ZIJIN HONG

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EDUCATION

Jinan University (JNU) & University of Birmingham (UoB)   *2020.09 - 2024.06*
JNU-UoB Dual degree bachelor (will receive degrees from two universities)
Program: B.Sc. in Applied Mathematics with Mathematics; GPA: 3.43/4.25
Supervisor: Professor Feiran Huang

RESEARCH INTEREST

Natural Language Processing (NLP), Large Language Models (LLMs)

PUBLICATION

Knowledge-to-SQL: Enhancing SQL Generation with Data Expert LLM   [PDF]
Zijin Hong, Zheng Yuan, Hao Chen[*], Qinggang Zhang, Feiran Huang, Xiao Huang
In Findings of the Association for Computational Linguistics: ACL 2024

Towards Better Question Generation in QA-based Event Extraction   [PDF]
Zijin Hong, Jian Liu[*]
In Findings of the Association for Computational Linguistics: ACL 2024 (top 2.7% rating in ARR 2024 Feb.)

HNCSE: Advancing Sentence Embeddings through Hybrid Contrastive Learning with Hard Negatives   [PDF]
Wenxiao Liu, Zihong Yang, Chaozhuo Li[*], **Zijin Hong**, Jianfeng Ma, Zhiquan Liu, Litian Zhang, Feiran Huang
Preprint, Under review by NeurIPS 2024

RESEARCH EXPERIENCE

Jinan University Computing Communication Research, Research Intern   *2023.02 - Present*
Advisor: Professor Feiran Huang

- Research on topic *Double Encoder Seq2Seq-Based Presidential Concept Stock Price Prediction Model*, leveraging Seq2Seq structures for the presidential concept stock price prediction. [Github]

- Research on topic *Dual-Path Attention-Based Sentiment Analysis Model with Text Summarization*, a well-designed Dual Path Attention-based Network enhancing sentiment analysis. [Github]

- Research on topic *Low-Resource Chinese Named Entity Recognition*, incorporating active learning to improve the model's performance of Chinese NER task in data-scarce scenarios. [Github]

- Research on topic *Advancing Sentence Embeddings through Hybrid Contrastive Learning with Hard Negatives*, using hard negatives contrastive learning to improve sentence representation. [Github]

iFLYTEK Research South China, Research Intern   *2022.07 - 2022.09*
Mentor: Researcher Guanghui Xu and Qianyun Du

- Engaged in practical application and development of large language models for controllable text generation, producing commercial copywriting that adheres to specified guidelines and structured corpus.

- Research on topic *Improving Text Editing Length of the LaserTagger model* in the context of controllable text generation, particularly for Chinese text editing tasks. Including the systematic study and improvement of typographical errors, word order, semantics, punctuation, and overall text refinement.

INDUSTRY EXPERIENCE

Unicom Industry Internet Co., Ltd, Algorithm Intern   *2023.01 - 2023.02*

- Participated in the research group of the Chinese Center for Disease Control and Prevention: responsible for Named Entity Recognition projects

- Undertook a multi-round epidemiological investigation chatbot project and constructed the DEMO – a GPT-J based model with Supervised Fine-Tuning and Reinforcement Learning with Human Feedback

AoFei Data Science Technology Co., Ltd, Data Analyst Intern   *2021.07 - 2022.01*

- Participated in the setup and development of distributed storage for medical data.

SERVICES

Teaching Assistant

- J4-2022114001 Data Mining, Jinan University   *Fall 2023*

AWARDS AND SCHOLARSHIPS

Excellent Undergraduate Thesis Defense (2/71), Jinan University	*2024*
First Prize Scholarship for Outstanding Graduates (1/71), Jinan University	*2024*
First Prize Scholarship for Outstanding Students (3/71), Jinan University	*2023*
Outstanding Student Leader Honor (top 15%), Jinan University	*2023*
Excellent Leadership Scholarship (top 1%), Jinan University, University of Birmingham	*2022*
Second Prize Scholarship for Outstanding Students (5/71), Jinan University	*2022*
Outstanding Student Leader Honor (top 15%), Jinan University	*2022*
Honourable Mention, Mathematical Contest in Modelling	*2021*

SKILLS

Languages
Cantonese (Native), Mandarin (Native), English (IELTS: 6.5)

Programming Languages
Python, C, Matlab, SQL, LaTeX

Operation Systems
Linux, MacOS, Windows