

JIANGMING LIU

School of Information Science and Engineering, Yunnan University

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EMPLOYMENT

- Associate Professor** Yunnan University Feb. 2023 – Present
My research interests include natural language processing, deep learning algorithms, large language models, its associated computational linguistics and its downstream applications.
- Senior Research Scientist** Tencent Sep. 2021 — Jan. 2023
Research includes large language models, and recommendation and advertising systems.
- Research Assistant** Singapore University of Technology and Design May 2015 – Aug. 2017
Research includes syntactic parsing and text generation.

EDUCATION

- DPhil computer science** University of Edinburgh, UK Sep. 2017 – May 2021
Transmodal H2020 fund by European Research Council and Bloomberg fund (full scholarship) for DPhil research.
Thesis title: Understanding and generating language with discourse representation structures.
- MSc computer science** Beijing Jiaotong University, China Sep. 2012 – Mar. 2015
National Scholarship for Graduate Students.
Thesis title: Hierarchical Phrase-Based Statistical Machine Translation Incorporating Japanese Case Grammar
- BEng computer science** Beijing Jiaotong University, China Sep. 2008 – Jun. 2012
Scholarship from Beijing jiaotong University.

TEACHING

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|-----------------------------------|-----------------------|---------------|
| Operating Systems and Experiments | 2021, 22. Autumn term | undergraduate |
| Software Development Process | 2022, 23. Autumn term | undergraduate |

RESEARCH

Grants:

- PI. Yunnan Province Science and Technology Department grant. Research on Large-Scale Language Models for Multi-Dimensional Securities Market Analysis (RMB 100K). Mar. 2024 – Feb. 2027.
- PI. Yunnan Province Science and Technology Department grant. A large-scale language model based on heterogeneous knowledge (RMB 700K). Jan. 2024 – Dec. 2028.
- PI. Yunnan University grant. Donglu Talent Program (RMB 1M). Feb. 2023 – Jan. 2029.

Research Students:

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|----------------|-----|-------------------------|
| Guangbin Zhang | MSc | advisor (Sep. 2024 – .) |
| Yulin Dou | MSc | advisor (Sep. 2024 – .) |
| Jiahao Xiao | MSc | advisor (Sep. 2023 – .) |
| Xuankang Zhang | MSc | advisor (Sep. 2023 – .) |
| Zheyang Luo | MSc | advisor (Sep. 2023 – .) |

RESEARCH SEMINAR

Invited Talks:

Oct. 2023	Beijing University of Posts and Telecommunications	Text Understanding and Generation in DRT
Oct. 2023	Peking University	Text Understanding and Generation in DRT
Jun. 2023	Yunnan University	Text Understanding and Generation in DRT
Apr. 2023	Keynote at CCF-NLP	Text Understanding and Generation in DRT

PROFESSIONAL SERVICE

Reviewer for journals:

Springer Nature: Language Resources and Evaluation (2025), Computational Linguistics (2022), ACM Transactions on Asian and Low-Resource Language Information Processing (2018, 19), IEEE Transactions on Big Data (2023), ISA Transactions (2021)

PC for conferences:

ACL (2018, 19, 20, 21, 22, 23, 24, 25), EMNLP (2018, 19, 20, 21, 22, 23, 24), NAACL (2021, 22, 23, 24), COLING (18, 20, 22[area chair for syntax], 24, 25), EACL (2019, 21), CoNLL (2024, 25), AAAI (2023, 24).

Workshops:

ACL student research workshop (2020 [PC student chair])

PUBLICATIONS

Journal articles:

Jiangming Liu, Shay B Cohen, Mirella Lapata, Johan Bos. In *Computational Linguistics*. 2021.
Jiangming Liu, Yue Zhang. In-order transition-based constituent parsing. In *Transactions of the Association for Computational Linguistics*. 2017.
Jiangming Liu, Yue Zhang. Shift-Reduce Constituent Parsing with Neural Lookahead Features. In *Transactions of the Association for Computational Linguistics*. 2017.
JinAn Xu, **Jiangming Liu**, Yujie Zhang. Word Similarity Computing Based on Hybrid Hierarchical Structure by HowNet. In *Information Science and Engineering*. 2015.
Jiangming Liu, JinAn Xu, Yujie Zhang. Summarization based on hidden topic Markov model with multi-features. In *Acta Scientiarum Naturalium Universitatis Pekinensis*. 2014.

Conference proceedings:

Jiahao Xiao, **Jiangming Liu**. Adaptive Federated Distillation for Multi-Domain Non-IID Textual Data. In *Proceedings of International Joint Conference on Neural Networks (IJCNN)*. 2025.
Zheyang Luo, **Jiangming Liu**. QuanSIRA: The Quantitative Investment Risk Modeling in Stock Markets with Pre-trained Language Models. In *Proceedings of International Joint Conference on Neural Networks (IJCNN)*. 2025.
Zheyang Luo, Guangbin Zhang, Jiahao Xiao, Xuankang Zhang, Yulin Dou, **Jiangming Liu**. FMD-Mllama at the Financial Misinformation Detection Challenge Task: Multimodal Reasoning and Evidence Generation. In *Proceedings of the Joint Workshop of the 9th Financial Technology and Natural Language Processing, the 6th Financial Narrative Processing, and the 1st Workshop on Large Language Models for Finance and Legal*. 2025
Yanjie Gou, Yuanzhou Yao, Zhao Zhang, Yiqing Wu, Yi Hu, Fuzhen Zhuang, **Jiangming Liu**, Yongjun Xu. Controllable Multi-Behavior Recommendation for In-Game Skins with Large Sequential Model. In *Proceedings of the 30th Conference on Knowledge Discovery and Data Mining (SIGKDD)*. 2024
Jiangming Liu. Model-agnostic cross-lingual training for discourse representation structure parsing. In *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (COLING-LREC)*. 2024.
Jiangming Liu. Soft well-formed semantic parsing with score-based selection. In *Proceedings of*

the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (COLING-LREC). 2024.

Hang Du, Sicheng Zhang, Binzhu Xie, Guoshun Nan, Jiayang Zhang, Junrui Xu, Hangyu Liu, Sicong Leng, **Jiangming Liu**, Hehe Fan, Dajiu Huang, Jing Feng, Linli Chen, Can Zhang, Xuhuan Li, Hao Zhang, Jianhang Chen, Qimei Cui, Xiaofeng Tao. Uncovering What, Why and How: A Comprehensive Benchmark for Causation Understanding of Video Anomaly. In *Proceedings of the Conference on Computer Vision and Pattern Recognition (CVPR)*. 2024.

Xinge Ma, **Jiangming Liu**, Jin Wang, Xuejie Zhang. Fedid: Federated interactive distillation for large-scale pretraining language models. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2023

Jianyong Chen, **Jiangming Liu**, Jin Wang, Xuejie Zhang. Semantic candidate retrieval for few-shot entity linking. In *Proceedings of International Conference on Natural Language Processing and Chinese Computing (NLPCC)*. 2023

Wenjie Li, Qiaolin Xia, Junfeng Deng, Hao Cheng, **Jiangming Liu**, Kouying Xue, Yong Cheng, Shu-Tao Xia. VFed-SSD: Towards Practical Vertical Federated Advertising. In *Proceedings of the Trustworthy Federated Learning workshop of International Joint Conference on Artificial Intelligence (FL-IJCAI)*. 2022.

Jiangming Liu, Shay B Cohen, Mirella Lapata. Text generation from discourse representation structures. In *Proceedings of 2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*. 2021.

Jiangming Liu, Shay B Cohen, Mirella Lapata. Dscorer: A fast evaluation metric for discourse representation structure parsing. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*. 2020.

Qiankun Fu, Yue Zhang, **Jiangming Liu**, Meishan Zhang. DRTS Parsing with Structure-Aware Encoding and Decoding. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*. 2020.

Matt Gardner, Yoav Artzi, Victoria Basmov, Jonathan Berant, Ben Bogin, Sihao Chen, Pradeep Dasigi, Dheeru Dua, Yanai Elazar, Ananth Gottumukkala, Nitish Gupta, Hannaneh Hajishirzi, Gabriel Ilharco, Daniel Khashabi, Kevin Lin, **Jiangming Liu**, Nelson F. Liu, Phoebe Mulcaire, Qiang Ning, Sameer Singh, Noah A. Smith, Sanjay Subramanian, Reut Tsarfaty, Eric Wallace, Ally Zhang, Ben Zhou. Evaluating Models' Local Decision Boundaries via Contrast Sets. In *Findings of the Association for Computational Linguistics (EMNLP)*. 2020.

Jiangming Liu, Matt Gardner, Shay B. Cohen, Mirella Lapata. Multi-Step Inference for Reasoning Over Paragraphs. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2020.

Jiangming Liu, Shay B Cohen, Mirella Lapata. Discourse representation parsing for sentences and documents. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL)*. 2019

Jiangming Liu, Shay B Cohen, Mirella Lapata. Discourse representation structure parsing with recurrent neural networks and the transformer model. In *Proceedings of the shared task on semantic parsing (IWCS)*. 2019.

Jiangming Liu, Shay B Cohen, Mirella Lapata. Discourse representation structure parsing. In *Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (ACL)*. 2018

Qi Liu, Yue Zhang, **Jiangming Liu**. Learning domain representation for multi-domain sentiment classification. In *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*. 2018.

Jiangming Liu, Yue Zhang. Encoder-Decoder Shift-Reduce Syntactic Parsing. In *Proceedings of the 15th International Conference on Parsing Technologies (IWPT)*. 2017.

Jiangming Liu, Yue Zhang. Attention modeling for targeted sentiment. In *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL)*. 2017.

Jiangming Liu, Yue Zhang. An empirical comparison between n-gram and syntactic language models for word ordering. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. 2015.

JinAn Xu, **Jiangming Liu**, Yufeng Chen, Yujie Zhang, Fang Ming, Shaotong Li. Integrating Case Frame into Japanese to Chinese Hierarchical Phrase-based Translation Model. In *Proceedings of the 1st Workshop on Semantics-Driven Statistical Machine Translation (S2MT)*. 2015.

Jiangming Liu, JinAn Xu, Jun Xie, Yujie Zhang. Case Frame Constraints for Hierarchical Phrase-Based Translation: Japanese-Chinese as an Example. In *Proceedings of Natural Language Processing and Chinese Computing (NLPCC)*. 2014.

Jiangming Liu, Jinan Xu, Yujie Zhang. An approach of hybrid hierarchical structure for word similarity computing by HowNet. In *Proceedings of the Sixth International Joint Conference on Natural Language Processing (IJCNLP)*. 2013.