

ZIQI(OLIVIA) WANG

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EDUCATION

- **Rutgers University, New Brunswick, NJ, United States** 01/2025 - 12/2026(*expected*)
Master of Science in Computer Science , Department of Computer Science **GPA: 4.0/4.0**
- **Hebei University of Technology, Tianjin, China** 09/2020 - 06/2024
Bachelor of Literature in International Education of Chinese , School of Humanities and Law **GPA: 3.98/4.0**
- **2nd Prize in Graduation Scholarship**, 2023-2024 Academic Year, Hebei University of Technology 06/2024

PUBLICATION

- **RAGRouter-Bench: A Dataset and Benchmark for Adaptive RAG Routing** (*arXiv:2602.00296*)
Ziqi Wang, Xi Zhu, Shuhang Lin, Haochen Xue, Minghao Guo, Yongfeng Zhang Under Review at ARR 2026

WORKING EXPERIENCE

- **Siemens Ltd., China** 05/2025 - 08/2025
LLM and Data Analysis Intern, Digital Industrial Software Dept. Beijing, China
 - **Fine-tuned Industrial LLM:** Fine-tuned an industrial-specific Qianwen2.5 32B model by combining LoRA and prompt engineering, reducing hallucinations and enhancing accuracy on technical terminology by 12%.
 - **Automated Data Pipeline:** Developed an automated data pipeline using Scrapy, PyMuPDF, and MMOCR to process 500+ technical manuals, and utilized a VLM to parse diagrams, reducing manual processing time by over 80%.
 - **Built RAG Knowledgebase:** Cleaned and structured extracted multimodal data with Pandas to build an industrial knowledge base in Elasticsearch with over 2,000 entities, providing the dataset for a downstream RAG system.
- **Turingops Co., Ltd.** 04/2024 - 11/2024
AI Engineer Intern, Product Development Dept. Shanghai, China
 - **Built Intent Classifier:** Co-developed a core user intent recognition module, using prompt engineering, embedding similarity, a fine-tuned classifier, and an LLM reflection mechanism to achieve 85% stable accuracy.
 - **Optimized Query Robustness:** Contributed to a query preprocessing module by using sub-question generation, query rewriting and structural decomposition to boost average answer accuracy on complex queries by 16%.
 - **Generated User Insights:** Conducted in-depth user query analysis using BERTopic and LLM+Prompt for topic clustering, identifying high-frequency themes and knowledge gaps to provide data-driven reports for the team.
- **SOHU.com Limited** 01/2024 - 04/2024
Back-end Development Intern, Product Development Dept. Wuhan, China
 - **Back-end Developed:** Contributed to building microservices and RESTful APIs (Spring Boot) and optimizing database persistence layers, including implementing CRUD operations with JPA.
- **Danfoss Ltd., China** 03/2023 - 12/2023
Strategic Intern, Security Operation Center, Danfoss Group IT Tianjin, China
 - **Cybersecurity Maintenance and Research:** Developed automated Shell scripts for network traffic analysis and server diagnostics, supporting monitoring and failure analysis for a 1000+ device cluster and reducing troubleshooting time.

RESEARCH EXPERIENCE

- **Autonomous AI Agents** 12/2025 - Present
Research Assistant, Supervisor: Xiao Luo, University of Wisconsin Madison
 - **Agentic Framework Design:** Engineered a decoupled multi-agent architecture using Llama-8B, separating discriminative and decision-making modules to resolve logical conflicts and feedback loops in math and embodied tasks.
 - **Hallucination Mitigation:** Developed a fact-consistency verification mechanism to replace token-probability metrics, mitigating high-confidence hallucinations and improving self-correction accuracy by 5%.
- **Intelligent RAG Router** 05/2025 - Present
Research Assistant, Supervisor: Yongfeng Zhang, Rutgers University
 - **Benchmark Development:** Developed RAGRouter-Bench to unify the evaluation of data structure, result accuracy, cost, and latency across RAG paradigms, establishing a reusable engineering framework for adaptive routing decisions.
 - **Adaptive Routing Design:** Designed a dynamic router using query-corpus structural features to switch RAG paradigms, effectively balancing retrieval accuracy and inference overhead in complex reasoning scenarios.

ACADEMIC EXPERIENCE

- **Rutgers University, New Brunswick** 09/2025 - 12/2025
Teaching Assistant (CS462 Deep Learning, CS520 Introduction to AI), Computer Science Dept. New Jersey, USA
 - **Deep Learning Instruction:** Supported PyTorch-based model and architectures (CNNs, GNNs, GANs, Transformers) implementations and valuation pipelines for graduate-level Deep Learning and AI courses.

SKILLS

- **Computer Science:** *Programming Languages:* Python, C++, Java; *ML & DL:* PyTorch, TensorFlow, LoRA/PEFT, RAG; *Data:* Elasticsearch, Scrapy, Pandas, Docker
- **Languages:** Mandarin (Native), English (Proficient)