

ZEDONG WANG

🏠 Homepage  Scholar (H-index:4; Citations:118)  Twitter (X)  GitHub (Ctbr:3; Stars:1.3K+)  jackywang28@outlook.com

EDUCATION

Huazhong University of Science and Technology (HUST)

September 2019 - July 2023

B.Eng. in Electronic and Information Engineering

Advisor: Prof. Xinggang Wang

- **Thesis:** Efficient Convolutional Vision Backbone Architecture Design. **Grade: 92/100** (full score in *Novelty* term).
- **High GPA in all AI-related courses (90.0/100):** Intro to Green Comm. (95/100), Engineering Training (94/100), Multimedia Retrieval (93/100), Thesis (92/100), Software Project (92/100), Principles & Apps of Sensors (90/100), Python (87/100), Capstone Project (87/100), Deep Learning & Computer Vision (87/100), Machine Learning (85/100).

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

A Decade's Battle on the Bias of Vision Backbone and Optimizer

[arXiv 2024](#)

Siyuan Li*, Juanxi Tian*, Zedong Wang*, Luyuan Zhang, Zicheng Liu, Weiyang Jin, Stan Z. Li†

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†

 [Twitter](#)

Accepted at 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†

Accepted at The Forty-first International Conference on Machine Learning (ICML), 2024.

LongVQ: Long Sequence Modeling with Vector Quantization on Structured Memory

[IJCAI 2024](#)

Zicheng Liu, Li Wang, Siyuan Li, Zedong Wang, Haitao Lin, Stan Z. Li†

Accepted at The 33rd International Joint Conference on Artificial Intelligence (IJCAI), 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 **41**

Accepted at The Twelfth International Conference on Learning Representations (ICLR), 2024.

 **148 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 **4**

Accepted at 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 **21**

Accepted at the Annual Conference on Neural Information Processing Systems (NeurIPS), 2023.

 **625 stars**

Switch EMA: A Free Lunch for Better Flatness and Sharpness

[arXiv 2024](#)

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†.

Preprint, Under-review.

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

[arXiv 2023](#)

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

Yang Liu, Baigui Sun, Stan Z. Li†.

Preprint, Under-review.

OpenMixup: Open Mixup Toolbox and Benchmark for Visual Representation Learning

[arXiv 2022](#)

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

Cited by **29**

Preprint, Under-review.

 **583 stars**

Boosting Discriminative Visual Representation Learning with Scenario-Agnostic Mixup

[arXiv 2022](#)

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

Cited by **20**

Preprint, Under-review.

 [Code](#)

EXPERIENCE & PROJECTS

The Hong Kong University of Science and Technology (HKUST)

Research Intern, Incoming Ph.D. Student (25Spring, Verbal Offer)

April 2024 - Present
Hong Kong SAR (Remote)

• Advisor: [Prof. Dan Xu](#).

• Worked on Multi-modal and Multi-task Learning for Autonomous Driving and Beyond.

ZEEKR, GEELY Holding Group (Fortune Global 500)

Research Intern (HKUST & ZEEKR University-Enterprise Cooperation)

April 2024 - Present
Hangzhou, China

• Advisor: [Prof. Dan Xu](#).

• Worked on Multi-task Autonomous Driving Perception.

AI Lab, Research Center for Industries of the Future, Westlake University

Summer Research Intern, Visiting Student

July 2022 - March 2024
Hangzhou, China

• Advisor: [Chair Prof. Stan Z. Li \(IEEE Fellow, IAPR Fellow\)](#).

• Worked on Representation Learning and AI for Science (Genomics).

• Worked on Visual Representation Learning and AI for Science (Genomics).

Huazhong University of Science and Technology

Undergraduate Research Intern, Final Year Project for Bachelor degree

September 2021 - June 2022
Wuhan, China

• Advisor: [Prof. Xinggang Wang](#).

• Worked on Few-shot Semantic Segmentation.

MMLab, Shenzhen Institute of Advanced Tech., Chinese Academy of Sciences

Summer Research Intern




June 2021 - September 2021
Shenzhen, China

• Advisor: [Dr. Bin Fu](#).

• Worked on Semantic Segmentation and Text Spotting.

Contributed Open-Source Projects for Deep Learning and Computer Vision

Jul. 2021 - Present

- [OpenMixup](#): Open-Source Toolbox and Benchmark for Mixup-based Visual Recognition.  **583 stars, 60 forks**
- [OpenSTL](#): Open-Source Toolbox and Benchmark for Video Prediction. ([NeurIPS 2023](#)).  **625 stars, 99 forks**
- [MogaNet](#): Open-Source Official Implementation and Weights of MogaNet. ([ICLR 2024](#)).  **148 stars, 13 forks**

SERVICES

Program Committee Member / Conference Reviewer

Jul. 2023 - Present

- International Conference on Learning Representations ([ICLR](#)), 2024, TinyPapers.
- Conference on Neural Information Processing Systems ([NeurIPS](#)), 2024, Dataset and Benchmark Track.
- International Conference on Machine Learning ([ICML](#)), 2024.
- European Conference on Computer Vision ([ECCV](#)), 2024.
- ACM International Conference on Multimedia ([ACM MM](#)), 2024.
- BMVA The British Machine Vision Conference ([BMVC](#)), 2024.
- IAPR International Conference on Pattern Recognition ([ICPR](#)), 2024.

Membership

Jul. 2023 - Present

- China Computer Federation ([CCF](#)), Student Member, 2024-2026.
- China Society of Image and Graphics ([CSIG](#)), Student Member, 2023.

MISCELLANEOUS

Programming Languages: Python, C, MATLAB, LaTeX.

Deep Learning Frameworks: PyTorch, PyTorch Lightning.

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

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

Research Skills: Strong academic writing skills; Strong experience in representation learning, computer vision, efficient network architecture design, and AI for Science applications.