# 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 Reasoning LLMs/VLMs, Reinforcement Learning, NLP, Data Mining

### RESEARCH

## **Open Source Projects**

1. VerlTool: A unified and easy-to-extend tool-agent training framework based on verl. (500+ Stars)

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

### **Preprints**

- In-The-Flow Agentic System Optimization for Effective Planning and Tool Use. [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 Multitoken Prediction. CIKM 2025.

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

<sup>\*</sup> indicates equal contribution

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, Zhang 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 [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.