Haonan Chen

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ABOUT ME

I am a first-year Ph.D. student at Gaoling School of Artificial Intelligence (GSAI) in Renmin University of China, supervised by Prof. Zhicheng Dou.

My research interest is the area of Information Retrieval (IR). I am currently studying conversational search, aiming to improve users' search experience through conversations.

EDUCATION

Ph.D. in Artificial Intelligence Renmin University of China 2023.9 - Present

M.Sc. in Artificial Intelligence Renmin University of China GPA: 3.96/4 2021.9 - 2023.6

B.Sc. in Computer Science Harbin Institute of Technology GPA: 92.8/100, 2/206 2017.9 - 2021.6

LINKS

Github

Personal Website

Google Scholar

SKILLS

- · Python (Pytorch, Transformers)
- Linux
- Ranking Models LLMs

HONORS & AWARDS

2022.6 - NTCIR-16 SS Task - First Place, Oral & Presentation Award

2019.8 - Nubia Enterprise Scholarship (This is the scholarship given to the top 3% students in comprehensive measure)

EXPERIENCE

 $\begin{tabular}{ll} \textbf{Microsoft Asia, NLC group} & - Research Intern, \textbf{Stars of Tomorrow} \\ 2023. Present \end{tabular}$

2024.02 -

- Conducting research on Marge Language Models in the field of information retrieval.
- Focusing on how to generate better synthetic data to train more powerful embedding models.

Huawei Cloud, Algorithm Innovation Lab - Research Intern

2022.11 - 2023.11

- Based on the solution and the enterprise's profile data, the algorithmic capability is used to achieve precise matching between the solution and the enterprise, helping to efficiently expand customer base and enhance Huawei Cloud's revenue.
- Designed a multi-field matching model and utilized contrastive learning for pretraining to improve the performance of the text model. After the final model was launched, the online payment conversion rate increased by about 30% compared to the previously launched model.
- One academic paper is accepted by KDD2024 ADS Track.
- Served as the project leader, leading two other members to complete the project.

Huawei Poisson Lab - Research Intern

2022.3 - 2022.9

· Studying on session search, especially context-aware document ranking.

ByteDance - Android Developing Intern

2020.6 - 2020.8

- Use Flutter to develop a test app for the entire financial products.
- Participated in the development of some related requirements of the payment business, and launched on all products related to the payment business of ByteDance (such as Douyin, Toutiao).

SELECTED PUBLICATIONS

- * indicates equal contributions.
- Haonan Chen, Zhicheng Dou, Kelong Mao, Jiongnan Liu, Ziliang Zhao,
 "Generalizing Conversational Dense Retrieval via LLM-Cognition Data
 Augmentation," in ACL 2024 (Full paper, Main Conference) CCF A, [Code] [Paper]
- Haonan Chen, Zhicheng Dou, Xuetong Hao, Yunhao Tao, Shiren Song, Zhenli Sheng, "Enhancing Multi-field B2B Cloud Solution Matching via Contrastive Pre-training," in KDD 2024 (Full Paper, Applied Data Science Track) CCF A, [Paper]
- **Haonan Chen**, Zhicheng Dou, Yutao Zhu, Zhao Cao, Xiaohua Cheng, Ji-rong Wen, "Enhancing User Behavior Sequence Modeling by Generative Tasks for Session Search," in **CIKM'22 (Full paper) CCF B**, [Code] [Paper]
- **Haonan Chen**, Zhicheng Dou, Qiannan Zhu, Xiaochen Zuo, Ji-rong Wen, "Integrating Representation and Interaction for Context-aware Document Ranking," in **TOIS'22 (Full paper) CCF A**, [Code] [Paper]

Last updated July 9, 2024