Jiangjie Chen

jjchen19@fudan.edu.cn · https://jiangjiechen.github.io

Research Interests

Devoted to reasoning over natural language and making machines being right for the right reasons. Main interested research topics include (but not limited to):

- Machine reasoning, especially on endowing various kinds of human-like reasoning abilities to language models, including analogical reasoning, counterfactual reasoning, decision-making, planning, etc.;
- Text generation, especially on the building of factual, faithful, controllable and knowledge-guided text generation techniques;
- The intersect of machine reasoning and text generation, i.e., achieving machine reasoning with the vehicle of natural language, especially with free-text rationales generated by language models.

Education

Fudan University (Shanghai). Ph.D. in Computer Science 2019 - 2024 (estimated)

Ph.D. Advisor: Yanghua Xiao.

Fudan University (Shanghai). B.S. in Computer Science (*honors student*) 2014 - 2019

Research Papers

[*: Equal Contribution]

Publications

1. *Neighbors Are Not Strangers: Improving Non-Autoregressive Translation under Low-Frequency Lexical Constraints*
   Chun Zeng*, **Jiangjie Chen***, Tianyi Zhuang, Rui Xu, Hao Yang, Ying Qin, Shimin Tao, Yanghua Xiao.
   Long paper, in: *NAACL 2022* (oral).
2. *E-KAR: A Benchmark for Rationalizing Natural Language Analogical Reasoning*
   Jiangjie Chen, Rui Xu, Ziquan Fu, Wei Shi, Zhongqiao Li, Xinbo Zhang, Changzhi Sun, Lei Li, Yanghua Xiao and Hao Zhou.
   Long paper, in: *Findings of ACL 2022*.
3. *FalCon: A Faithful Contrastive Framework for Response Generation in TableQA Systems*
   Shineng Fang, **Jiangjie Chen**, Xinyao Shen, Yunwen Chen, Yanghua Xiao.
   Long paper, in: *DASFAA 2022*.
4. *LoReN: Logic-Regularized Reasoning for Interpretable Fact Verification*
   Jiangjie Chen, Qiaoben Bao, Changzhi Sun, Xinbo Zhang, Jiaze Chen, Hao Zhou, Yanghua Xiao, Lei Li.
   Regular paper, in: *AAAI 2022* (oral).
5. *Unsupervised Editing for Counterfactual Stories*
   Jiangjie Chen, Chun Gan, Sijie Cheng, Hao Zhou, Yanghua Xiao, Lei Li.
   Regular paper, in: *AAAI 2022* (oral).
6. *Diversified Query Generation Guided with Knowledge Graph*
   Xinyao Shen, **Jiangjie Chen**, Jiaze Chen, Chun Zeng, Yanghua Xiao.
   Long paper, in: *WSDM 2022*.
7. *Harvesting More Answer Spans from Paragraphs beyond Annotation*
   Qiaoben Bao, **Jiangjie Chen**, Linfang Liu, Jiaqing Liang, Jingping Liu, Yanghua Xiao.
   Long paper, in: *WSDM 2022*.
8. *Diversified Paraphrase Generation with Commonsense Knowledge Graph*
   Xinyao Shen, **Jiangjie Chen**, Yanghua Xiao.
   Long paper, in: *NLPCC 2021* (oral).
9. *Probabilistic Graph Reasoning for Natural Proof Generation*
   Changzhi Sun*, Xinbo Zhang*, **Jiangjie Chen**, Chun Gan, Yuanbin Wu, Jiaze Chen, Hao Zhou, Lei Li.
   Long paper, in: *Findings of ACL 2021*.
10. *Ensuring Readability and Data-fidelity using Head-modifier Templates in Deep Type Description Generation*
    Jiangjie Chen, Ao Wang, Haiyun Jiang, Suo Feng, Chenguang Li, Yanghua Xiao.
    Long paper, in: *ACL 2019*.
11. *CN-Probase: A Data-driven Approach for Large-scale Chinese Taxonomy Construction*
    Jindong Chen, Ao Wang, **Jiangjie Chen**, Yanghua Xiao, Zhendong Chu, Jingping Liu, Jiaqing Liang, Wei Wang.
    Short paper, in: *ICDE 2019*. (CN-Probase has achieved near 100 million API calls at http://kw.fudan.edu.cn/cnprobase.)

Experience

University of California, Santa Barbara (Remote) Sept. 2021 - Present

- Role: Research Intern
- Host: Lei Li
- Topics: Machine Reasoning

ByteDance AI-Lab (Shanghai) Nov. 2019 - Present

- Role: Research Intern
- Advisors: Lei Li (now at UCSB), Hao Zhou (now at Tsinghua University), Changzhi Sun
- Topics: Knowledge-guided Generation, Machine Reasoning

Knowledge Works Lab at Fudan University (Shanghai) Apr. 2017 - Present

- Role: Student Researcher
- Advisor: Yanghua Xiao
- Topics: Text Generation, Machine Reasoning, Knowledge Graph

Awards

C hina National Scholarship for Doctoral Students 2022
Honors Student Award in Computer Science of Top Talent Undergraduate Training Program 2019

Academic Service

- Program Committee/Reviewer of EMNLP (2021, 2022), AAAI (2021-2023), TPAMI (2022), APIN (2022), WSDM (2023), NLPCC (2021, 2022).