WANG, ZE DONG

jacky1128.github.io Google Scholar (H-index:7; Citation:330) X GitHub (★1.8K+) zedong.wang@connect.ust.hk

EDUCATION

The Hong Kong University of Science and Technology (HKUST) February 2025 - June 2029
Ph.D. in Computer Science and Engineering *Kowloon, Hong Kong*

- *Advisor:* Prof. **Dan Xu**
- *Research Topics:* Multi-task and Multi-modal Learning

Huazhong University of Science and Technology September 2019 - June 2023
B.Eng. in Electronic and Information Engineering *Wuhan, China*

- *Advisor:* Prof. **Xinggang Wang**
- *Thesis:* Efficient ConvNet-based Vision Backbone for Multiple Tasks. (92/100, full grade in NOVELTY sub-term)
- *AI Relevant Courses (90.0/100)*: Intro to Green Communication (95), Engineering Training (94), Multimedia Retrieval (93), Undergrad Thesis (92), Software Project (92), Principles and Applications of Sensors (90), Python Programming (87), Capstone Project (87), Deep Learning and Computer Vision (87), Machine Learning (85).

SELECTED PUBLICATIONS (*: EQUAL CONTRIBUTION; †: CORRESPONDING AUTHOR)

Taming LLMs by Scaling Learning Rates with Gradient Grouping **arXiv 2025**
Siyuan Li*, Juanxi Tian*, **Zedong Wang***, Xin Jin, Zicheng Liu, Wentao Zhang, Dan Xu†
Preprint, Under-review.

MergeVQ: A Unified Framework for Visual Generation & Representation with Token Merging **CVPR 2025**
Siyuan Li*, Luyuan Zhang*, **Zedong Wang**, Juanxi Tian, Qingsong Xie, Haoqian Wang, Zhen Lei†
*IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2025.* ↑ HF Daily Top-1

Unveiling the Backbone-Optimizer Coupling Bias in Visual Representation Learning **arXiv 2024**
Siyuan Li*, Juanxi Tian*, **Zedong Wang***, Luyuan Zhang, Zicheng Liu, Weiyang Jin, Stan Z. Li† Cited by **1**
Preprint, Under-review. ↑ HF Page

A Survey on Mixup Augmentations and Beyond **arXiv 2024**
Xin Jin, Hongyu Zhu, Siyuan Li, **Zedong Wang**, Zicheng Liu, Chang Yu, Huafeng Qin, Stan Z. Li† Cited by **5**
Preprint, Under-review.

VQDNA: Unleashing the Power of Vector Quantization for Multi-Species Genomic Sequence Modeling **ICML 2024**
Siyuan Li*, **Zedong Wang***, Zicheng Liu, Cheng Tan, Jiangbin Zheng, Yufei Huang, Stan Z. Li† Cited by **10**
*The Forty-first International Conference on Machine Learning (**ICML**), 2024.*

Short-Long Convolutions Help Hardware-Efficient Linear Attention to Focus on Long Sequences **ICML 2024**
Zicheng Liu, Siyuan Li, Li Wang, **Zedong Wang**, Yunfan Liu, Stan Z. Li† Cited by **6**
*The Forty-first International Conference on Machine Learning (**ICML**), 2024.*

MogaNet: Multi-order Gated Aggregation Network **ICLR 2024**
Siyuan Li*, **Zedong Wang***, Zicheng Liu, Cheng Tan, Haitao Lin, Di Wu, Jiangbin Zheng, Stan Z. Li† Cited by **120**
*The Twelfth International Conference on Learning Representations (**ICLR**), 2024.* **226** stars

SemiReward: A General Reward Model for Semi-supervised Learning **ICLR 2024**
Siyuan Li*, Weiyang Jin*, **Zedong Wang**, Fang Wu, Zicheng Liu, Cheng Tan, Stan Z. Li† Cited by **22**
*The Twelfth International Conference on Learning Representations (**ICLR**), 2024.* Code

OpenSTL: A Comprehensive Benchmark of Spatio-Temporal Predictive Learning **NeurIPS 2023**
Cheng Tan, Siyuan Li, Zhangyang Gao, Wenfei Guan, **Zedong Wang**, Zicheng Liu, Lirong Wu, Stan Z. Li† Cited by **77**
*The Annual Conference on Neural Information Processing Systems (**NeurIPS**), 2023.* **906** stars

OpenMixup: Open Mixup Toolbox and Benchmark for Visual Representation Learning **arXiv 2022**
Siyuan Li*, **Zedong Wang***, Zicheng Liu, Di Wu, Cheng Tan, Stan Z. Li†. Cited by **40**
Preprint, Under-review. **650** stars

Experience & Projects

ZEEKR Intelligent Technology April 2024 - February 2025
Research Intern (HKUST & ZEEKR University-Enterprise Cooperation) *Hangzhou, China*

- *Advisor:* Prof. **Dan Xu**.
- *Topics:* Multi-task Learning in Autonomous Driving.

School of Engineering, Westlake University July 2022 - March 2024
Summer Research Intern (2022), Visiting Student (2022-2024) *Hangzhou, China*

- *Advisor:* Chair Prof. **Stan Z. Li** (IEEE Fellow, IAPR Fellow).
- *Topics:* Visual Representation Learning and AI for Life Science.

HUST Vision Lab, Huazhong University of Science and Technology September 2021 - June 2022
Undergraduate Research Intern, Final Year Project for Bachelor degree *Wuhan, China*

- *Advisor:* Prof. **Xinggang Wang**.
- *Topics:* Few-shot Semantic Segmentation.

SIAT-MMLab, Shenzhen Institute of Advanced Technology, CAS June 2021 - September 2021
Summer Research Intern *Shenzhen, China*

Contributed Open-Source Projects and Libraries: July 2021 - Present

- **OpenMixup**: Open-Source Toolbox and Benchmark for Mixup-based Visual Recognition. **650 stars, 58 forks**
- **OpenSTL**: Open-Source Toolbox and Benchmark for Video Prediction. (**NeurIPS 2023**). **906 stars, 99 forks**
- **MogaNet**: Open-Source Official Implementation and Weights of MogaNet. (**ICLR 2024**). **226 stars, 16 forks**
- **MergeVQ**: Open-Source Official Implementation & Weights of MergeVQ. (**CVPR 2025**). **23 stars, 2 forks**
- **Awesome-Optimizers**: Open-Source Collection of Optimization Algorithms. **10 stars, 3 forks**

Services

Conference Reviewer / PC Member: July 2023 - Present

- International Conference on Learning Representations (**ICLR**), 2025.
- Annual Conference on Neural Information Processing Systems (**NeurIPS**), 2024, 2025.
- International Conference on Machine Learning (**ICML**), 2024, 2025.
- IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2025.
- European Conference on Computer Vision (**ECCV**), 2024.
- AAAI Conference on Artificial Intelligence (**AAAI**), 2025.
- ACM International Conference on Multimedia (**ACM MM**), 2024.
- BMVA The British Machine Vision Conference (**BMVC**), 2024, 2025.

Journal Reviewer: July 2023 - Present

- IEEE Transactions on Knowledge and Data Engineerings (**TKDE**).
- IEEE Transactions on Big Data (**TBD**).

Selected Awards and Honors

Outstanding Reviewer at ACM MM 2024 November 2024
*Rate: **139/X**.*

Outstanding Reviewer at BMVC 2024 November 2024
*Rate: **19.3% (166/860)**.*

Outstanding Reviewer at ECCV 2024 September 2024
*Rate: **2.7% (198/7293)**.*

Miscellaneous

Deep Learning Frameworks: PyTorch, PyTorch Lightning.

Languages: Chinese (native); English (IELTS: 7.5, with L: 8.5, R: 6.5, W: 7.0, S: 7.0, in 2023)