

SHENGKUN MA

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Education

Beijing University of Posts and Telecommunications

Sep. 2021 – Present

M.S. in Computer Science and Technology, School of Computer Science

Beijing, China

Lab: State Key Laboratory of Networking and Switching Technology, supervised by Prof. Bo Cheng

Honor: National Scholarship, Outstanding Graduate Student

Xidian University

Sep. 2017 – Jun. 2021

B.S. in Software Engineering, School of Computer Science and Technology

Xian, China

Honor: Second-class Scholarship with GPA 3.7/4.0

Publications

- **Making Pre-trained Language Models Better Continual Few-shot Relation Extractors**
Shengkun Ma, Jiale Han, Yi Liang and Bo Cheng.
Accepted as COLING 2024
- **A Rationale-Centric Data Augmentation Method for Cross-Document Event Coreference**
Bowen Ding*, Qingkai Min*, Shengkun Ma, Linyi Yang and Yue Zhang.
Accepted as NAACL 2024
- **Generative Prompt Tuning for Relation Classification**
Jiale Han, Shuai Zhao, Bo Cheng, Shengkun Ma and Wei Lu.
EMNLP 2022 Findings

Research Experience

Making PLMs Better Continual Few-shot Relation Extractors.

Jan. 2023 – Sep. 2023

First author (Supervised by Prof. Bo Cheng)

Beijing, China

- * This work focuses on continual few-shot relation extraction with two challenges: catastrophic forgetting and overfitting, and propose a contrastive prompt learning framework and introduce a memory augmentation strategy based on ChatGPT.
- * We outperform current SOTA by a large margin and significantly mitigate catastrophic forgetting and overfitting.
- * I'm the main person in charge of this project and this is my first work.
- * *Accepted as COLING 2024.*

A Rationale-centric Data Augmentation Method for Cross-Document ECR.

May 2023 – Aug. 2023

Group member of WestlakeNLP (Supervised by Prof. Yue Zhang and Dr. Linyi Yang)

Hangzhou, China

- * To reduce model overfitting on lexical surface matching of event triggers, we design a rationale-centric data augmentation method by generating trigger-diverse counterfactually augmented data from LLMs.
- * I'm responsible for evaluation of LLMs for Cross-Document Event Coreference Resolution.
- * *Accepted as NAACL 2024.*

Generative Prompt Tuning for Relation Classification.

Sep. 2021 – Jan. 2022

Co-author with Dr. Han (Supervised by Prof. Bo Cheng)

Beijing, China

- * To apply prompt learning to relation classification, we propose a novel generative prompt tuning method to reformulate relation classification as an infilling problem and design an entity-guided decoding for inference.
- * I'm mainly responsible for coding and conducting experiments.
- * *EMNLP 2022 Findings.*

Experience

Evaluation of Large Language Models

Apr. 2023 – Oct. 2023

Intern in WestlakeNLP, Westlake University (Supervised by Prof. Yue Zhang and Dr. Linyi Yang)

Hangzhou, China

- * Participate in the evaluation of large language models and responsible for designing schemes to solve some downstream tasks with LLMs and evaluating the performance of LLMs.
- * Some research work about Explainable Artificial Intelligence (XAI) and commonsense reasoning.

Mobile Phone Camera Driver Development

Mar. 2021 – May 2021

Embedded software development engineer (Intern in Consumer BG, huawei)

Xi'an, China

- * Work in basic ROM device driver development group and mainly learn about mobile phone camera hardware and drivers, also involved in new product camera drivers research and development.

Skills Summary

Programming Languages: Python, C++

Developer Tools: Linux, Pytorch, Huggingface

Languages: Mandarin, English