

# Kai Zhang

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## EDUCATION

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### The Ohio State University

Ohio, USA

Ph.D. in Computer Science and Engineering

Aug 2022-May 2027 (Expected)

- **GPA:** 4.0/4.0

### Zhejiang University City College

Zhejiang, China

B.E. in Computer Science and Technology

Sept 2016-Jun 2020

- **GPA:** 3.99/4.0 (93.51/100) **Rank:** 1/118

## RESEARCH EXPERIENCE

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### OSU NLP Group, The Ohio State University

Ohio, USA

Research Assistant; Advisor: Yu Su

Aug 2022-Present

### STCA Semantics and Knowledge Team, Microsoft

Beijing, China

Research Intern; Host: Chongyang Tao and Tao Shen

Mar 2022-July 2022

### Minds, Machines, and Society Group, Dartmouth College

New Hampshire, USA

Research Intern; Advisor: Soroush Vosoughi

Jun 2020-Sept 2020

### THU NLP Group, Tsinghua University

Beijing, China

Research Assistant; Advisor: Zhiyuan Liu

Nov 2019-Mar 2021

### CCAI, Zhejiang University City College

Zhejiang, China

Research Assistant; Advisors: Lin Sun and Fanwei Zhu

Jan 2018-Nov 2019

## SELECTED PUBLICATIONS

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(\* indicates equal contribution, † indicates first student author, # indicates work (co-)supervised by me.)

### 1. Unifier: A Unified Retriever for Large-Scale Retrieval

Tao Shen, Xiubo Geng, Chongyang Tao, Can Xu, Guodong Long, Kai Zhang, and Daxin Jiang  
In KDD, 2023.

### 2. Aligning Instruction Tasks Unlocks Large Language Models as Zero-Shot Relation Extractors

Kai Zhang, Bernal Jiménez Gutiérrez, Yu Su  
In Findings of ACL, 2023.

### 3. LED: Lexicon-Enlightened Dense Retriever for Large-Scale Retrieval

Kai Zhang, Chongyang Tao, Tao Shen, Can Xu, Xiubo Geng, Binxing Jiao, and Daxin Jiang  
In WWW (Oral), 2023.

### 4. GradTS: A Gradient-Based Automatic Auxiliary Task Selection Method Based on Transformer Network

Weicheng Ma, Renze Lou, Kai Zhang, Lili Wang, and Soroush Vosoughi  
In EMNLP, 2021.

### 5. Unified and Incremental SimRank: Index-free Approximation with Scheduled Principle

Fanwei Zhu, Yuan Fang, Kai Zhang†, Kevin Chen-Chuan Chang, Hongtai Cao, Zhen Jiang, and Minghui Wu  
In IEEE TKDE, 2021.

### 6. Contributions of Transformer Attention Heads in Multi- and Cross-lingual Tasks

Weicheng Ma\*, Kai Zhang\*, Renze Lou, Lili Wang, and Soroush Vosoughi  
In ACL (Oral), 2021.

### 7. Open Hierarchical Relation Extraction

Kai Zhang\*, Yuan Yao\*, Ruobing Xie, Xu Han, Zhiyuan Liu, Fen Lin, Leyu Lin, and Maosong Sun  
In NAACL-HLT, 2021.

## 8. Adversarial Language Games for Advanced Natural Language Intelligence

Yuan Yao, Haoxi Zhong, Zhengyan Zhang, Xu Han, Xiaozhi Wang, Kai Zhang, Chaojun Xiao, Guoyang Zeng, Zhiyuan Liu, and Maosong Sun  
In AAAI, 2021.

## 9. RpBERT: A Text-image Relation Propagation-based BERT Model for Multimodal NER

Lin Sun\*, Jiquan Wang\*, Kai Zhang, Fangsheng Weng, and Yindu Su  
In AAAI, 2021.

## 10. TOI-CNN: A Solution of Information Extraction on Chinese Insurance Policy

Lin Sun\*, Kai Zhang<sup>\*†</sup>, Fule Ji, and Zhenhua Yang  
In NAACL-HLT, 2019.

## PREPRINTS

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### 1. MagicBrush: A Manually Annotated Dataset for Instruction-Guided Image Editing

Kai Zhang\*, Lingbo Mo, Wenhui Chen, Huan Sun, and Yu Su  
arXiv:2306.10012, 2023.

### 2. Adaptive Chameleon or Stubborn Sloth: Unraveling the Behavior of Large Language Models in Knowledge Conflicts

# Jian Xie\*, Kai Zhang\*, Jiangjie Chen, Renze Lou, and Yu Su  
arXiv:2305.13300, 2023.

### 3. Automatic Evaluation of Attribution by Large Language Models

Xiang Yue, Boshi Wang, Kai Zhang, Ziru Chen, Yu Su, and Huan Sun  
arXiv:2305.06311, 2023.

### 4. Is Prompt All You Need? No. A Comprehensive and Broader View of Instruction Learning

Renze Lou, Kai Zhang, and Wenpeng Yin  
arXiv:2303.10475, 2023.

### 5. ChatDoctor: A Medical Chat Model Fine-tuned on LLaMA Model using Medical Domain Knowledge

Yunxiang Li, Zihan Li, Kai Zhang, Ruilong Dan, and You Zhang  
arXiv:2303.14070, 2023.

## SELECTED HONORS & AWARDS

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WWW 2023 Student Travel Award	2023
Honor for Seeking Truth & Commencement Student Speaker (Top 1), Zhejiang University City College	2020
National Scholarship (Top 1%), Ministry of Education of P.R.China	2019
Chinese College Students Self-Motivated Stars (Top 200 in China), All-China Students' Federation	2019
Merit-based Scholarship (Top 1%), Zhejiang University City College	2017-2019
Zhejiang Province Scholarship (Top 1%), Department of Education of Zhejiang	2017

## TALKS

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### Aligning LLM Instruction Tasks for Zero-Shot Relation Extraction.

University of Notre Dame NLP Seminar. March 2023  
AI TIME Seminar. May 2023

## SERVICES

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**Secondary Reviewer:** WSDM'21; NAACL-HLT'21; ACL'21; EMNLP'21

**PC Member/Reviewer:** ARR (since 22); CCKS'22-23; EMNLP'22-23; AAAI'23; WWW'23; ACL'23; KDD'23; NeurIPS'23; ICML'23-ToM