# Jia-Chen Gu

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## EXPERIENCE AND EDUCATION

University of California, Los Angeles	Los Angeles, USA
Postdoctoral researcher, hosted by Prof. Nanyun (Violet) Peng and Prof. Kai-Wei Chang	Nov 2023 - Present
University of Science and Technology of China	Anhui, China
Postdoctoral researcher, hosted by Prof. Zhen-Hua Ling	Jun 2022 - Oct 2023
Microsoft	Beijing, China
Research intern, hosted by Dr. Chongyang Tao and Dr. Daxin Jiang	Sep 2020 - Jun 2021
Queen's University Visiting student, hosted by Prof. Xiaodan Zhu	Kingston, Canada Dec 2019 - May 2020
University of Science and Technology of China Ph.D. in Signal and Information Processing, supervised by Prof. Zhen-Hua Ling	Anhui, China Sep 2017 - Jun 2022
Hohai University B.E. in Communication Engineering	Jiangsu, China Sep 2013 - Jun 2017

## **SELECTED HONORS**

Best Paper Honorable Mention Award of ACL	2023
Best Paper Award of DialDoc@ACL	2022
Outstanding Doctoral Dissertation Nomination Award of Chinese Information Processing Society	2022
Presidential Scholarship of Chinese Academy of Sciences (Top 1%)	2022
Outstanding Graduate Award of University of Science and Technology of China	2022
China National Scholarship	2021
Huayu Scholarship	2021
Presidential Yan Kai Scholarship (Top 0.1%, the highest honor of HHU)	2015

### **PUBLICATIONS**

500+ Google Scholar citations in total. Published at ACL, EMNLP, SIGIR, CIKM, IJCAI, TASLP, etc.

- Jia-Chen Gu, Chao-Hong Tan, Caiyuan Chu, Zhen-Hua Ling, Chongyang Tao, Quan Liu, Cong Liu. MADNet: Maximizing Addressee Deduction Expectation for Multi-Party Conversation Generation. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2023.
- Jia-Chen Gu, Zhen-Hua Ling, Quan Liu, Cong Liu, Guoping Hu. GIFT: Graph-Induced Fine-Tuning for Multi-Party Conversation Understanding. In *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*. 2023. Best Paper Honorable Mention Award.
- Jia-Chen Gu, Chongyang Tao, Zhen-Hua Ling. Who Says What to Whom: A Survey of Multi-Party Conversations. In *Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI)*. 2022.
- Jia-Chen Gu, Chao-Hong Tan, Chongyang Tao, Zhen-Hua Ling, Huang Hu, Xiubo Geng, Daxin Jiang. HeterMPC: A Heterogeneous Graph Neural Network for Response Generation in Multi-Party Conversations. In *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*. 2022.
- Jia-Chen Gu, Zhen-Hua Ling, Yu Wu, Quan Liu, Zhigang Chen, Xiaodan Zhu. Detecting Speaker Personas from Conversational Texts. In *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2021.
- Jia-Chen Gu, Chongyang Tao, Zhen-Hua Ling, Can Xu, Xiubo Geng, Daxin Jiang. MPC-BERT: A Pre-Trained Language Model for Multi-Party Conversation Understanding. In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. 2021.

- Jia-Chen Gu, Hui Liu, Zhen-Hua Ling, Quan Liu, Zhigang Chen, Xiaodan Zhu. Partner Matters! An Empirical Study on Fusing Personas for Personalized Response Selection in Retrieval-Based Chatbots. In *Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*. 2021.
- Jia-Chen Gu, Tianda Li, Zhen-Hua Ling, Quan Liu, Zhiming Su, Yu-Ping Ruan, Xiaodan Zhu. Deep Contextualized Utterance Representations for Response Selection and Dialogue Analysis. *IEEE/ACM Transactions on Audio, Speech, and Language Processing (TASLP)*. 2021.
- Jia-Chen Gu, Zhen-Hua Ling, Quan Liu, Zhigang Chen, Xiaodan Zhu. Filtering before Iteratively Referring for Knowledge-Grounded Response Selection in Retrieval-Based Chatbots. In *Findings of the Association for Computational Linguistics: EMNLP 2020.* 2020.
- Jia-Chen Gu, Tianda Li, Quan Liu, Zhen-Hua Ling, Zhiming Su, Si Wei, Xiaodan Zhu. Speaker-Aware BERT for Multi-Turn Response Selection in Retrieval-Based Chatbots. In *Proceedings of the 29th ACM International Conference on Information and Knowledge Management (CIKM)*. 2020.
- Jia-Chen Gu, Zhen-Hua Ling, Quan Liu. Utterance-to-Utterance Interactive Matching Network for Multi-Turn Response Selection in Retrieval-Based Chatbots. *IEEE/ACM Transactions on Audio, Speech, and Language Processing (TASLP)*. 2020.
- Jia-Chen Gu, Tianda Li, Quan Liu, Xiaodan Zhu, Zhen-Hua Ling, Yu-Ping Ruan. Pre-Trained and Attention-Based Neural Networks for Building Noetic Task-Oriented Dialogue Systems. In *Proceedings of the 34th AAAI Conference on Artificial Intelligence Workshop on the 8th Dialog System Technology Challenge (DSTC)*. 2020.
- Jia-Chen Gu, Zhen-Hua Ling, Xiaodan Zhu, Quan Liu. Dually Interactive Matching Network for Personalized Response Selection in Retrieval-Based Chatbots. In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2019.
- Jia-Chen Gu, Zhen-Hua Ling, Quan Liu. Interactive Matching Network for Multi-Turn Response Selection in Retrieval-Based Chatbots. In *Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM)*. 2019.
- Jia-Chen Gu, Zhen-Hua Ling, Yu-Ping Ruan, Quan Liu. Building Sequential Inference Models for End-to-End Response Selection. In *Proceedings of the 33rd AAAI Conference on Artificial Intelligence Workshop on the 7th Dialog System Technology Challenge (DSTC)*. 2019.
- Jia-Chen Gu, Zhen-Hua Ling, Nitin Indurkhya. A Study on Improving End-to-End Neural Coreference Resolution. In *Proceedings of the 17th China National Conference on Computational Linguistics (CCL)*. 2018.
- Chao-Hong Tan, **Jia-Chen Gu**, Zhen-Hua Ling. Is ChatGPT a Good Multi-Party Conversation Solver?. In *Findings of the Association for Computational Linguistics: EMNLP 2023*. 2023.
- Yue Chen, Tian-Wei He, Hong-Bin Zhou, **Jia-Chen Gu**, Heng Lu, Zhen-Hua Ling. Symbolization, Prompt, and Classification: A Framework for Implicit Speaker Identification in Novels. In *Findings of the Association for Computational Linguistics: EMNLP 2023*. 2023.
- Jun-Yu Ma, **Jia-Chen Gu**, Jiajun Qi, Zhen-Hua Ling, Quan Liu, Xiaoyi Zhao. USTC-NELSLIP at SemEval-2023 Task 2: Statistical Construction and Dual Adaptation of Gazetteer for Multilingual Complex NER. In *Proceedings of the 17th International Workshop on Semantic Evaluation*. 2023.
- Caiyuan Chu, Ya Li, Yifan Liu, **Jia-Chen Gu**, Quan Liu, Yongxin Ge, Guoping Hu. Multi-Stage Coarse-to-Fine Contrastive Learning for Conversation Intent Induction. In *Proceedings of Workshop on the 11th Dialog System Technology Challenge*. 2023.
- Jun-Yu Ma, Beiduo Chen, **Jia-Chen Gu**, Zhen-Hua Ling, Wu Guo, Quan Liu, Zhigang Chen, Cong Liu. Wider & Closer: Mixture of Short-channel Distillers for Zero-shot Cross-lingual Named Entity Recognition. In *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing*. 2022.
- Chao-Hong Tan, **Jia-Chen Gu**, Chongyang Tao, Zhen-Hua Ling, Can Xu, Huang Hu, Xiubo Geng, Daxin Jiang. TegTok: Augmenting Text Generation via Task-specific and Open-world Knowledge. In *Findings of the Association for Computational Linguistics: ACL 2022*. 2022.
- Tianda Li, **Jia-Chen Gu**, Zhen-Hua Ling, Quan Liu. Conversation- and Tree-Structure Losses for Dialogue Disentanglement. In *Proceedings of the Second DialDoc Workshop on Document-grounded Dialogue and Conversational Question Answering*. 2022. **Best Paper Award**.
- Tianda Li, Jia-Chen Gu, Hui Liu, Quan Liu, Zhen-Hua Ling, Zhiming Su, Xiaodan Zhu. Have You Made A Decision? Where? A Pilot Study on Interpretability of Polarity Analysis Based on Advising Problem. In *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. 2021.

- Chao-Hong Tan, Xiaoyu Yang, Zi'ou Zheng, Tianda Li, Yufei Feng, **Jia-Chen Gu**, Quan Liu, Dan Liu, Zhen-Hua Ling, Xiaodan Zhu. Learning to Retrieve Entity-Aware Knowledge and Generate Responses with Copy Mechanism for Task-Oriented Dialogue Systems. In *Proceedings of the 35th AAAI Conference on Artificial Intelligence Workshop on the 9th Dialog System Technology Challenge (DSTC)*. 2021.
- Hui Liu, Zhan Shi, **Jia-Chen Gu**, Quan Liu, Si Wei, Xiaodan Zhu. End-to-End Transition-Based Online Dialogue Disentanglement. In *Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI)*. 2020.
- Yu-Ping Ruan, Zhen-Hua Ling, **Jia-Chen Gu**, Quan Liu. Fine-Tuning BERT for Schema-Guided Zero-Shot Dialogue State Tracking. In *Proceedings of the 34th AAAI Conference on Artificial Intelligence Workshop on the 8th Dialog System Technology Challenge (DSTC)*. 2020.
- Yu-Ping Ruan, Zhen-Hua Ling, Xiaodan Zhu, Quan Liu, **Jia-Chen Gu**. Generating Diverse Conversation Responses by Creating and Ranking Multiple Candidates. *Computer Speech and Language*. 2020.
- Yu-Ping Ruan, Zhen-Hua Ling, Quan Liu, **Jia-Chen Gu**, Xiaodan Zhu. Promoting Diversity for End-to-End Conversation Response Generation. In *Proceedings of the 33rd AAAI Conference on Artificial Intelligence Workshop on the 7th Dialog System Technology Challenge (DSTC)*. 2019.

# **TUTORIALS**

- Ningyu Zhang, **Jia-Chen Gu**, Yunzhi Yao, Zhen Bi, Shumin Deng. "Knowledge Editing for Large Language Models" at AAAI 2024.
- Jia-Chen Gu, Zhuosheng Zhang, Zhen-Hua Ling. "Learning WHO Saying WHAT to WHOM in Multi-Party Conversations" at IJCNLP-AACL 2023.
- Jia-Chen Gu. "Learning WHO Saying WHAT to WHOM in Multi-Party Conversations" at CCKS 2023.

#### **TALKS**

- 2024.02: Guest lecture "Pre-trained Large Language Models" at UCLA CS162.
- 2023.12: Guest lecture "Multi-Party Conversational AI" at Zhejiang University.
- 2023.09: "Learning Conversation Structures for Multi-Party Conversations" at MLNLP 2023.
- 2023.05: "Learning Conversation Structures for Multi-Party Conversations" at YSSNLP 2023.
- 2022.11: "Multi-Party Conversation Understanding and Generation" at CCF and CAS-ICT.
- 2022.07: "Multi-Party Conversation Understanding and Generation" at MLNLP.

#### SHARED TASKS

- 2022, Rank first on both subtasks of Track 2 in the 11th Dialog System Technology Challenges (DSTC 11).
- 2020, Rank second under objective metrics and fourth under subjective metrics on Track 1 in the 9th Dialog System Technology Challenges (DSTC 9), as the team leader.
- 2019, Rank first, first, third and fourth on subtasks of Track 2 in the 8th Dialog System Technology Challenges (DSTC 8), as the first author.
- 2018, Rank second on a subtask of Track 1 in the 7th Dialog System Technology Challenges (DSTC 7), as the first author.

# **SERVICE**

- Area Chair for Conferences: ACL, NAACL.
- Reviewer for Conferences: ACL, EMNLP, NAACL, EACL, ACL Rolling Review, COLM, AAAI, IJCAI, COLM, NLPCC, CCKS, Canadian AI.
- Reviewer for Journals: TASLP, TOIS, TALLIP, CIM, IPM.