

Shitong Dai

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ACADEMIC INTEREST

Information Retrieval, Deep Learning, Data Mining, Nature Language Processing

EDUCATION

Gaoling School of Artificial Intelligence, Renmin University of China (RUC) **Beijing, China**
B.Eng. in Artificial Intelligence *Sept. 2020-Jun. 2024(Expected)*
GPA: 3.76/4.0; Ranking: 1/25
GAOLI Fintech Double degree program, RUC *Sept. 2020-Jun. 2024(Expected)*
Minor in Finance

PUBLICATION

Shitong Dai, Jiongnan Liu, Zhicheng Dou, Haonan Wang, Lin Liu, Bo Long,
Contrastive Learning for User Sequence Representation in Personalized Product Search, SIGKDD2023

RESEARCH EXPERIENCE

Renmin University of China (RUC) **Beijing, China**
Research Assistant @ NLP/IR Lab, Advisor: Prof. Zhicheng Dou

Project: Personalized Product Search with Optimized Sequence Representation *April 2022-Present*

- Proposed a novel method called CoPPS that adopts contrastive learning framework to boost user representations for personalized product search.
- Designed three different data augmentation approaches, including sequence-based, rule-based and graph-based strategies to construct different views of user sequences.
- Conducted extensive experiments on four Amazon datasets, and proved the effectiveness of our model, which bring at least 5% performance improvement.
- Mainly be responsible for the model design and all code implementation.
- Summarized our research results into a paper and submitted to SIGKDD2023.

Project: Cross-modal Retrieval Based on Pre-training Models *Oct. 2021-Mar. 2022*

- Used the existing pre-training models such as BERT to verify the effect on different test data sets.
- Fine-tuned the model and tested its effect on the downstream task of commodity retrieval.

SELECTED COURSEWORK AND CONTESTS

Project: The Optimization of Legal Cases Search

The 2022 First RUC Legal Data Analysis Challenge *Aug. 2022-Dec.2022*

- Designed pipeline-based retrieval model to optimize the retrieval function of similar cases based on the data set of legal cases.
- Won the first prize of the Challenge.

Project: Recommendation of The Elderly Home Service Based on Personalized Retrieval

China College Students' 'Internet+' Innovation and Entrepreneurship Competition *Mar. 2021-Sept. 2021*

- Utilized the latest recommendation algorithm of Jingdong to model user search behavior and update it in real time.
- Awarded as the Top Ten winning works of the 2021 'Jingdong Cup' of RUC.

Project: The Implementation Small Search Engine*Jul. 2021*

- Coursework for *Artificial Intelligence Integrated Design*, Score:91/100
- Studied the advanced methods of web crawler and the classical algorithms of information retrieval (such as TF-IDF, PAGE-RANK, etc.)
- Built some personal blog web platforms with the basic JS and CSS language.

SKILLS

Programming Language: Python, C/C++, Java, etc.**Front-end Development:** HTML, CSS, JS, Script, Go, etc.**AWARDS AND OTHERS**

- First prize, the 2022 First RUC Legal Data Analysis Challenge *2022*
- Second prize, Excellent Scholarship of RUC *2022*
- 2022 RUC - Huawei "Smart Base" student scholarship *2022*
- State-level project, 2022 RUC College Student Innovation Experiment Plan *2022*
- Honorable Mention, Mathematical Contest in Modeling *2022*
- Top 10%, 2021CCF Big Data and Computing Intelligence Competition *2021*
- Top 10 in the country, 2021 INNOTHON Campus Innovation Challenge Rematch *2021*
- Outstanding Student Backbone Scholarship of RUC *2021*
- Third prize, Excellent Scholarship of RUC *2021*
- 2020 Outstanding League Backbone of Renmin University of China *2021*