

Zekai Qu

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Education

China University of Geosciences, BS in Computer Science Sept 2020 – July 2024

- **GPA:** 3.89/4.0 (93.45/100)
- **Ranking:** 1/72

RESEARCH EXPERIENCE

ModelBest; Mentor: **Chaojun Xiao**; July 2024 – present

Topic: Long Context Modeling Based on Linear Attention and Sliding Window Attention

Details: Equipped Large Language Models (LLMs) with a memory module in the form of latent space using linear attention. This memory module is used to enhance the long context performance of sliding window attention and reduce the inference cost compared with Softmax attention. We have fine-tuned and validated the memory-equipped model based on Llama-3.1-8B.

THUNLP; Advisor: **Prof. Zhiyuan Liu**; Feb 2024– June 2024

Topic: Customized Large Language Model

Details: Equipped Large Language Models (LLMs) with customized modules obtained solely through forward pass in the form of latent space, and infused customized information into them with users' historical dialogue. We have validated our customized models based on Mistral-7B-Instruct-v0.2 and Llama-2-7b.

Tencent Wechat; Mentor: **Ruobing Xie**; Oct 2023 – Feb 2024

Topic: Analysis of Pre-trained Language Models in Sequential Recommendation

Details: Identified significant parameter redundancy of PLM in behavior sequence modeling for sequential recommendation and proposed to use behavior-tuned PLMs initialized item embeddings to enhance the performance of conventional ID-based SR models.

THUNLP; Advisor: **Prof. Zhiyuan Liu**; Oct 2022 – Oct 2023

Topic: Cross-Domain Recommendation Models Based on Pre-trained Language Models

Details: Proposed a unified pre-trained language model enhanced sequential recommendation algorithm for the cross-domain sequential recommendation, which thoroughly transfers the next item prediction task to a text generation task supported by a behavior-tuned PLM.

Publications

The Elephant in the Room: Rethinking the Usage of Pre-trained Language Model in Sequential Recommendation Apr 2024

Zekai Qu, Ruobing Xie, Chaojun Xiao, Xingwu Sun, Zhanhui Kang [PDF](#)

Accepted to RecSys 2024 (Oral).

Thoroughly Modeling Multi-domain Pre-trained Recommendation as Language Oct 2023

Zekai Qu, Ruobing Xie, Chaojun Xiao, Yuan Yao, Zhiyuan Liu, Fengzong Lian, Zhanhui Kang, Jie Zhou [PDF](#)

Accepted to TOIS.

SCHOLARSHIPS & AWARDS

2021-2024 First-Class Scholarship in Major (Top 3% of major).

2021-2022 Excellent Student Scholarship (One out of 72 students in major)

2021 Yu-Sheng Zhai Scholarship (10 out of all undergrad students)

2021-2022 Provincial first prize in College Mathematics Competition (At most Top 7%)

2021 Provincial second prize in College Physics Competition (At most Top 12%)