

LEI ZHANG

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EDUCATION

University of California, San Diego

Ph.D. in Computer Science

Advisor: Prof. Julian McAuley

San Diego, USA

Sep. 2024 – Present

Zhejiang University

M.S. in Computer Science

Hangzhou, China

Sep. 2021 – Jun. 2024

South China University of Technology

B.E. in Software Engineering

Canton, China

Sep. 2017 – Jun. 2021

PUBLICATIONS

- **L. Zhang**, J. Zhang, B. Lei, S. Mukherjee, X. Pan, B. Zhao, C. Ding, Y. Li, D. Xu, “Accelerating Dataset Distillation via Model Augmentation,” *CVPR*, 2023 **Highlight**. [PDF](#)
- **L. Zhang**, Z. Wang, X. Dong, Y. Feng, X. Pang, Z. Zhang, K. Ren, “Towards Fairness-aware Adversarial Network Pruning,” *ICCV*, 2023. [PDF](#)
- J. Zhang*, **L. Zhang***, G. Li, C. Wu, “Adversarial Examples for Good: Adversarial Examples Guided Imbalanced Learning,” *ICIP*, 2022. (* equal contribution) [PDF](#)
- J. Zhang, B. Li, J. Xu, S. Wu, S. Ding, **L. Zhang**, C. Wu, “Towards Efficient Data Free Black-box Adversarial Attack,” *CVPR*, 2022. [PDF](#)
- **L. Zhang**, F. Shu, S. Ren, B. Zhao, H. Jiang, C. Xie, “Filter & Align: Leveraging Human Knowledge to Curate Image-Text Data,” *In submission to TMLR*, 2024. [PDF](#)
- F. Shu*, Y. Liao*, L. Zhuo*, C. Xu*, **L. Zhang***, G. Zhang*, H. Shi*, L. Chen, T. Zhong, W. He, S. Fu, H. Li, B. Li, Z. Yu, S. Liu, H. Li, H. Jiang, “LLaVA-MOD: Making LLaVA Tiny Via MOE-Knowledge Distillation” *In submission to ICLR 2025*. (* core members) [PDF](#)
- F. Shu*, **L. Zhang***, H. Jiang, C. Xie, “Audio-visual LLM for Video Understanding,” *Arxiv Preprint*, 2024. (* equal contribution) [PDF](#)
- S. Ren, X. Li, H. Tu, F. Wang, F. Shu, **L. Zhang**, J. Mei, L. Yang, P. Wang, H. Wang, A. Yuille, C. Xie, “Autoregressive Pretraining with Mamba in Vision,” *Arxiv Preprint*, 2024. [PDF](#)
- W. He, S. Fu, M. Liu, X. Wang, W. Xiao, F. Shu, Y. Wang, **L. Zhang**, Z. Yu, H. Li, Z. Huang, L. Gan, H. Jiang, “MARS: Mixture of Auto-Regressive Models for Fine-grained Text-to-image Synthesis,” *Arxiv Preprint*, 2024. [PDF](#)
- W. Zhang, T. Lin, J. Liu, F. Shu, H. Li, **L. Zhang**, W. He, H. Zhou, Z. Lv, H. Jiang, J. Li, S. Tang, Y. Zhuang, “HyperLLaVA: Dynamic Visual and Language Expert Tuning for Multimodal Large Language Models,” *Arxiv Preprint*, 2024. [PDF](#)

EXPERIENCE

Research Assistant

University of California, San Diego.

Sept. 2024 – Present

San Diego, USA

- Supervisor: Prof. Julian McAuley and Prof. Zhijian Liu
- Research focus: Multimodal Large Language Model

Research Intern

University of California, Santa Cruz.

Apr. 2023 – Jun. 2024

Remote

- Supervisor: Prof. Cihang Xie
- Research focus: Vision-Language Learning

Research Intern

Alibaba Group.

May. 2023 – Jun. 2024

Beijing, China

- Research focus: Multimodal Understanding

Reserach Intern*Microsoft Research Asia.*

Dec. 2022 – Feb. 2023

Remote

- Supervisor: Dr. Xun Guo
- Research focus: Text-to-Image with Diffusion Model

ONGOING PROJECTS

*Efficient Multimodal Large Language Models**Sept. 2024 – Present*

- Supervisor: Prof. Zhijian Liu from Nvidia and UCSD, and Prof. Julian McAuley from UCSD.
- Research focus:
 - Multimodal Large Language Models with High Resolution.
 - Learning a Specialist from Multimodal Large Language Models.
 - Data Receipe in Training Multimodal Large Language Models.

TECHNICAL SKILLS

Languages: Python, C/C++, LaTeX**Frameworks:** Pytorch**Languages:** TOEFL 105, GRE 325+3.0