

# ZIXIAO WANG

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

## EDUCATION

### Peking University

Bachelor of Artificial Intelligence

Beijing, China

Aug. 2023 – present

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

### Carnegie Mellon University

Exchange student in School of Computer Science

Pittsburgh, United States

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 $\ell_\infty$ Implicit Biases

Zixiao Wang\*, Yifei Shen\*, Huishuai Zhang<sup>†</sup>

*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  $\ell_\infty$ -style coordinate control from Lion-style sign updates.
- Paper link: Arxiv

### 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

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**Programming:** C++, C, Python (PyTorch, TensorFlow), Mathematica, L<sup>A</sup>T<sub>E</sub>X

**Tools:** vLLM, DeepSpeed, Hugging Face, WandB, Docker, Git

**English:** TOEFL: 105 ; CET-6: 668