

Ziyuan He

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EDUCATION

Peking University, Yuanpei College Beijing, China

- *B.S. Candidate in **Artificial Intelligence*** *Sep. 2023 – June 2027 (Expected)*
- **GPA: 3.81 / 4.0** (Rank: Top 10%) | 91 Credits Completed (First 2 Years)
- **English Proficiency:** CET-6 Score: 603, CET-4 Score: 659

Main Course and Score

Advanced Mathematics A (96)	Math for AI (94)
Data Structures & Algorithms (93)	Intro to Artificial Intelligence (93)
C/C++ Programming Practice (95)	AI Hardware Foundations (97)
AI Systems Practice (I)/(II) (95/100)	Machine Learning (94)

Awards and Honors

Merit Student, Peking University	2023-present	No.1 in National College Entrance Exam (Gaokao, Zhejiang Province)	2023
Boya Scholarship	2023	Social Service Award	2024
Freshman First-Class Scholarship	2023	Xiaomi Scholarship	2024

PUBLICATIONS

- **Ziyuan He**, Shuyang Hou, Qingyang Wu, Qibin Yang, Huixing Jiang, Jiaqi Li, Muhan Zhang. *WebPano: How far can language agents learn from internet?* Under Review at **SIGKDD 2026**.
- **Ziyuan He**, Yuxuan Wang, Jiaqi Li, Kexin Liang, Muhan Zhang. *LooGLE v2: Are LLMs Ready for Real World Long Dependency Challenges?* In **NeurIPS 2025 (Datasets and Benchmarks Track)**.

RESEARCH EXPERIENCE

M μ Lab, Peking University Beijing, China

Research Assistant, Supervised by Muhan Zhang, Institute for Artificial Intelligence

Long-Context Understanding & Efficiency Optimization for LLM 01/2025 – 05/2025

- **Benchmark Construction (LooGLE v2):** Spearheaded the development of a unified benchmark to evaluate long-dependency capabilities; revealed significant performance degradation in SOTA models on real-world long-dependency tasks exceeding 128k tokens.
- **Architecture Analysis:** Investigated the bottlenecks of Transformer-based architectures in long-context scenarios; gained deep insights into KV-Cache optimization and efficient attention to analyze inference latency and memory overhead.

Generalizable Web Agents: Environment Exploration & RL Training 09/2025 – Present

- **Scalable Data Synthesis:** Engineered a high-efficiency web exploration framework capable of autonomous task synthesis, generating diverse interaction trajectories to overcome the data scarcity in agent training.
- **Agentic RL Algorithms:** Addressing the reward sparsity challenge in open-ended web tasks; implemented and fine-tuned advanced RL algorithms (GRPO, DAPO) to enhance the agent's long-horizon planning and decision stability.
- **Agent Memory & Skill:** Designed a dual-system agent featuring a **hybrid memory module** (short-term reasoning vs. long-term reflection) and a **dynamic skill library**, enabling the agent to retrieve past sub-routines and generalize to unseen websites via in-context learning.

SKILLS

- **Languages:** Python, C/C++.
- **Deep Learning & LLM:** PyTorch, DeepSpeed, vLLM, FlashAttention.
- **RL & Agents:** verl, Ray, Gymnasium, LangChain.

ACTIVITIES

Publicity Department, Yuanpei College	Deputy Minister	09/2024 - 07/2025
Machine Learning Course, Peking University	Teaching Assistant	09/2025 - Present