SIYUAN LI

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EDUCATION

Zhejiang University (ZJU) & Westlake University, China | Supervisor: Prof. Stan Z. Li   Sept 2021 - June 2026
PhD Candidate of Computer Science and Technology

Nanjing University (NJU), China | Supervisor: Prof. Jianxin Wu   Sept 2017 - June 2021
Bachelor of Computer Science and Technology

PROJECTS & RESEARCH EXPERIENCE

Paper Publication and Projects during PhD Study   July 2021 - Present

Published **8 first-author** and **6 co-first-author** papers in top-tier conferences or journals (CCF-A / TH-CPL-A), with **2345 citations** (h index 26) in Google Scholar. Interested in foundational research on deep learning and RL/optimization for LLMs/MLLMs. Developed 3 popular open-source projects for computer vision in PyTorch.

- **OpenMixup**: Open mixup toolbox and benchmark for visual representation learning. **657 stars**, **61 forks**
- **OpenSTL**: Open-source project for video prediction benchmarks (NeurIPS, 2023). **1000 stars**, **170 forks**

Bytedance Seed (Internship): Multimodel Post-training   Dec 2025 - Present
Application of the educational problem-solving with Doubao, supervised by Xiangxiang Zhang

Shanghai AI Lab / OPPO AI Center (Cooperation): AIGC and Optimization   April 2025 - Present
Researching in image generation, video understanding, and LLM optimization.

BioMap Research (Internship): Pre-training Biological Foundation Models   Jan 2025 - Nov 2025
Developing large-scale DNA and multi-omics models (7B models with 300B tokens), supervised by **Qirong Yang**.

Alibaba Innovative Research (AIR) Intern): AIGC and Representation Learning   Aug 2023 - Sept 2024
Researching in image generation and supporting AIGC models in **ModelScope**, supervised by **Baigui Sun**.

SELECTED PUBLICATIONS

Representation Learning and Generation (AIGC)

MergeVQ: A Unified Framework for Visual Generation and Representation with Disentangled Token Merging and Quantization   CVPR, 2025
Siyuan Li, Luyuan Zhang, Zedong Wang, Juanxi Tian, Cheng Tan, Zicheng Liu, Chang Yu, Qingsong Xie[†], Haonan Lu, Haoqian Wang, Zhen Lei[†]. ⓞ Code

Architecture-Agnostic Masked Image Modeling – From ViT back to CNN   ICML, 2023
Siyuan Li, Di Wu, Fang Wu, Zelin Zang, Stan Z. Li[†]. ⓞ Code

GenURL: A General Framework for Unsupervised Representation Learning   IEEE TNNLS, 2023
Siyuan Li, Zicheng Liu, Zelin Zang, Di Wu, Zhiyuan Chen, Stan Z. Li[†]. ⓞ Code

DLME: Deep Local-flatness Manifold Embedding   ECCV, 2022
Zelin Zang, **Siyuan Li**, Di Wu, Ge Wang, Lei Shang, Baigui Sun, Hao Li, Stan Z. Li[†]. ⓞ Code

Reinforcement Learning and Optimization for LLMs

MergeMix: A Unified Augmentation Paradigm for Visual and Multi-Modal Understanding   Under Review, 2025
Xin Jin, **Siyuan Li**, Siyong Jian, Kai Yu, Huan Wang[†]. ⓞ Code

Taming LLMs with Gradient Grouping   ACL, 2025
Siyuan Li, Juanxi Tian, Zedong Wang, Xin Jin, Zicheng Liu[†], Wentao Zhang, Dan Xu. ⓞ Code

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[†]. ⓞ Code

Network Architecture and Long-Sequence Modeling

MergeDNA: Context-aware Genome Modeling with Dynamic Tokenization through Token Merging — AAAI, 2026

Siyuan Li, Kai Yu, Anna Wang, Zicheng Liu, Chang Yu, Jingbo Zhou, Qirong Yang, Yucheng Guo, Xiaoming Zhang, Stan Z. Li†. ☉ Code (***Oral, Top 4.5%***)

MogaNet: Multi-order Gated Aggregation Network — ICLR, 2024

Siyuan Li, Zedong Wang, Zicheng Liu, Cheng Tan, Haitao Lin, Di Wu, Zhiyuan Chen, Jiangbin Zheng, Stan Z. Li†. ☉ Code

VQDNA: Unleashing the Power of Vector Quantization for Multi-Species Genomic Sequence Modeling — ICML, 2024

Siyuan Li, Zedong Wang, Zicheng Liu, Di Wu, Cheng Tan, Jiangbin Zheng, Yufei Huang, Stan Z. Li†

Data Augmentations and Data-efficient Learning

Harnessing Hard Mixed Samples with Decoupled Regularizer — NeurIPS, 2023

Zicheng Liu, **Siyuan Li**, Ge Wang, Cheng Tan, Lirong Wu, Stan Z. Li†. ☉ Code

AutoMix: Unveiling the Power of Mixup for Stronger Classifiers (***Oral, Top 2.7%***) — ECCV, 2022

Zicheng Liu, **Siyuan Li**, Di Wu, Zihan Liu, Zhiyuan Chen, Lirong Wu, Stan Z. Li†. ☉ Code

Spatial-Temporal Modeling (Video) Applications

SimVPv2: Towards Simple yet Powerful Spatiotemporal Predictive Learning — TMM, 2025

Cheng Tan, Zhangyang Gao, **Siyuan Li**, Stan Z. Li†. ☉ 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†. ☉ Code

TLPG-Tracker: Joint Learning of Target Localization and Proposal Generation for Visual Tracking — IJCAI, 2020

Siyuan Li, Zhi Zhang†, Ziyu Liu, Anna Wang, Linglong Qiu, Feng Du. ☉ Code

Graph Representation Learning and Dimension Reduction

Discovering the Representation Bottleneck of Graph Neural Networks — IEEE TKDE, 2024

Fang Wu, **Siyuan Li**, Stan Z. Li†. ☉ Code

Invertible Manifold Learning for Dimension Reduction — ECML, 2021

Siyuan Li, Haitao Lin, Zelin Zang, Lirong Wu, Jun Xia, Stan Z. Li†. ☉ Code

SERVICES AND MEMBERSHIPS

Top-tier AI Conference Reviewer or PC Member — 2022 - Present

ICLR (2024-2026), ICML (2022-2025), NeurIPS (2022-2025), NeurIPS-DB (2023-2025), CVPR (2022-2026), ICCV (2023, 2025), ECCV (2022, 2024), AAAI (2022-2026), IJCAI (2023), ACMMM (2022-2025), BMVC (2024-2025), AISTATS (2024-2025), WACV (2022-2026)

Top-tier AI Journal Reviewer — 2023 - Present

IEEE TPAMI, IJCV, IEEE TIP, IEEE TNNLS, IEEE TCSVT, TMLR, NCA

Membership in Associations of Computer Science — 2022 - Present

IEEE Graduate Student Member, IEEE Young Professionals, China Society of Image and Graphics (CSIG Student Member), China Computer Federation (CCF Student Member), ACL Student Membership (2025-2026), AAAI Student Membership (2025-2026), BMVA Student Member

Teaching Assistant and Invited Talk — 2023 - Present

- Teaching Assistant of Deep Learning Course at Westlake University (2024 Spring).
- Invited talk on Modern Convolutional Neural Networks at Chengdu Institute of Computer Application, Chinese Academy of Sciences (2024/03/27).
- Online talk on Convolution Kernel Design and Gated Attention for Modern Convolutional Neural Networks at ShuZiHuanYu Platform (2024/03/12).

Scholarships and Social Awards — 2021 - Present

Westlake University Bode Scholarship (2025), Westlake University Suwu Scholarship (2024)
AAAI'26 Scholarship & Volunteer Award, CVPR'25 BP Participant Award, ICML'24 Financial Aid Award, ICLR'24 Financial Assistance Award