Renze Lou

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EDUCATION

Penn State University, State College, USA   Jan 2023-Present
Ph.D., Computer Science | NLP

Zhejiang University City College (ZUCC), Hangzhou, China   Sept 2018-Jul 2022
B.Eng., Software Engineering | GPA (junior): 3.95/4.0 | Average Score: 87.01/100 | Rank: 2/67

PUBLICATIONS

(* indicates equal contribution)

1. Yuanhe Tian, **Renze Lou**, Xiangyu Pang, Lianxi Wang, Shengyi JIANG and Yan Song. Improving English-Arabic Transliteration with Phonemic Memories. *In EMNLP - Findings 2022*.
   - Be responsible for the creation of corpus, including crawling, annotation and analysis.
   - Participate in the experiments, design and implement the baselines.
   - Write the corresponding part of the paper. Participate in the rebuttal.

2. 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*.
   - Deal with all the experiments, complete most of codes (90%) and reproduce the strong closed-source baseline.
   - Provide the details of experiments, participate in designing the experimental settings.

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 (**Long Oral**)*.
   - Participate in collecting massive NLP corpus and help design the experimental settings.
   - Handle the NER task of our experiments (40%). Help refine our algorithm according to the observation on head-masked distribution and some other unexpected results.

4. 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*.
   - Study intensively in related fields, improve our methodology with VAT strategy, gain a better performance.
   - Lead and design all the experiments, complete most of the codes ($\geq 90\%$).
   - Accomplish the whole paper writing and the rebuttal letter (100%).

5. **Renze Lou***, Fan Zhang*, Xiaowei Zhou, Yutong Wang, Minghui Wu, Lin Sun. A Unified Representation Learning Strategy for Open Relation Extraction with Ranked List Loss. *In CCL 2021*.
   - Define and scope the research problem and propose the idea of a unified representation learning Framework.
   - Complete all of our codes and run the experiments (100%).
   - Finish the whole paper writing (100%).

RESEARCH EXPERIENCE

Research Assistant. College of Engineering.	**Penn State University**
Advisor: Wenpeng Yin	Aug 2022-Present
Research Assistant. School of Data Science.	**The Chinese University of HongKong (Shenzhen)**
Advisor: Yan Song	Oct 2021-Jun 2022
Remote Research Intern. Minds, Machines and Society Group.	**Dartmouth College**
Advisor: Soroush Vosoughi	Oct 2020-Aug 2021
Remote Research Intern. Intelligent Computing Laboratory.	**Tsinghua University**
Advisor: Yujiu Yang	Jun 2020-Oct 2020
Research Assistant. Institute of Artificial Intelligence.	Zhejiang University City College
Advisors: Lin Sun and Minghui Wu	May 2020-Mar 2021

WORK EXPERIENCE

Hangzhou Maixiang Health Technology Co., Ltd   *Zhejiang, China*
Jul 2021- Sept 2021   *NLP Algorithm Intern*

· Research on the Application of Traditional Chinese Medical Knowledge Graph

PROJECTS

1. Research on Open Relation Extraction in Medical Therapic Recording   *Leader*; May 2021- May 2022
National Innovation Training Program for College Students (202113021002)   18,000 RMB
2. Research on Named Entity Recognition in Social Media   *Member*; May 2021-May 2022
National Innovation Training Program for College Students (202113021003)   15,000 RMB

AWARDS

Outstanding Technical Contribution Grant for OpenVINO (awarded by Intel)	2022
Outstanding Graduates of Zhejiang Province (**3%**, awarded by Zhejiang Provincial Government)	2022
Zhejiang Provincial Government Scholarship (**3%**, awarded by Zhejiang Provincial Government)	2021
First Class Scholarship for Excellence in Scientific Research (**5%**, awarded by ZUCC)	2021
First Class Scholarship for Excellence in Competition Performance (**5%**, awarded by ZUCC)	2021
Second Class Scholarship for Academic Performance and Innovation (**5%**, awarded by ZUCC)	2020,2021
First Class Scholarship for Academic Performance and Innovation (**1%**, awarded by ZUCC)	2019

SERVICES

PC Member: ACL2023; EMNLP 2022.

External Reviewer: EMNLP 2022; EMNLP 2021; IJCAI 2021; JIFS.

Leadership: Co-Founder of CCAi (the first institution for Artificial Intelligence at ZUCC).

Teaching Asistance: Deep-Learning Application Development; Object-oriented Programming.

SKILLS

Programming: Python; LaTeX; Java; C/C++; Matlab.

Tools: Pytorch; Transformers (huggingface); DeepSpeed; Keras; Scikit-learn.