wang

Jun. 2021 - Sep. 2021

Advisor: Dr. Bin Fu

Jul. 2021 - Present

ICLR 2024

ICLR 2024

NeurIPS 2023

Arxiv 2023

Arxiv 2022

Arxiv 2022

Arxiv 2024

RESEARCH SERVICES

Program Committee Member / Conference Reviewer

Jul. 2023 - Present

- International Conference on Learning Representations (ICLR), 2024.
- International Conference on Machine Learning (ICML), 2024.
- European Conference on Computer Vision (ECCV), 2024.
- IAPR International Conference on Pattern Recognition (ICPR), 2024.

MISCELLANEOUS

Programming languages: Python, C, Matlab, LaTeX.

Deep Learning Frameworks: PyTorch, PyTorch Lightning.

Operating Systems: Linux (Ubuntu, CentOS), MacOS, Windows.

Languages: Chinese (native); English (fluent), IELTS 7.5 (8.5, 6.5, 7, 7) in 2023, CET-4: 646 in 2020.

ABOUT ME

I am Zedong Wang, a Hong Kong-born AI researcher. I am currently a research intern at The Hong Kong University of Science and Technology (HKUST), under the supervision of Prof. Dan Xu. I was a visiting student at Westlake University, under the supervision of Chair Prof. Stan Z. Li (IEEE Fellow, IAPR Fellow). I received my B.Eng. degree in Electronic and Information Engineering from Huazhong University of Science and Technology (HUST) in 2023, under the supervision of Prof. Xinggang Wang. My research interests center around Computer Vision, Multi-modal Learning, Multi-task Scene Understanding. My overarching research goal is to advance principled and unified (visual) representation learning that can benefit a diverse range of real-world applications. Please visit my Homepage for more details and the latest update!