ZIXIAO WANG

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https://github.com/kv-wang https://kv-wang.github.io/

EDUCATION

Peking University Beijing, China
Bachelor of Artificial Intelligence Aug. 2023 – present

- The Zhi Class (honors program) of 2023 at the department of EECS
- Overall GPA: 3.68/4

Carnegie Mellon University Pittsburgh, United States
Exchange student in School of Computer Science Jan. 2026 – present

HONORS

- Liao Kaiyuan Scholarship of Peking University, 2023–2024 academic year
- Merit Student of Peking University, 2023–2024 academic year
- Peking University Academic outstanding award, 2023–2024 academic year

RESEARCH INTERESTS

Large Language Models; Optimization; Multimodal Learning

RESEARCH EXPERIENCE

Project 1: OLion: Approaching the Hadamard Ideal by Intersecting Spectral and ℓ_∞ Implicit Biases

Zixiao Wang*, Yifei Shen*, Huishuai Zhang†

State Key Laboratory of General Artificial Intelligence, Peking University

Advisors: Prof. Huishuai Zhang (Peking University) and Prof. Dongyan Zhao (Peking University)

June 2025 – Jan. 2026

- Contribution: First author, all parts of codes & paper writing
- We introduce OLion, a memory-efficient optimizer that combines spectral control from Muon-style orthogonalized updates with ℓ_∞-style coordinate control from Lion-style sign updates.
- Paper link: OpenReview (Submitted to ICML 2026)

Project 2: Training-free Video Temporal Grounding Enhanced by Region Cue based Video-Level Adapter

Jiayi Gao, Minghang Zheng, **Zixiao Wang**, Yujie Zhong, Zilong Zheng, Yang Liu

Peking University

Advisors: Prof. Yang Liu (Peking University) Nov. 2024 – Mar. 2025

- Contribution: Coauthor, part of codes and paper writing
- Achieving the SOTA performance on various benchmarks of video temporal grounding
- Paper link: https://openreview.net/pdf?id=6xxumgT3qp (Submitted to AAAI 2026)

ACADEMIC PROJECTS

Final project for Computer Vision 2024

- Generate illusion images using diffusion, enabling text and image input as controlling context
- Open source: https://github.com/kv-wang/Computer-Vision-2024-final-project

Final project for Introduction to Visual Computing and Interaction 2024

- Apply path tracing algorithm on the rendering of Cornell Box scene
- Open source: https://github.com/kv-wang/Introduction-to-Visual-Computing-and-Interaction-Final-Project

SKILLS

Programming: C++, C, Python (PyTorch, TensorFlow), Mathematica, LaTeX
Tools: vLLM, DeepSpeed, Hugging Face, WandB, Docker, Git
English: TOEFL: 105 ; CET-6: 668