

# Kai Zhang

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## EDUCATION

### Zhejiang University City College

B.E. in Computer Science & Technology

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

Zhejiang, China

Sept 2016-Jun 2020

## RESEARCH EXPERIENCE

Minds, Machines, and Society Group. Dartmouth College

Research Intern; Advisor: Soroush Vosoughi

Tsinghua Natural Language Processing Lab (THUNLP). Tsinghua University

Research Assistant; Advisor: Zhiyuan Liu

City College Artificial Intelligence (CCAI). Zhejiang University City College

Research Assistant; Advisors: Lin Sun and Fanwei Zhu

New Hampshire, USA

June 2020-Sept 2020

Beijing, China

Nov 2019-Mar 2021

Zhejiang, China

Jan 2018-Nov 2019

## WORK EXPERIENCE

### Shanghai Fucong Financial Information Service Co., Ltd.

AI Intern

Shanghai, China

Jul 2018- Sept 2018

- Element Tagging on Insurance Policy for automatic Chinese insurance claims
- Heart-Hero: Medical Intelligent Question Answering Systems

## SELECTED PUBLICATIONS

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

1. Weicheng Ma, Renze Lou, **Kai Zhang**, Lili Wang, and Soroush Vosoughi. GradTS: A Gradient-Based Automatic Auxiliary Task Selection Method Based on Transformer Networks. In EMNLP 2021.
2. Fanwei Zhu, Yuan Fang, **Kai Zhang**†, Kevin Chen-Chuan Chang, Hongtai Cao, Zhen Jiang, and Minghui Wu. Unified and Incremental SimRank: Index-free Approximation with Scheduled Principle. In TKDE.
3. Weicheng Ma\*, **Kai Zhang**\*, Renze Lou, Lili Wang, and Soroush Vosoughi. Contributions of Transformer Attention Heads in Multi- and Cross-lingual Tasks. In ACL 2021 (**Oral**).
4. **Kai Zhang**\*, Yuan Yao\*, Ruobing Xie, Xu Han, Zhiyuan Liu, Fen Lin, Leyu Lin, and Maosong Sun. Open Hierarchical Relation Extraction. In NAACL-HLT 2021.
5. # Jian Xie\*, **Kai Zhang**\*, Lin Sun, Yindu Su, and Chenxiang Xu. Improving Social Media NER via Entity Type-Compatible Unknown Word Substitution. In ICASSP 2021.
6. # Yutong Wang\*, Renze Lou\*, **Kai Zhang**\*, Maoyan Chen, and Yujiu Yang. MORE: A Metric Learning Based Framework for Open-Domain Relation Extraction. In ICASSP 2021.
7. Yuan Yao, Haoxi Zhong, Zhengyan Zhang, Xu Han, Xiaozhi Wang, **Kai Zhang**, Chaojun Xiao, Guoyang Zeng, Zhiyuan Liu, and Maosong Sun. Adversarial Language Games for Advanced Natural Language Intelligence. In AAAI 2021.
8. Lin Sun\*, Jiquan Wang\*, **Kai Zhang**, Fangsheng Weng, and Yindu Su. RpBERT: A Text-image Relation Propagation-based BERT Model for Multimodal NER. In AAAI 2021.
9. **Kai Zhang**, Lin Sun, and Fule Ji. A TOI based CNN with Location Regression for Insurance Contract Analysis. In IJCNN 2019 (**Oral**).
10. Lin Sun\*, **Kai Zhang**\*†, Fule Ji, and Zhenhua Yang. TOI-CNN: A Solution of Information Extraction on Chinese Insurance Policy. In NAACL-HLT 2019.

## SELECTED HONORS & AWARDS

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Honor for Seeking Truth & Commencement Student Speaker (Top 1)	Zhejiang University City College, 2020
Outstanding Graduation Thesis (Top 1)	Zhejiang University City College, 2020
Special National Scholarship (Top 10 in Zhejiang Province)	Ministry of Education of P.R.China, 2019
National Scholarship (Top 1%)	Ministry of Education of P.R.China, 2019
Chinese College Students Self-Improvement Stars (Top 200 in China)	All-China Students' Federation, 2019
First Class Scholarship for Academic Performance (Top 1%)	Zhejiang University City College, 2017-2019
First Class Scholarship for Competition Performance (Top 1%)	Zhejiang University City College, 2017-2018
Zhejiang Province Scholarship (Top 1%)	Department of Education of Zhejiang, 2017
First Prize, Collegiate Theoretical Physics Competition (Top 1%)	Department of Education of Zhejiang, 2017
Second Prize, Collegiate Mathematics Competition (Top 5%)	Department of Education of Zhejiang, 2017

## RESEARCH FUNDINGS

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<b>Research on Nested Named Entity Recognition</b>	2,700 USD
National Innovation Training Program for College Students: 201913021001	Mar 2019-June 2020
<b>Prediction on User's Music Listening Behavior</b>	2,300 USD
National Innovation Training Program for College Students: 201913021002	Mar 2019-June 2020
<b>GAN based Image Style Transfer System</b>	1,500 USD
National Innovation Training Program for College Students: 201813021002	July 2018-Oct 2018

## SERVICES

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**External Reviewer:** WSDM 2021; NAACL-HLT 2021; ACL 2021; EMNLP 2021

**Teaching Assistant:** Data Structure; Search Engine; Data Mining; Data Analysis; Object-Oriented Programming

**Leadership:** Co-Founder & Chairman, CCAI at Zhejiang University City College

## SKILLS

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**Programming Languages:** Python; Java; C/C++; Matlab; R; Objective-C;  $\text{\LaTeX}$

**Deep Learning Frameworks:** PyTorch; TensorFlow

**English (TOEFL):** 107 (Reading 29, Listening 28, Speaking 23, Writing 27)