LETIAN ZHANG

University of California, Santa Cruz, US | (+1) 8316000946 | zhanglt.gm@gmail.com | [Google Scholar](#)

EDUCATION

Tongji University   **Shanghai, China**
B.Eng. in Computer Science and Technology (Elite Class)   Sept. 2021 - June 2025
- GPA: 4.64/5.0 Ranking: 1/20

University of California, Santa Cruz   **California, US**
Ph.D in Computer Science   Sept. 2025 - Present

RESEARCH PROJECTS

OpenVision 3   **July 2025 - present**
- Developing a novel architecture of unified vision tokenizer for both understanding and generation.
- Leading the effort to train tokenizer and apply it to downstream tasks. The preliminary results show promising reconstruction fidelity and understanding performance.

VQA Reasoning   **Mar. - Nov. 2023**
- Developed a benchmark (C-VQA) composed of counterfactual visual questions with various difficulty levels for evaluating the compositional reasoning ability of VQA models.
- Led the effort to evaluate models on the C-VQA benchmark. Results revealed that most models fail to consider the counterfactual scenarios, lacking the reasoning power for advanced artificial intelligence.
- [Project Homepage](#). Accepted to **CVPR 2024**!

ImageNet3D+   **Aug. 2023 - May. 2024**
- Optimized existing dataset ObjectNet3D and developed ImageNet3D+ dataset with richer 3D CAD models and more precise object poses for better feature alignment.
- Evaluated ObjectNet3D on the NeMo model and analyzed the feature representation, providing insights for subsequent dataset establishing and potential model development.
- Accepted to **NeurIPS 2024 D&B**!

PUBLICATIONS

1. **Letian Zhang**, Xiaotong Zhai, Zhongkai Zhao, Yongshuo Zong, Xin Wen, Bingchen Zhao. *What If the TV Was Off? Examining Counterfactual Reasoning Abilities of Multi-modal Language Models*. **CVPR 2024**.
2. Wufei Ma, Guanning Zeng, Guofeng Zhang, Qihao Liu, **Letian Zhang**, Adam Kortylewski, Yaoyao Liu, Alan Yuille. *ImageNet3D: Towards General-Purpose Object-Level 3D Understanding*. **NeurIPS 2024 D&B**.
3. **Letian Zhang**, Quan Cui, Bingchen Zhao, Cheng Yang. *Oasis: One Image is All You Need for Multimodal Instruction Data Synthesis*. **ICCV 2025**.

Preprints

1. Yanqing Liu, Xianhang Li, **Letian Zhang**, Zirui Wang, Zeyu Zheng, Yuyin Zhou, Cihang Xie. *OpenVision 2 : A Family of Generative Pretrained Visual Encoders for Multimodal Learning*. **Submitted to ICLR 2026**.
2. Yuhan Wang, Siwei Yang, Bingchen Zhao, **Letian Zhang**, Qing Liu, Yuyin Zhou, Cihang Xie. *GPT-IMAGE-EDIT-1.5M: A Million-Scale, GPT-Generated Image Dataset*. **Submitted to ICLR 2026**.
3. Bingchen Zhao*, Yongshuo Zong*, **Letian Zhang***, Timothy Hospedales. *Benchmarking Multi-Image Understanding in Vision and Language Models: Perception, Knowledge, Reasoning, and Multi-Hop Reasoning*.

EXPERIENCE

ByteDance   **Shanghai, China**
Research Intern   Sep. 2024 - July 2025
- Working with [Dr. Quan Cui](#) and [Dr. Bingchen Zhao](#). I am working on the efficient synthesis of high-quality training data for multimodal large language models.
- Developing an automatic data synthesis method with high diversity and quality.

University of California, Santa Cruz <div align="right">**Remote**</div>

Research Intern <div align="right">Jun. 2024 - Mar. 2025</div>

- Supervised by [Prof. Cihang Xie](#). Working on the Code Critic project to establish a self-improving pipeline of coding LLMs for better code review ability.

Johns Hopkins University <div align="right">**Remote**</div>

Research Intern <div align="right">Aug. 2023 - May. 2024</div>

- Supervised by [Dr. Wufei Ma](#) and [Prof. Alan Yuille](#). I worked on a project to develop a superior general-purpose object-level 3D understanding.

LunarAI <div align="right">**Remote**</div>

Research Intern <div align="right">Mar. - Nov. 2023</div>

- Supervised by [Dr. Bingchen Zhao](#). I established a benchmark C-VQA to evaluate the counterfactual reasoning ability of current multimodal models.

ACADEMIC AWARDS

- **First Prize** of China Collegiate Programming Contest, Shenzhen Site CCPC 2023.
- **First prize** of National High School Mathematics League 2021.
- **First Prize** of Tongji University Scholarship 2022.
- **First Prize** of CCF Collegiate Computer Systems & Programming Contest CCSP 2023.
- **Second prize** of International Collegiate Programming Contest Asia-East Continent Final Contest ICPC 2022.
- **Second prize** of International Collegiate Programming Contest Asia-East Continent Final Contest ICPC 2021.
- **Second prize** of China Collegiate Programming Contest Final Contest CCPC 2022.
- **Second prize** of National Olympiad in Informatics in Provinces NOIP 2021.

SKILLS

- **Programming**: Python, Jax, C/C++, Java
- **Tools**: Git, LaTeX, Markdown, Tmux