Zhengliang Shi

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EDUCATION

M.S. at Shandong University *Sep. 2023 – Jun. 2026*

- Computer Science and Technology; Rank: 1 / 41
- Supervised by Prof. *Zhaochun Ren*
- Core Modules: Machine Learning (99), Advanced Algorithms (98)

B.E. at Shandong University *Sep. 2019 – Jun. 2023*

- Computer Science and Technology; GPA: 93.46 / 100, Rank: 2 / 182
- Supervised by Prof. *Zhaochun Ren*, and Prof. *Xiuzhen Cheng*
- Core Modules: Advanced Mathematics (98), Discrete Mathematics (100)

SELECTED AWARDS

Presidential Scholarship (M.S.)	*2025*
National Scholarship, Ministry of Education, China (M.S.)	*2025*
Dean's Scholarship, Department of Computer Science (M.S.)	*2024*
Outstanding Graduate (B.E.)	*2023*
Academic Scholarship (B.E.)	*2021,2022,2023*
Presidential Scholarship (B.E.)	*2023*
Dean's Scholarship, Department of Computer Science (B.E.)	*2023*
National Scholarship, Ministry of Education, China (B.E.)	*2022*

ACADEMIC SERVICES

- **Area Chair for ACL Rolling Review (ARR)**, serving for conferences like ACL, EMNLP, and NAACL
- **Program Committee** for SIGIR, TheWebConf (WWW), WSDM, AAAI and IJCAI
- **Reviewer** for ICLR, ECIR, IPM (Journal), TKDD (Journal), TORS (Journal)

RESEARCH INTERESTS

My interests lie in Natural Language Processing and AI Agents, especially in the following three areas:

- **Retrieval-augmented Generation (RAG)**
  Incorporating agents with relevant knowledge from external corpora to improve their factuality.
- **Tool Learning (*also known as* Tool-use Agents)**
  Teaching agents to use diverse, external tools, expanding their action space to interact with digital world.
- **Agentic Planning (*also known as* Long-horizon Reasoning)**
  Enabling agents to decompose open-ended tasks into actionable sub-steps for tool executions.

PUBLICATIONS (Selected Papers Below; See the Full List in My [Google Scholar].)

I have published **15+ papers** in top-tier AI conferences, such as ACL and NeurIPS (8 first-authored). **Additional 7 papers** are under review, comprising 4 first-author and 3 co-authored papers. Below are **selected** publications.

[1] Contrastive learning reduces hallucination in conversations
Second author*;* Accepted at AAAI 2023; **RAG**

[2] Towards a Unified Framework for Reference Retrieval and Related Work Generation
First author*;* Accepted at EMNLP 2023; **RAG**

[3] MAIR: A Massive Benchmark for Evaluating Instructed Retrieval
Second author*;* Accepted at EMNLP 2024; **RAG**

[4] Mitigating Hallucinations in Large Vision-Language Models via Entity-Centric Multimodal Preference Optimization; *First* author; Accepted at EMNLP 2025; **Reducing Hallucination**

[5] Iterative Tool Learning from Introspection Feedback by Easy-to-Difficult Curriculum
First author; Accepted at AAAI 2024; **Agents**

[6] Learning to Use Tools via Cooperative and Interactive Agents;
First author; Accepted at EMNLP 2024; **Agents**

[7] Retrieval Models Aren't Tool-Savvy: Benchmarking Tool Retrieval for Large Language Models
First author; Accepted at ACL 2025; **Agents**

[8] Bridging the Capability Gap: Joint Alignment Tuning for Harmonizing LLM-based Multi-Agent Systems
First author; Accepted at EMNLP 2025; **Agents**

[9] Tool Learning in the Wild: Empowering Language Models as Automatic Tool Agents;
First author*;* Accepted at WWW 2025; **Agents**

[10] Generate-then-Ground in Retrieval-Augmented Generation for Multi-hop Question Answering
First author; Accepted at ACL 2024; **Agentic planning**

[11] Divide-Then-Aggregate: An Efficient Tool Learning Method via Parallel Tool Invocation
Second author; Accepted at ACL 2025**; Agentic planning**

[12] Iterative Self-incentivization Empowers Large Language Models as Agentic Searchers
First author; Accepted at NeurIPS 2025; **Agentic planning**

RESEARCH INTERNSHIPS

Tencent, TEG Group, HunYuan Multimodal Model Department *Apr. 2025 – Present*

- Research Internship; Supervised by Dr. *Zhaopeng Tu*
- Research Topic: Long-horizon Agent; Reasoning Reliability

Leiden University (Netherlands), Institute of Computer Science *Feb. 2025 – Mar. 2025*

- Research Visiting; Supervised by Prof. *Zhaochun Ren*, Prof. *Suzan Verberne,* and Prof. *Maarten de Rijke*
- Research Topic: Tool-use Agent

Baidu, Search Science Team *Sep. 2023 – Feb. 2025*

- Research Internship; Supervised by Dr. *Lingyong Yan* and Dr. *Dawei Yin*
- Research Topic: LLM-based Agent, Retrieval-augmented Generation

Shandong University, Information Retrieval Laboratory *Sep. 2022 – Jun. 2023*

- Research Assistant; Supervised by Prof. *Zhaochun Ren*
- Research Topic: Retrieval-augmented Generation

TEACHING ASSISTANCE

- Teaching Assistant for Social Network and Public Opinion Analysis (2023), Operating Systems (2022), and Databases (2022).
- Supervision of undergraduate researchers, including guiding thesis projects and providing research suggestion. Four undergraduates have contributed to and co-authored published papers.
- Organization of academic activities such as weekly reading groups to foster collaborative learning.
- Delivered both online and in-person voluntary lessons (2020) to support students from rural areas in China.