ZHUOFENG LI

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Zhuofeng-Li | Zhuofeng Li

EDUCATION

Standford University, 450 Jane Stanford Way Stanford, CA 94305–2004 *Aug, 2025 – Current*

Visiting Student

Advisor: Prof. Yejin Choi and Prof. James Zou

Texas A&M University, 1226 TAMU, College Station, TX 77843 *Aug, 2025 – Aug, 2030 (expected)*

Ph.D. in Computer Science

Advisor: Prof. Yu Zhang

RESEARCH INTERESTS

Fields Agents, Reasoning LLMs/VLMs, Reinforcement Learning, NLP

RESEARCH

* indicates equal contribution

Open Source Projects

1. **In-The-Flow Agentic System Optimization for Effective Planning and Tool Use.** (1.1K+ Stars)

   Zhuofeng Li*, Haoxiang Zhang*, Seungju Han, Sheng Liu, Jianwen Xie, **Yu Zhang**, **Yejin Choi**, **James Zou**, **Pan Lu**

2. **VerlTool: A unified and easy-to-extend tool-agent training framework based on verl.** (650+ Stars)

   Donfu Jiang*, **Zhuofeng Li***, Yi Lu*, Zhiheng Lv, Ping Nie, Chao Du, Tianyu Pang, **Wenhu Chen**

Preprints

1. **In-The-Flow Agentic System Optimization for Effective Planning and Tool Use.** *NeurIPS 2025 Workshop.* [arxiv] [website]

   Zhuofeng Li*, Haoxiang Zhang*, Seungju Han, Sheng Liu, Jianwen Xie, **Yu Zhang**, **Yejin Choi**, **James Zou**, **Pan Lu**

2. **VerlTool: Towards Holistic Agentic Reinforcement Learning.** In a submission to *ICLR 2026.* [arXiv] [code]

   Donfu Jiang*, Yi Lu*, **Zhuofeng Li***, Zhiheng Lv, Ping Nie, Chao Du, Tianyu Pang, **Wenhu Chen**.

3. **VideoEval-Pro: Robust and Realistic Long Video Understanding Evaluation.** In a submission to *ICLR 2025.*

4. **VideoScore2: Think before You Reward in Video Generation.** In a submission to *ICLR 2025.*

5. **ImagenWorld: Stress-Testing Image Generation Models with Explainable Human Evaluation on Open-ended Real-World Tasks.** In a submission to *ICLR 2025.*

Publications

1. **GReF: A Unified Generative Framework for Efficient Reranking via Ordered Multi-token Prediction.** *CIKM 2025.*

   Zhijie Lin*, **Zhuofeng Li***, ChengLei Dai, Wentian Bao, Shuai Lin, Yun En Yu, Haoxiang Zhang, **Liang Zhao**

2. **Avoiding Structural Pitfalls: Self-Supervised Low-Rank Feature Tuning for Graph Test-Time Adaptation.** *TMLR 2025.*

   Haoxiang Zhang*, **Zhuofeng Li***, Qiannan Zhang, Ziyi Kou, Juncheng Li, Shichao Pei.

3. **StructEval: Benchmarking LLMs' Capabilities to Generate Structural Outputs.** *Findings of EMNLP 2025.* [arXiv]

4. **TEG-DB: A Comprehensive Dataset and Benchmark of Textual-Edge Graphs.** *NeurIPS 2024.* [arXiv][code]

   Zhuofeng Li*, Zixing Gou*, Xiangnan Zhang, Zhongyuan Liu, Sirui Li, Yuntong Hu, Chen Ling, Zheng Zhang, **Liang Zhao**.

5. **Learning from Novel Knowledge: Continual Few-shot Knowledge Graph Completion.** *CIKM 2024.* [arXiv]

   Zhuofeng Li*, Haoxiang Zhang*, Qiannan Zhang, Ziyi Kou, Shichao Pei.

6. **Contrastive zero-shot relational learning for knowledge graph completion.** *Knowledge-Based Systems 2024.* [arXiv]

RESEARCH EXPERIENCE

Stanford University, 450 Jane Stanford Way Stanford, CA 94305–2004
Department of Computer Science Zou's Group Choi's xlab *June, 2025 – current*
Research Assistant, Advisor: Prof. James Zou and Prof. Yejin Choi
Project: In-the-Flow Agentic System Optimization [arxiv] [website]

- Introduce AgentFlow, a trainable tool-integrated agentic system to overcome the scalability and generalization limits of today's tool-augmented reasoning approaches.
- Pioneer a novel RL paradigm to directly optimize the agent within the system in an online fashion.
- Achieve strong performance on 10 benchmarks with a 7B backbone: +14.9% search, +14.0% agentic, +14.5% math, +4.1% scientific tasks; **surpassing larger-scale models like GPT-4o**.

University of Waterloo, 200 University Ave. West, Waterloo, Ontario
Department of Computer Science TIGER-AI-Lab *February, 2025 – current*
Research Assistant, Advisor: Prof. Wenhu Chen
Project: Agentic Tool-Use LLMs through RL [arXiv] [code]

- Propose a novel agentic async tool-use RL training framework.
- Achieve strong performance across diverse benchmarks, including math and search tasks.
- **Open-source tool-agent training framework Verl-Tool (500+ stars now)** and submit work to ICLR 2026.

Kuaishou, Haidian District, Beijing
Machine Learning Researcher *October, 2024 – February, 2025*
Project: Generative Personalized Re-ranking Recommendation

- Develop an end-to-end generative training framework for re-ranking recommendations powered by LLM, enhancing Recommendation System generalization and personalization.

- Deliver significant online gains on Kuaishou (300 M+ DAUs) and recognized as an excellent LR (launch review).
- **Accepted by CIKM 2025**.

Emory University, 201 Dowman Dr, Atlanta, GA 30322
Department of Computer Science *March, 2024 – October, 2024*
Research Assistant, Advisor: Prof. Liang Zhao
Project: LLMs for Textual Graph Mining [arXiv] [code]

- Propose a novel framework for link prediction on textual-edge graphs by jointly leveraging graph topology and semantic information. The method integrates coherent document composition and LLM-enhanced self-supervised training to equip GNNs with language understanding.
- Conduct extensive experiments on four real-world datasets, demonstrating that our method boosts the performance of general GNNs and achieves competitive results compared to edge-aware GNNs.
- **Accepted by NeurIPS 2024**.

PROGRAMMING SKILLS

Proficient Verl, OpenRLHF, VLLM, Sglang, Ray, DeepSpeed, Pytorch.