

# JIANGJIE CHEN

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## BIOGRAPHY

**Jiangjie Chen** (陈江捷) is a final year Ph.D. candidate at Fudan University in the School of Computer Science, Shanghai, China. His interested research topics are mostly around **autonomous generative agents**, including (but are not limited to):

- **Autonomous Generative Agents:** Developing advanced methods for autonomous agents that can generate controllable, consistent, and faithful content. This extends towards the exploration of their interactions with multiple agents and real environments.
- **Cognitive Modeling in Language Models:** Focusing on integrating elements from cognitive science into language models, such as the aspects of belief systems, analogical reasoning, Theory-of-Mind, etc. The goal is to augment the understanding of these agents regarding themselves and others, hence enabling them to generate more cognitively-aligned and human-like responses.
- **Reasoning and Strategic Planning:** Advancing research on equipping generative agents with human-level reasoning abilities and strategic planning capabilities. This involves designing and implementing methodologies to incorporate decision-making, counterfactual thinking, and other complex reasoning tasks in generative models.
- **Evaluation and Simulation Environments:** Establishing evaluation frameworks and creating simulation environments to assess the progress of multiple generative agents. These aim to capture the multi-faceted aspects of generative intelligence, from basic belief consistency to advanced reasoning and planning capabilities.

## EDUCATION

- Fudan University** (Shanghai). Ph.D. in School of Computer Science 2019 - 2024
- Shanghai Key Laboratory of Data Science, Knowledge Works Laboratory.
  - Ph.D. Advisor: [Yanghua Xiao](#).
  - Topics: Reasoning and Planning in Language Models, Knowledge-guided Language Generation.
- Fudan University** (Shanghai). B.S. in School of Computer Science (graduated with *honors*) 2014 - 2019
- Shanghai Key Laboratory of Data Science, Knowledge Works Laboratory.
  - Advisor: [Yanghua Xiao](#).
  - Topics: Taxonomic Knowledge Graph Construction.

## EXPERIENCES

- Allen Institute for AI** (Seattle, WA, USA) Jun 2023 - Sep 2023
- Role: Research Intern, at [Aristo Team](#)
  - Manager: [Peter Clark](#)
  - Mentor: [Kyle Richardson](#)
  - Responsibilities: Work on multi-agent reasoning and planning with large language models.
- UC Santa Barbara** (Remote) Sep 2021 - May 2023
- Role: Visiting Research Intern
  - Host: [Lei Li](#)
  - Responsibilities: Work on machine reasoning over language with large language models.
- ByteDance AI Lab** (Shanghai, China) Nov 2019 - May 2023
- Role: Research Intern
  - Manager: [Lei Li](#)
  - Mentors: [Lei Li](#), [Hao Zhou](#), [Changzhi Sun](#), [Jiaze Chen](#)
  - Responsibilities: Work on knowledge-guided text generation, and machine reasoning over language.
- Knowledge Works Laboratory at Fudan University** (Shanghai, China) Sep 2019 - Present
- Role: Student Research Leader
  - Responsibilities: Lead the research group on natural language generation and reasoning. Mentored near 20 graduate and undergraduate students over the past years. Together, we co-authored and published several research papers, including one that received an Outstanding Paper Award in ACL 2023.

## SELECTED AWARDS

- ACL 2023 Outstanding Paper Award** 2023  
Association of Computational Linguistics
- Huawei Scholarship** 2023  
Fudan University
- China National Scholarship for Doctoral Students** 2022  
Fudan University

## SELECTED PUBLICATIONS

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[\*: Equal Contribution; ♡: Me as Corresponding Author; ♠: Student I Mentored]

- [1] **Put Your Money Where Your Mouth Is: Evaluating Strategic Planning and Execution of LLM Agents in an Auction Arena**  
Jiangjie Chen, Siyu Yuan♠, Rong Ye, Bodhisattwa Prasad Majumder, Kyle Richardson.  
Preprint, 2023.
- [2] **Distilling Script Knowledge from Large Language Models for Constrained Language Planning**  
Siyu Yuan♠, Jiangjie Chen♡, Ziquan Fu♠, Xuyang Ge♠, Soham Shah, Charles Robert Jankowski, Yanghua Xiao, Deqing Yang.  
Long paper, in: **ACL 2023**, *Outstanding Paper Award*.
- [3] **Say What You Mean! Large Language Models Speak Too Positively about Negative Commonsense Knowledge**  
Jiangjie Chen, Wei Shi♠, Ziquan Fu♠, Sijie Cheng, Lei Li, Yanghua Xiao.  
Long paper, in: **ACL 2023**.
- [4] **Converge to the Truth: Factual Error Correction via Iterative Constrained Editing**  
Jiangjie Chen\*, Rui Xu\*♠, Wenxuan Zeng♠, Changzhi Sun, Lei Li, Yanghua Xiao.  
Regular paper, in: **AAAI 2023**.
- [5] **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**.
- [6] **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**.

## COMPLETE PUBLICATIONS

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[\*: Equal Contribution; ♡: Me as Corresponding Author; ♠: Student I Mentored]

- [7] **Translate Meanings, Not Just Words: IdiomKB's Role in Optimizing Idiomatic Translation with Language Models**  
Shuang Li♠, Jiangjie Chen♡, Siyu Yuan♠, Xinyi Wu♠, Hao Yang, Shimin Tao, Yanghua Xiao.  
Preprint, 2023.
- [8] **Adaptive Chameleon or Stubborn Sloth: Unraveling the Behavior of Large Language Models in Knowledge Clashes**  
Jian Xie\*♠, Kai Zhang\*, Jiangjie Chen, Renze Lou, Yu Su.  
Preprint, 2023.
- [9] **Beneath Surface Similarity: Large Language Models Make Reasonable Scientific Analogies after Structure Abduction**  
Siyu Yuan♠, Jiangjie Chen♡, Xuyang Ge♠, Yanghua Xiao, Deqing Yang.  
Long paper, in: **Findings of EMNLP 2023**.
- [10] **AnalogyKB: Unlocking Analogical Reasoning of Language Models with A Million-scale Knowledge Base**  
Siyu Yuan\*♠, Jiangjie Chen\*, Changzhi Sun, Jiaqing Liang, Yanghua Xiao, Deqing Yang.  
Preprint, 2023
- [11] **Unsupervised Explanation Generation via Correct Instantiations**  
Sijie Cheng, Zhiyong Wu, Jiangjie Chen, Zhixing Li, Yang Liu, Lingpeng Kong.  
Regular paper, in: **AAAI 2023**.
- [12] **Harnessing Knowledge and Reasoning for Human-Like Natural Language Generation: A Brief Review**  
Jiangjie Chen, Yanghua Xiao.  
Invited paper, in: **Bulletin of the IEEE Technical Committee on Data Engineering (2022)**
- [13] **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**.
- [14] **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**.

- [15] **Unsupervised Editing for Counterfactual Stories**  
**Jiangjie Chen**, Chun Gan, Sijie Cheng, Hao Zhou, Yanghua Xiao, Lei Li.  
Regular paper, in: **AAAI 2022**.
- [16] **Diversified Query Generation Guided with Knowledge Graph**  
Xinyao Shen<sup>✉</sup>, **Jiangjie Chen**, Jiaze Chen, Chun Zeng<sup>✉</sup>, Yanghua Xiao.  
Long paper, in: **WSDM 2022**.
- [17] **Harvesting More Answer Spans from Paragraphs beyond Annotation**  
Qiaoben Bao<sup>✉</sup>, **Jiangjie Chen**, Linfang Liu<sup>✉</sup>, Jiaqing Liang, Jingping Liu, Yanghua Xiao.  
Long paper, in: **WSDM 2022**.
- [18] **Diversified Paraphrase Generation with Commonsense Knowledge Graph**  
Xinyao Shen<sup>✉</sup>, **Jiangjie Chen**, Yanghua Xiao.  
Long paper, in: **NLPCC 2021**.
- [19] **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**.
- [20] **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**.
- [21] **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>.)

## ACADEMIC SERVICES

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- Serving as a Program Committee of ACL (2023), EMNLP (2021-), AAAI (2021-), WSDM (2023), NLPCC (2021-), and some corresponding workshops.
- Serving as a Journal Reviewer of TPAMI (2022-), APIN (2022-).
- Served as a Secondary Reviewer of ACL, EMNLP, EACL, KDD, CIKM, SIGIR, etc.