Min(Henry) Cai

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Education

Shenzhen University **Guangdong, China**
Master of Science in Computer Science and Technology (GPA: 85.0%) Sep.2021-Present

Beijing Language and Culture University **Beijing, China**
Bachelor of Arts in Translation (GPA: 89.8%) Sep.2016-Jun.2020

Research Interests

- I have broad interests in NLP, and particularly interested in enhancing language models to obtain more knowledge, and **better reasoning abilities**.
- Furthermore, I am keen on incorporating ideas from other fields (e.g., linguistics, cognitive science, and neuroscience) into the development of language models, and hopefully building systems that can help us **understand the underlying mechanisms of human nature**.
- My current research focuses on several tasks, including i) **question answering over knowledge base/graph (KBQA)**, and ii) **relation extraction**. I'm also working on **Large Language Models (LLMs)**, trying to discover their upper bounds and then test their abilities on various tasks.

Publications

Prompt-Based Relation Extraction By Reasoning with Contextual Knowledge
Haodi Zhang, **Min Cai**, Chen Zhang, Di Jiang, Lixin Fan, Defu Lian, Kaishun Wu
Under review at AAAI 2024

Self-Convinced Prompting: Few-Shot Question Answering with Repeated Introspection
Haodi Zhang, **Min Cai**, Xinhe Zhang, Defu Lian, Rui Mao, Kaishun Wu
Under review at EMNLP 2023

Recognizing Textual Entailment by Hierarchical Crowdsourcing with Diverse Labor Costs
Haodi Zhang, Yang Junyu, Wenxi Huang, **Min Cai**, Chen Zhang and Kaishun Wu
Under review at ICDE 2024

Research Experience

Internet of Things Research Center Shenzhen University
Graduate Research Student **Sep.2021-Present**
Advised by Prof. Haodi Zhang

- Aiming at i) incorporating miscellaneous types of knowledge (e.g., human heuristics, knowledge graph) into neural networks, ii) constructing better representations of knowledge, and iii) solving knowledge-intensive downstream tasks (e.g., KBQA, slot filling).
- Currently working on leveraging LLMs to solve complex knowledge-intensive and realistic problems.

Remote Research Collaboration with Dr. Ziniu Hu from Caltech/Google
Research Intern (Remote) **Aug.2023-Present**
Working with Dr. Ziniu Hu

- Leveraging Large Language Models to solve complex problems in decision-making.

Honors and Awards

Outstanding Student Scholarship, the second prize, Shenzhen University Oct.2021
Outstanding Student Scholarship, the third prize, Beijing Language and Culture University Sep.2018

Teaching Experience

Teaching Assistant, Compliers, Spring 2023, Shenzhen University

Additional Information

Languages: Chinese (Native in Mandarin and Cantonese; Fluent in Hakka), English (More fluently than Hakka)
NLP Toolkits: NLTK, Huggingface, HanLP, Stanford CoreNLP, AllenNLP
Deep/Machine Learning Toolkits: Pytorch, Numpy, Pandas, Scikit-learn
Document Editting: Latex
Programming Languages: Python, C, C++, HTML, CSS, Javascript