# Meng Jiang, Ph.D.

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## Work Experience

| | |
|---|---|
| **Associate Professor with Tenure** | 2023 – *present* |
| **Frank M. Freimann Collegiate Professor** | 2025 – *present* |
| **Lucy Family Institute Fellow** | 2024 – *present* |
| **Director, Foundation Models and Applications Lab** | 2025 – *present* |
| **Program Chair, ND-IBM Tech Ethics Lab** | 2025 – *present* |
| **Assistant Professor** | 2017 – 2023 |
| University of Notre Dame | |
| Department of Computer Science and Engineering | |
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| **Amazon Scholar** | 2025 – *present* |
| **Amazon Visiting Academics** | 2023 – 2025 |
| Amazon | |
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| **Postdoctoral Research Associate** | 2015 – 2017 |
| University of Illinois at Urbana-Champaign | |
| Department of Computer Science | |

## Education

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| **Ph.D.** | Tsinghua University, Computer Science and Technology<br>Graduated with Excellence Awards | 2015 |
| **B.Eng.** | Tsinghua University, Computer Science and Technology | 2010 |

## Honors and Awards

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|---|---|
| CSEE JPES 10th Anniversary High Impact Paper | 2025 |
| Editor's Pick from ACM TODAES | 2025 |
| EMNLP Outstanding Paper | 2023 |
| IEEE Senior Member & ACM Senior Member | 2023 |
| NSF CAREER Award | 2022 |
| ACM CIKM Conference Best Reviewer | 2021 |
| ACM SIGSOFT (ICSE) Distinguished Paper | 2021 |
| ACM SIGKDD-DLG Workshop Best Paper | 2020 |
| ISDSA Annual Meeting Best Paper | 2020 |
| ACM WSDM Conference Outstanding PC | 2020 |
| Notre Dame International Faculty Research Award | 2019 |
| ACM SIGKDD Conference "Best of KDD 2014" | 2014 |

## Scholar Pages

Google Scholar: `https://scholar.google.com/citations?user=LZIPfCkAAAAJ`

| | |
|---|---|
| Citations | 12,786 |
| h-index | 58 |
| i10-index | 152 |

DBLP: `https://dblp.org/pers/hd/j/Jiang_0001:Meng`

## Grants and Gifts

External funds: Total amount: $8,205,539; Total credit: **$4,166,529**

"Probing-Guided Robust Unlearning"
January 1, 2026 – June 30, 2027
Funding Vehicle: Open Philanthropy and Good Ventures Foundation
Amount: **$281,628**
Role: Sole PI

"III: Small: Intelligent Scientific Text Analytics with Knowledge-Augmented Abductive Reasoning"
June 1, 2023 – May 31, 2027
Funding Vehicle: National Science Foundation (NSF)
Amount: **$599,962**
Role: Sole PI

"REU: III: Small: Intelligent Scientific Text Analytics with Knowledge-Augmented Abductive Reasoning"
June 1, 2023 – May 31, 2027
Funding Vehicle: National Science Foundation (NSF)
Amount: **$16,000**
Role: Sole PI

"CAREER: Synergistic Approaches for Specialized Intelligent Assistance"
March 15, 2022 – February 28, 2027
Funding Vehicle: National Science Foundation (NSF)
Amount: **$549,969**
Role: Sole PI

"III: Small: Comprehensive Methods to Learn to Augment Graph Data"
March 1, 2022 – February 28, 2027
Funding Vehicle: National Science Foundation (NSF)
Amount: **$499,999**
Role: Sole PI

"REU: III: Small: Comprehensive Methods to Learn to Augment Graph Data"
March 1, 2022 – February 28, 2027
Funding Vehicle: National Science Foundation (NSF)
Amount: **$16,000**
Role: Sole PI

"Benchmark: Whether LLM Agents Can Evaluate, Replicate, and Independently Conduct Research Processes"
September 1, 2024 – June 30, 2027
Funding Vehicle: Center for Open Science
Amount: **$100,000**
Role: ND Lead PI

"CBET: Developing and Understanding Thermally Conductive Polymers by Combining Molecular Simulation, Machine Learning and Experiment"
January 15, 2024 – December 31, 2026
Funding Vehicle: National Science Foundation (NSF)
Amount: $405,726 (Credit: 49%; **$198,235**)
Role: Co-PI
Other PI: Tengfei Luo (ND; Lead PI)

"FW-HTF-RM: Bridging AI Inequality in Digitally-Mediated Gig Work"
October 1, 2023 – September 30, 2027
Funding Vehicle: National Science Foundation (NSF)
Amount: $999,980 (Credit: 26%; **$255,588**)
Role: Co-PI
Other PI: Toby Li (ND; Lead PI), Tamara Kay (ND), Jay Brockman (ND), Yang Yang (ND)

"RI: Small: Learning to Retrieve Structured Information for Summarization and Translation of Unstructured Text"
July 1, 2022 – June 30, 2026
Funding Vehicle: National Science Foundation (NSF)
Amount: $499,982 (Credit: 50%; **$249,991**)
Role: Co-PI
Other PI: David Chiang (ND; Lead PI)

"REU: RI: Small: Learning to Retrieve Structured Information for Summarization and Translation of Unstructured Text"
July 1, 2022 – June 30, 2026
Funding Vehicle: National Science Foundation (NSF)
Amount: **$16,000** (Credit: 50%; **$8,000**)
Role: Co-PI
Other PI: David Chiang (ND; Lead PI)

"Towards Third Generation Network Intrusion Detection and Prevention Systems"
June 1, 2022 – May 31, 2025 (*Completed*)
Funding Vehicle: Office of Naval Research (ONR)
Amount: **$459,251**
Role: Sole PI

"CRII: III: Beyond Similarity Learning: Complementarity Learning for Contextual Behavior Modeling"
October 1, 2019 – September 30, 2021 (*Completed*)
Funding Vehicle: National Science Foundation (NSF)
Amount: **$174,910**
Role: Sole PI

"RETTL: Collaborative Research: Advancing STEM Online Learning by Augmenting Accessibility with Explanatory Captions and AI"
September 15, 2021 – August 31, 2025 (*Completed*)
Funding Vehicle: National Science Foundation (NSF)
Amount: $849,994 (Credit: 22%; **$190,070**)
Role: ND Lead PI
Other PIs: Yun Huang (UIUC; Lead PI), Lawrance Angrave (UIUC), Qi Wang (Gallaudet University)

"SHF: Medium: Collaborative Research: Semantically-Enhanced Software Traceability for Supporting Human-Centric Tasks"
August 15, 2019 – July 31, 2025 (*Completed*)
Funding Vehicle: National Science Foundation (NSF)
Amount: $1,035,030 (Credit: 33%; **$341,559**)
Role: Co-PI
Other PIs: Jane Cleland-Huang (ND; Lead PI) and Ron Metoyer (ND)

"AnalytiXIN Manufacturing Data Asset Research"
May 16, 2022 – June 30, 2024 (*Completed*)
Funding Vehicle: Central Indiana Corporate Partnership (CICP)
Amount: $1,058,333 (Credit: 8%; **$84,666**)
Role: Co-PI
Other PIs: Robert Landers (ND; Lead PI) and others

"Representation Learning for Modeling and Predicting User Engagement and Propensity for Conversion Through the Engagement Funnel"
January 21, 2019 – May 20, 2020 (*Completed*)
Funding Vehicle: Conde Nast
Amount: $148,400 (Credit: 50%; **$74,200**)
Role: Co-PI
Other PI: Nitesh V. Chawla (ND; Lead PI)

"Advancing Real-Time Suicide Risk Detection Through the Digital Phenotyping Smartphone Application Screenomics"
March 4, 2022 – February 29, 2024 (*Completed*)
Funding Vehicle: National Institutes of Health (NIH)
Amount: $430,375 (Credit: 3.25%; **$14,001**)
Role: Co-Investigator
PIs: Brooke Ammerman and Ross Jacobucci (ND Psychology)

Event Organizing Fund: "PhysicalAI Faculty Working Group"
January–May, 2026
Funding Vehicle: Data, AI, and Computing (DAC) Initiative at ND
Amount: $10,000

Event Organizing Fund: "Midwest Speech and Language Days 2025"
April 15–16, 2025 (*Completed*)
Funding Vehicles: Multiple
Amount: $23,000 (Credit: 50%; **$11,500**)
Other PI: David Chiang (ND)

Research Credits: "Inference-Time Safety Calibration for Specialized AI Agents"

June 30, 2025 – June 30, 2026
Funding Vehicle: OpenAI Researcher Access Program
Amount: **$1,000**

Research Credits: "Machine Unlearning for GenAI Safety"
June 24, 2024 – December 24, 2024 (*Completed*)
Funding Vehicle: OpenAI Researcher Access Program
Amount: **$10,000**

Unrestricted Gift: "Automated Graph Data Augmentation"
September 28, 2021
Funding Vehicle: Amazon
Amount: **$20,000**

Unrestricted Gift: "Augmenting Graph Data with Sequence Predictor"
July 1, 2020
Funding Vehicle: Snap Inc.
Amount: **$10,000**

Internal Fund: "Machine Learning Methods for Handling Nonlinear Relationships in Psychometric Models"
June 1, 2022 – August 15, 2023 (*Completed*)
Funding Vehicle: Lucy Family Institute for Data & Society
Amount: $31,000 (Credit: 33%; **$10,230**)
Role: Co-PI
Other PIs: Johnny Zhang (ND Psychology), Jun Li (ND ACMS)

Internal Fund: "Explaining Recommender Systems with Counterfactual Examples"
January 1, 2022 – December 31, 2022 (*Completed*)
Funding Vehicle: Notre Dame International - Asia Collaboration Grant
Amount: **$8,400**
Role: Sole PI

Internal Fund: "Digital Empires: Structured Biographical and Social Network Analysis of Early Chinese Empires"
May 1, 2019 – August 31, 2021 (*Completed*)
Funding Vehicle: Notre Dame International - Faculty Research Award
Amount: $43,811 (Credit: 75%; **$33,281**)
Role: ND CSE Lead PI
Other PI: Liang Cai (ND History)

*(@ indicates supervised graduate students or postdocs. * indicates supervised undergraduate and highschool students.)*

## Publications

*Conference Papers/Presentations*

C128 @Liu, G., Chen, J., @Zhu, Y., Sun, M., Luo, T., Chawla, N.V., **Jiang, M.** "Graph Diffusion Transformers are In-Context Molecular Designers", in Proceedings of *International Conference on Learning Representations* (ICLR), 2026.

C127 *Yan, H., @Liu, Z., **Jiang, M.** "Dual-Space Smoothness for Robust and Balanced LLM Unlearning", in Proceedings of *International Conference on Learning Representations* (ICLR), 2026.

C126 Agrawal, L.A., Tan, S., Soylu, D., @Ziems, N., Khare, R., Opsahl-Ong, K., Singhvi, A., Shandilya, H., Ryan, M.J., **Jiang, M.**, Potts, C., Sen, K., Dimakis, A., Stoica, I., Klein, D., Zaharia, M., Khattab, O. "GEPA: Reflective Prompt Evolution Can Outperform Reinforcement Learning", in Proceedings of *International Conference on Learning Representations* (ICLR), 2026.

C125 @Yu, M., @Nguyen, B., *Zino, O., **Jiang, M.** "Context Selection and Rewriting for Video-based Educational Question Generation", in the *Symposium on Educational Advances in Artificial Intelligence* (EAAI), 2026.

C124 Luo, T., Xu, J., Suleiman, A., @Liu, G., Zhang, R., **Jiang, M.**, Guo, R. "High-performance Polymeric Gas Separation Membrane Designed by Explainable Graph Augmented and Imbalanced Machine Learning", in the *International Symposium Frontiers in Polymer Science*, 2026.

C123 @Zhu, Y., @Liu, G., @Inae, G., Luo, T., **Jiang, M.** "Learning Repetition-Invariant Representations for Polymer Informatics", in *Annual Conference on Neural Information Processing Systems* (NeurIPS), 2025.

C122 *He, Y., @Zeng, Q., **Jiang, M.** "Pre-trained Models Perform the Best When Token Distributions Follow Zipf's Law", in *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2025.

C121 @Dang, H., Liu, T., Wu, Z., Yang, J., Jiang, H., Yang, T., Chen, P., Wang, Z., Wang, H., Li, H., Yin, B., **Jiang, M.** "Improving Large Language Models Function Calling and Interpretability via Guided-Structured Templates", in *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2025.

C120 Soós, D., **Jiang, M.**, Wu, J. "Can LLMs Beat Humans on Discerning Human-written and LLM-generated Science News?", in *ACM Conference on Hypertext and Social Media* (HT), 2025.

C119 @Zeng, Q., *Bai, Y., @Tan, Z., @Wu, Z., Feng, S., **Jiang, M.** "CodeTaxo: Enhancing Taxonomy Expansion with Limited Examples via Code Language Prompts", in *Findings of the Association for Computational Linguistics* (ACL), 2025.

C118 @Nguyen, B., *Du, T., @Yu, M., Angrave, L., **Jiang, M.** "QG-SMS: Enhancing Test Item Analysis via Student Modeling and Simulation", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025.

C117 @Lu, Y., @Ziems, N., @Dang, H., **Jiang, M.** "Optimizing Decomposition for Optimal Claim Verification", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025.

C116 @Liu, Z., Dou, G., Yuan, X., Zhang, C., @Tan, Z., **Jiang, M.** "Modality-Aware Neuron Pruning for Unlearning in Multimodal Large Language Models", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025.

C115 @Liu, Z., Maharjan, S., Wu, F., Parikh, R., Bayar, B., Sengamedu, S., **Jiang, M.** "Disentangling Biased Knowledge from Reasoning in Large Language Models via Machine Unlearning", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025. (Oral)

C114 @Tan, Z., Li, Z., Liu, T., Wang, H., Yun, H., Zeng, M., Chen, P., @Zhang, Z., Gao, Y., Wang, R., Nigam, P., Yin, B., **Jiang, M.** "Aligning Large Language Models with Implicit Preferences from User-Generated Content", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025.

C113 @Wu, Z., @Zeng, Q., @Zhang, Z., @Tan, Z., Shen, C., **Jiang, M.** "Enhancing Mathematical Reasoning in LLMs by Stepwise Correction", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025. (Oral)

C112 Mo, F., Gao, Y., Meng, C., Liu, X., Wu, Z., Mao, K., Wang, Z., Chen, P., Li, Z., Li, X., Yin, B., **Jiang, M.** "UniConv: Unifying Retrieval and Response Generation for Large Language Model in Conversation", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025.

C111 Xu, Z., Wang, Y., Huang, Y., Chen, X., Zhao, J., **Jiang, M.**, Zhang, X. "Cross-Lingual Pitfalls: Automatic Probing Cross-Lingual Weakness of Multilingual Large Language Models", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2025.

C110 Xu, G., Duan, Y., @Liu, Z., Li, X., **Jiang, M.**, Lemmon, M., Jin, W., Shi, Y. "Incorporating Rather Than Eliminating: Achieving Fairness for Skin Disease Diagnosis Through Group-Specific Experts", in Proceedings of *Medical Image Computing and Computer Assisted Intervention* (MICCAI), 2025.

C109 @Liu, Z., Dou, G., @Jia, M., @Tan, Z., @Zeng, Q., Yuan, Y., **Jiang, M.** "Protecting Privacy in Multimodal Large Language Models with MLLMU-Bench", in Proceedings of *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL), 2025.

C108 @Zhang, Z., Li, S., Zhang, Z., Liu, X., Jiang, H., Tang, X., Gao, Y., Li, Z., Wang, H., @Tan, Z., Li, Y., Yin, Q., Yin, B., **Jiang, M.** "IHEval: Evaluating Language Models on Following the Instruction Hierarchy", in Proceedings of *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL), 2025. (Oral)

C107 *Zhu, Z., @Jia, M., @Zhang, Z., *Li, L., **Jiang, M.** "MultiChartQA: Benchmarking Vision-Language Models on Multi-Chart Problems", in Proceedings of *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL), 2025.

C106 @Lu, Y., Wang, D., Li, T., Jiang, D., Khudanpur, S., **Jiang, M.**, Khashabi, D. "Benchmarking Language Model Creativity: A Case Study on Code Generation", in Proceedings of *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL), 2025.

C105 @Liu, G., Sun, M., Matusik, W., **Jiang, M.**, Chen, J. "Multimodal Large Language Models for Inverse Molecular Design with Retrosynthetic Planning", in Proceedings of *International Conference on Learning Representations* (ICLR), 2025.

C104 @Liu, G., Seal, S., Arevalo, J., Liang, Z., Carpenter, A., **Jiang, M.**, Singh, S. "Learning Molecular Representation in a Cell", in Proceedings of *International Conference on Learning Representations* (ICLR), 2025.

C103 Szymanski, A., @Ziems, N., Li, T., **Jiang, M.**, Metoyer, R. "Limitations of the LLM-as-a-Judge Approach for Evaluating LLM Outputs in Expert Knowledge Tasks", in Proceedings of *ACM Conference on Intelligent User Interfaces* (IUI), 2025.

C102 @Liu, G., Yang, F., Jiao, Y., Garakani, A. B., Tong, T., Gao, Y., **Jiang, M.** "Learning Attribute as Explicit Relation for Sequential Recommendation", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2025.

C101 @Inae, E., @Liu, G., **Jiang, M.** "Motif-aware Attribute Masking for Molecular Graph Pre-training", in Proceedings of *Learning on Graphs Conference* (LoG), 2024.

C100 Jin, Y., and many others including **Jiang, M.** "ShopBench: A Massive Multi-Task Online Shopping Benchmark for Large Language Models", in Proceedings of *Conference on Neural Information Processing Systems* (NeurIPS), 2024. (Dataset & Benchmark Track)

C99 @Liu, G., Xu, J., Luo, T., **Jiang, M.** "Graph Diffusion Transformer for Multi-Conditional Molecular Generation", in Proceedings of *Conference on Neural Information Processing Systems* (NeurIPS), 2024. (Oral)

C98 @Wu, Z., @Zeng, Q., @Zhang, Z., @Tan, Z., Shen, C., **Jiang, M.** "Large Language Models Can Self-Correct with Key Condition Verification", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C97 @Tan, Z., @Liu, Z., **Jiang, M.** "Personalized Pieces: Efficient Personalized Large Language Models through Collaborative Efforts", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C96 @Tan, Z., @Zeng, Q., Tian, Y., @Liu, Z., Yin, B., **Jiang, M.** "Democratizing Large Language Models via Personalized Parameter-Efficient Fine-tuning", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C95 @Zhang, Z., Ge, T., Liang, Z., @Yu, W., Yu, D., @Jia, M., Yu, D., **Jiang, M.** "Learn Beyond The Answer: Training Language Models with Reflection for Mathematical Reasoning", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C94 Kou, Z., Pei, S., **Jiang, M.**, Zhang, X. "RAt: Injecting Implicit Bias for Text-To-Image Prompt Refinement Models", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C93 @Nguyen, B., @Yu, M., Huang, Y., **Jiang, M.** "Reference-based Metrics Disprove Themselves in Question Generation", in Findings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C92 @Ziems, N., @Zhang, Z., **Jiang, M.** "TOWER: Tree Organized Weighting for Evaluating Complex Instructions", in Findings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2024.

C91 @Zeng, Q., *Bai, Y., @Tan, Z., Feng, S., Liang, Z., @Zhang, Z., **Jiang, M.** "Chain-of-Layer: Iteratively Prompting Large Language Models for Taxonomy Induction from Limited Examples", in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), 2024. (Acceptance rate 22.7% = 347/1531)

C90 Kou, Z., Tian, Y., **Jiang, M.**, Zhang, X. "FaDE: A Face Segment Driven Identity Anonymization Framework For Fair Face Recognition", in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), 2024. (Acceptance rate 22.7% = 347/1531)

C89 @Zhang, Z., Lee, D., Fang, Y., @Yu, W., @Jia, M., **Jiang, M.**, Barbieri, F. "PLUG: Leveraging Pivot Language in Cross-Lingual Instruction Tuning", in *Annual Meetings of the Association for Computational Linguistics* (ACL), 2024.

C88 @Liu, Z., Dou, G., @Tan, Z., Tian, Y., **Jiang, M.** "Towards Safer Large Language Models through Machine Unlearning", in Findings of *Annual Meetings of the Association for Computational Linguistics* (ACL), 2024.

C87 Sun, L., and many others including **Jiang, M.** "TrustLLM: Trustworthiness in Large Language Models", in Proceedings of *International Conference on Machine Learning* (ICML), 2024. (Position paper)

C86 Qin, R., Xia, J., Jia, Z., **Jiang, M.**, Abbasi, A., Zhou, P., Hu, J., Shi, Y. "Enabling On-Device Self-Supervised LLM Personalization with Selective Synthetic Data", in Proceedings of *Design Automation Conference* (DAC), 2024.

C85 @Wu, Z., **Jiang, M.**, Shen, C. "Instructing Large Language Models to Identify and Ignore Irrelevant Conditions", in Proceedings of *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL), 2024.

C84 *Kuang, Y., Lin, H., **Jiang, M.** "OpenFMNav: Towards Open-Set Zero-Shot Object Navigation via Vision-Language Foundation Models", in Findings of *Annual Conference of the North American Chapter of the Association for Computational Linguistics* (NAACL), 2024.

C83 @Wu, Z., **Jiang, M.**, Shen, C. "Get an A in Math: Progressive Rectification Prompting", in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), 2024. (Acceptance rate 23.8% = 2342/9862)

C82 @Yu, M., @Zhang, Z., @Yu, W., **Jiang, M.** "Pre-training Language Models for Comparative Reasoning", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2023. (Oral presentation)

C81 @Yu, W., **Jiang, M.**, Clark, P., Sabharwal, A. "IfQA: A Dataset for Open-domain Question Answering under Counterfactual Presuppositions", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2023. (Selected for **Outstanding Paper Award**)

C80 @Zhang, Z., Wang, S., @Yu, W., Xu, Y., Iter, D., @Zeng, Q., Liu, Y., Zhu, C., **Jiang, M.** "Auto-Instruct: Automatic Instruction Generation and Ranking for Black-Box Language Models", in Findings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2023.

C79 @Liu, G., @Inae, E., @Zhao, T., Xu, J., Luo, T., **Jiang, M.** "Data-Centric Learning from Unlabeled Graphs with Diffusion Model", in Proceedings of *Conference on Neural Information Processing Systems* (NeurIPS), 2023. (Acceptance rate 26.1% = 3222/12343)

C78 @Liu, G., @Zhao, T., @Inae, E., Luo, T., **Jiang, M.** "Semi-Supervised Graph Imbalanced Regression", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2023. (Acceptance rate 22.1% = 313/1416)

C77 @Ziems, N., @Yu, W., @Zhang, Z., **Jiang, M.** "Large Language Models are Built-in Autoregressive Search Engines", in Findings of *Annual Meeting of the Association for Computational Linguistics* (ACL), 2023.

C76 @Liu, G., **Jiang, M.** "Explaining AI-informed Network Intrusion Detection with Counterfactuals", in Proceedings of *IEEE International Conference on Computer Communications* (INFOCOM), 2023. (Poster)

C75 @Yu, W. Iter, D., Wang, S., Xu, Y., Ju, M., Sanyal, S., Zhu, C., Zeng, M., **Jiang, M.** "Generate rather than Retrieve: Large Language Models are Strong Context Generators", in Proceedings of *International Conference on Learning Representations* (ICLR), 2023.

C74 @Zhang, Z., @Yu, W., @Yu, M., Guo, Z., **Jiang, M.** "A Survey of Multi-task Learning in Natural Language Processing: Regarding Task Relatedness and Training Methods", in Proceedings of *Conference of the European Chapter of the Association for Computational Linguistics* (EACL), 2023.

C73 @Zhao, T., Tang, X., Zhang, D., Jiang, H., Rao, N., Song, Y., Agrawal, P., Subbian, K., Yin, B., **Jiang, M.** "AutoGDA: Automated Graph Data Augmentation for Node Classification", in Proceedings of *Learning on Graphs Conference* (LoG), 2022.

C72 @Zhang, Z., @Yu, W., Zhu, C., **Jiang, M.** "A Unified Encoder-Decoder Framework with Entity Memory", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2022. (Oral presentation)

C71 @Yu, W., Zhu, C., @Zhang, Z., Wang, S., Zhang, Z., Fang, Y., **Jiang, M.** "Retrieval Augmentation for Commonsense Reasoning: A Unified Approach", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2022.

C70 @Liu, G., @Zhao, T., Xu, J., Luo, T., **Jiang, M.** "Graph Rationalization with Environment-based Augmentations", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2022. (Research track; Acceptance rate 15.0% = 254/1695)

C69 Guo, X., @Zeng, Q., **Jiang, M.**, Yun, X., Long, B., Wu, L. "Automatic Controllable Product Copywriting for E-Commerce", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2022. (Applied Data Science track; Acceptance rate 25.9% = 195/753)

C68 @Zhao, T., @Liu, G., @Wang, D., @Yu, W., **Jiang, M.** "Learning from Counterfactual Links for Link Prediction", in Proceedings of *International Conference on Machine Learning* (ICML), 2022. (Acceptance rate 21.9% = 1235/5630)

C67 Lu, Q., Jiang, W., **Jiang, M.**, Hu, J., Shi, Y. "Hardware/Software Co-Exploration for Graph Neural Architectures on FPGAs", in Proceedings of *IEEE Computer Society Annual Symposium on VLSI* (ISVLSI), 2022.

C66 Li, T., Lu, Y., Clark, J., Chen, M., Cox, V., **Jiang, M.**, Yang, Y., Kay, T., Wood, D., Brockman, J. "A Bottom-Up End-User Intelligent Assistant Approach to Empower Gig Workers against AI Inequality", in Proceedings of *Symposium on Human-Computer Interaction for Work* (CHIWORK), 2022.

C65 @Yu, W., Zhu, C., Qin, L., @Zhao, T. **Jiang, M.** "Diversifying Content Generation for Commonsense Reasoning with Mixture of Knowledge Graph Experts", in Findings of *Annual Meeting of the Association for Computational Linguistics* (ACL), 2022.

C64 @Yu, W., Zhu, C., Fang, Y., Yu, D., Wang, S., Xu, Y., Zeng, M., **Jiang, M.** "Dict-BERT: Enhancing Language Model Pre-training with Dictionary", in Findings of *Annual Meeting of the Association for Computational Linguistics* (ACL), 2022.

C63 *Kuebler, J., @Tong, L., **Jiang, M.** "Multi-Round Parsing-based Multiword Rules for Scientific Knowledge Extraction", in Proceedings of *IEEE International Conference on Big Knowledge* (ICBK), 2021.

C62 @Wang, D., @Zhao, T., Chawla, N.V., **Jiang, M.** "Dynamic Attributed Graph Prediction with Conditional Normalizing Flows", in Proceedings of *IEEE International Conference on Data Mining* (ICDM), 2021. (Acceptance rate 20.0% = 198/990)

C61 @Yu, W., Zhu, C., @Zhao, T., Guo, Z., **Jiang, M.** "Sentence-Permuted Paragraph Generation", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2021. (Poster; acceptance rate 25.6% = 650/2540)

C60 *Dong, X., @Yu, W., Zhu, C., **Jiang, M.** "Injecting Entity Types into Entity-Guided Text Generation", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2021. (Short paper, selected for oral presentation; acceptance rate 6.2% = 66/1060)

C59 @Zhao, T., *Ni, B., @Yu, W., Guo, Z., Shah, N., **Jiang, M.** "Action Sequence Augmentation for Early Graph-based Anomaly Detection", in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), 2021. (Acceptance rate 21.7% = 271/1251)

C58 @Zeng, Q., Lin, J., Yu, W., Cleland-Huang, J., **Jiang, M.** "Enhancing Taxonomy Completion with Concept Generation via Fusing Relational Representations", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2021. (Acceptance rate 15.4% = 238/1541)

C57 **Jiang, M.** "Cross-Network Learning with Partially Aligned Graph Convolutional Networks", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2021. (Acceptance rate 15.4% = 238/1541)

C56 @Yu, W., Wu, L., @Zeng, Q., Deng, Y., Mahindru, R., Guven, S., **Jiang, M.** "Technical Question Answering across Tasks and Domains", in Proceedings of

*Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies* (NAACL-HLT), 2021. (Acceptance rate 19.5% = 350/1797)

C55 Zhu, C., Hinthorn, W., Xu, R., @Zeng, Q., Zeng, M., Huang, X., **Jiang, M.** "Enhancing Factual Consistency of Abstractive Summarization", in Proceedings of *Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies* (NAACL-HLT), 2021. (Acceptance rate 19.5% = 350/1797)

C54 @Wang, D., Shiralkar, P., Lockard, C., Huang, B., Dong, X.L., **Jiang, M.** "TCN: Table Convolutional Network for Web Table Interpretation", in Proceedings of *The Web Conference* (TheWebConf), 2021. (Acceptance rate 20.6% = 357/1736)

C53 Guo, Z., Zhang, C., @Yu, W., Herr, J., Wiest, O., **Jiang, M.**, Chawla, N.V. "Few-Shot Graph Learning for Molecular Property Prediction", in Proceedings of *The Web Conference* (TheWebConf), 2021. (Acceptance rate 20.6% = 357/1736)

C52 Lin, J., Liu, Y., @Zeng, Q., **Jiang, M.**, Cleland-Huang, J. "Traceability Transformed: Generating More Accurate Links with Pre-trained BERT Models", in Proceedings of *International Conference on Software Engineering* (ICSE), 2021. (Acceptance rate 22.4% = 138/615; selected for **ACM SIGSOFT Distinguished Paper Award**)

C51 @Zhao, T., Liu, Y., Woodford, O., Neves, L., **Jiang, M.**, Shah, N. "Data Augmentation for Graph Neural Networks", in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), 2021. (Acceptance rate 21.4% = 1692/7911)

C50 Schnur, J., Karl, R., Garcia-Martinez, A., **Jiang, M.**, Chawla, N.V. "Imputing Growth Snapshot Similarity in Early Childhood Development: A Tensor Decomposition Approach", in Proceedings of *IEEE International Conference on Bioinformatics and Biomedicine* (BIBM), 2020. (Acceptance rate 19.4% = 111/572)

C49 Jiang, T., Zhang, N., Liu, M., **Jiang, M.**, Liu, T., Qin, B. "Use of Internal Knowledge: Biomedical Literature Search Liberated From External Resources", in Proceedings of *IEEE International Conference on Bioinformatics and Biomedicine* (BIBM), 2020. (Acceptance rate 19.4% = 111/572)

C48 Syed, M., @Wang, D., **Jiang, M.**, Conway, O., Juneja, V., Subramanian, S., Chawla, N.V. "Overcoming Data Sparsity in Predicting User Characteristics from Behavior through Graph Embeddings", in Proceedings of *The IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining* (ASONAM), 2020.

C47 @Yu, W., Wu, L., Deng, Y., Mahindru, R., @Zeng, Q., Guven, S., **Jiang, M.** "A Technical Question Answering System with Transfer Learning", in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2020. (Demo)

C46 @Zeng, Q., @Yu, W., *Yu, M., @Jiang, T., Weninger, T., **Jiang, M.** "Tri-Train: Automatic Pre-fine Tuning between Pre-training and Fine-tune Training

for SciNER", in Findings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2020. (Acceptance rate 34.6% = 1274/3677)

C45 Zhang, C., Yu, L., Saebi, M., **Jiang, M.**, Chawla, N.V. "Few-Shot Multi-Hop Relation Reasoning over Knowledge Bases", in Findings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2020. (Acceptance rate 34.6% = 1274/3677)

C44 Guo, Z., @Yu, W., Zhang, C., **Jiang, M.**, Chawla, N.V. "GraSeq: Graph and Sequence Fusion Learning for Molecular Property Prediction", in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), October 2020. (Acceptance rate 21% = 193/920)

C43 @Zhao, T., *Deng, C., *Yu, K., @Jiang, T., @Wang, D., **Jiang, M.** "Error-bounded Graph Anomaly Loss for GNNs", in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), October 2020. (Acceptance rate 21% = 193/920)

C42 Liu, Y., Lin, J., @Zeng, Q., **Jiang, M.**, Cleland-Huang, J. "Towards Semantically Guided Traceability", in Proceedings of *IEEE International Requirements Engineering Conference* (RE), August 2020.

C41 @Wang, D., **Jiang, M.**, Syed, M., Conway, O., Juneja, V., Subramanian, S., Chawla, N.V. "Calendar Graph Neural Networks for Modeling Time Structures in Spatiotemporal User Behaviors", in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2020. (Selected for oral presentation; acceptance rate 5.8% = 44/756)

C40 @Yu, W., Wu, L., @Zeng, Q., Tao, S., Deng, Y., **Jiang, M.** "Crossing Variational Autoencoders for Answer Retrieval", in Proceedings of *Annual Meeting of the Association for Computational Linguistics* (ACL), July 2020.

C39 **Jiang, M.** "Improving Situational Awareness with Collective Artificial Intelligence over Knowledge Graphs", in Proceedings of *Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications II* in *SPIE Defense + Commercial Sensing* Symposium, April 2020.

C38 @Yu, W., *Yu, M., @Zhao, T., **Jiang, M.** "Identifying Referential Intention with Heterogeneous Contexts", in Proceedings of *The Web Conference* (TheWebConf), April 2020. (Acceptance rate 19% = 217/1129)

C37 @Yu, W., *Peng, W., *Shu, Y., @Zeng, Q., **Jiang, M.** "Experimental Evidence Extraction in Data Science with Hybrid Table Features and Ensemble Learning", in Proceedings of *The Web Conference* (TheWebConf), April 2020. (Acceptance rate 19% = 217/1129; selected for **Best Poster Award** at the 14th Annual Poster Contest at ND CSE)

C36 Tang, P., **Jiang, M.**, Xia, N., Pitera, J., Welser, J., Chawla, N.V. "Multi-label Patent Categorization with Non-local Attention-based Graph Convolutional Network", in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), February 2020. (Acceptance rate 20.6% = 1591/7737)

C35 Zhang, C., Yao, H., **Jiang, M.**, Li, Z., Chawla, N.V. "Few-Shot Knowledge Graph Completion", in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), February 2020. (Acceptance rate 20.6% = 1591/7737)

C34 Yao, H., Zhang, C., Wei, Y., **Jiang, M.**, Wang, S., Chawla, N.V., Li, Z. "Graph Few-shot Learning via Knowledge Transfer", in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), February 2020. (Acceptance rate 20.6% = 1591/7737)

C33 @Ding, Y., @Wang, D., Weninger, T., **Jiang, M.** "Preserving Composition and Crystal Structure Information of Chemical Compounds in Atomic Embedding", in Proceedings of *IEEE International Conference on Big Data* (BigData), December 2019. (Poster)

C32 @Jiang, T., *Zhang, Z., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "CTGA: Graph-based Biomedical Literature Search", in Proceedings of *IEEE International Conference on Bioinformatics and Biomedicine* (BIBM), November 2019. (Acceptance rate 18% = 98/543)

C31 @Jiang, T., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "Multi-input Multi-output Sequence Labeling for Joint Extraction of Fact and Condition Tuples from Scientific Text" in Proceedings of *Conference on Empirical Methods in Natural Language Processing* (EMNLP), November 2019. (Acceptance rate 23% = 465/2022)

C30 Wang, T., Xu, X., Xiong, J., **Jiang, M.**, Shi, Y. "MSU-Net: Multiscale Statistical U-Net for Real-time 3D Cardiac MRI Video Segmentation" in Proceedings of *International Conference on Medical Image Computing and Computer Assisted Intervention* (MICCAI), October 2019. (Acceptance rate 31% = 536/1729)

C29 @Jiang, T., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "The Role of Condition: A Novel Scientific Knowledge Graph Representation and Construction Model" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2019. (Acceptance rate 14.2% = 170/1200)

C28 @Wang, D., @Jiang, T., Chawla, N.V., **Jiang, M.** "TUBE: Embedding Behavior Outcomes for Predicting Success" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2019. (Acceptance rate 9.2% = 110/1200; selected for **Best Paper Award** at the Annual Meeting of the International Society for Data Science and Analytics)

C27 *Yu, W., Li, Z., @Zeng, Q., **Jiang, M.** "Tablepedia: Automating PDF Table Reading in an Experimental Evidence Exploration and Analytic System" in Proceedings of *The Web Conference* (TheWebConf), May 2019. (Demo)

C26 @Wang, X., @Zhang, H., @Li, Q., Shi, Y., **Jiang, M.** "A Novel Unsupervised Approach for Precise Temporal Slot Filling from Incomplete and Noisy Temporal Contexts" in Proceedings of *The Web Conference* (TheWebConf), May 2019. (Acceptance rate 18.0% = 225/1247; selected for **Best Poster Award** at the 13th Annual Poster Contest at ND CSE)

C25 @Zhao, T., *Malir, M., **Jiang, M.** "Actionable Objective Optimization for Suspicious Behavior Detection on Large Bipartite Graphs" in Proceedings of *IEEE International Conference on Big Data* (BigData), December 2018. (Acceptance rate 18.9% = 98/518)

C24 Tao, F., Zhang, C., Chen, X., **Jiang, M.**, Hanratty, T., Kaplan, L., Han, J. "Doc2Cube: Allocating Documents to Text Cube without Labeled Data" in Proceedings of *IEEE International Conference on Data Mining* (ICDM), November 2018. (Acceptance rate 11.1% = 105/948)

C23 Ding, Y., Liu, J., Xiong, J., **Jiang, M.**, Shi, Y. "Optimizing Boiler Control in Real-Time with Machine Learning for Sustainability" in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), October 2018. (Acceptance rate 26.0% = 34/130)

C22 Zhao, S., **Jiang, M.**, Liu, M., Qin, B., Liu, T. "CausalTriad: Toward Pseudo Causal Relation Discovery and Hypotheses Generation from Medical Text Data" in Proceedings of *ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics* (BCB), August 2018. (Acceptance rate 31.1% = 46/148)

C21 @Wang, D., **Jiang, M.**, @Wang, X., @Zhao, T., @Zeng, Q., Chawla, N.V. "A Project Showcase for Planning Research Work towards Publishable Success" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2018. (Demo)

C20 Zhang, C., Tao, F., Chen, X., Shen, J., **Jiang, M.**, Sadler, B., Vanni, M., Han, J. "TaxoGen: Constructing Topical Concept Taxonomy by Adaptive Term Embedding and Clustering" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2018. (Acceptance rate 10.9% = 107/983)

C19 **Jiang, M.**, Li, Q., Zhang, X., Qu, M., Hanratty, T., Gao, J., Han, J. "TruePIE: Discovering Reliable Patterns in Pattern-Based Information Extraction" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2018. (Acceptance rate 10.9% = 107/983)

C18 @Wang, D., **Jiang, M.**, @Zeng, Q., @Eberhart, Z., Chawla, N.V. "Multi-Type Itemset Embedding for Learning Behavior Success" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2018. (Acceptance rate 10.9% = 107/983)

C17 Zhao, S., **Jiang, M.**, Yuan, Q., Qin, B., Liu, T., Zhai, C.X. "ContextCare: Incorporating Contextual Information Networks to Representation Learning in Medical Forum Data" in Proceedings of *International Joint Conference on Artificial Intelligence* (IJCAI), August 2017. (Acceptance rate 26.0% = 660/2540)

C16 **Jiang, M.**, Shang, J., Cassidy, T., Ren, X., Kaplan, L., Hanratty, T., Han, J. "MetaPAD: Meta Patten Discovery from Massive Text Corpora" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2017. (Acceptance rate 13.7% = 130/748)

C15 Kuang, K., Cui, P., Li, B., **Jiang, M.**, Yang, S., Wang, F. "Estimating Treatment Effect in the Wild via Differentiated Confounder Balancing" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2017. (Acceptance rate 13.7% = 130/748)

C14 Ren, X., Shen, J., Qu, M., Wang, X., Wu, Z., Zhu, Q., **Jiang, M.**, Tao, F., Sinha, S., Liem, D., Ping, P., Weinshilboum, R., Han, J. "LifeNet: A Structured

Network-Based Knowledge Exploration and Analytics System for Life Sciences" in Proceedings of *Annual Meeting of the Association for Computational Linguistics* (ACL), July 2017. (Demo)

C13 Kuang, K., Cui, P., Li, B., **Jiang, M.**, Yang, S., Wang, F. "Treatment Effect Estimation with Data-Driven Variable Decomposition" in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), February 2017. (Acceptance rate 24.6% = 638/2590)

C12 Kuang, K., **Jiang, M.**, Cui, P., Yang, S. "Steering Social Media Promotions with Effective Strategies" in Proceedings of *IEEE International Conference on Data Mining* (ICDM), November 2016. (Acceptance rate 19.6% = 177/904)

C11 Gui, H., Liu, J., Tao, F., **Jiang, M.**, Norick, B., Han, J. "Large-Scale Embedding Learning in Heterogeneous Event Data" in Proceedings of *IEEE International Conference on Data Mining* (ICDM), November 2016. (Acceptance rate 19.6% = 177/904)

C10 **Jiang, M.**, Faloutsos, C., Han, J. "CatchTartan: Representing and Summarizing Dynamic Multicontextual Behaviors" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2016. (Acceptance rate 8.9% = 70/784)

C9 **Jiang, M.**, Cui, P., Yuan, N.J., Xie, X., Yang, S. "Little is Much: Bridging Cross-Platform Behaviors through Overlapped Crowds" in Proceedings of *AAAI Conference on Artificial Intelligence* (AAAI), February 2016. (Acceptance rate 25.8% = 550/2132)

C8 **Jiang, M.**, Beutel, A., Cui, P., Hooi, B., Yang, S., Faloutsos, C. "A General Suspiciousness Metric for Dense Blocks in Multimodal Data" in Proceedings of *IEEE International Conference on Data Mining* (ICDM), November 2015. (Acceptance rate 18.1% = 146/807)

C7 **Jiang, M.**, Cui, P., Wang, F., Xu, X., Zhu, W., Yang, S. "FEMA: Flexible Evolutionary Multi-Faceted Analysis for Dynamic Behavioral Pattern Discovery" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2014. (Acceptance rate 14.6% = 151/1036)

C6 **Jiang, M.**, Cui, P., Beutel, A., Faloutsos, C., Yang, S. "CatchSync: Catching Synchronized Behavior in Large Directed Graphs" in Proceedings of *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2014. (Acceptance rate 14.6% = 151/1036; selected as **best paper finalist** and invited to TKDD special issue)

C5 **Jiang, M.**, Cui, P., Beutel, A., Faloutsos, C., Yang, S. "Inferring Strange Behavior from Connectivity Pattern in Social Networks" in Proceedings of *Pacific-Asia Conference on Knowledge Discovery and Data Mining* (PAKDD), April 2014. (Acceptance rate 10.8% = 40/371)

C4 **Jiang, M.**, Cui, P., Beutel, A., Faloutsos, C., Yang, S. "Detecting Suspicious Following Behavior in Multimillion-Node Social Networks" in Proceedings of *International Conference on World Wide Web* (WWW), April 2014. (Poster)

C3 **Jiang, M.**, Cui, P., Wang, F., Yang, Q., Zhu, W., Yang, S. "Social Recommendation across Multiple Relational Domains" in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), October 2012. (Acceptance rate 13.4% = 146/1088)

C2 **Jiang, M.**, Cui, P., Liu, R., Yang, Q., Wang, F., Zhu, W., Yang, S. "Social Contextual Recommendation" in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), October 2012. (Acceptance rate 13.4% = 146/1088)

C1 Liu, L., Tang, J., Han, J., **Jiang, M.**, Yang, S. "Mining Topic-Level Influence in Heterogeneous Networks" in Proceedings of *ACM International Conference on Information and Knowledge Management* (CIKM), October 2010. (Acceptance rate 13.3% = 126/945)

*Journal Papers*

J49 @Lu, Y., Wang, Z., Li, S., Liu, X., Yu, C., Yin, Q., Shi, Z., Zhang, Z., **Jiang, M.** "Learning to Optimize Multi-Objective Alignment Through Dynamic Reward Weighting", *Transactions of the Association for Computational Linguistics*. February 2026. (to appear)

J48 Mo, F., Gao, Y., Wu, Z., Liu, X., Chen, P., Li, Z., Wang, Z., Li, X., **Jiang, M.**, Nie, J. "Leveraging Historical Information to Boost Retrieval-Augmented Generation in Conversations", *Information Processing and Management*. October 2025. (IF=6.9)

J47 @Alosious, S., **Jiang, M.**, Luo, T. "Computation and Machine Learning for Materials: Past, Present, and Future Perspectives", *MRS Bulletin: 50th Anniversary*, Springer Nature. September 2025. (IF=4.9; DOI: 10.1557/s43577-025-00959-y)

J46 Liu, Y., @Alosious, S., Zhou, J., **Jiang, M.**, Luo, T. "Machine Learning in Nanoscale Thermal Transport", *Annual Review of Heat Transfer*. June 2025.

J45 @Jia, M., @Yu, W., Ma, K., Fang, T., @Zhang, Z., Ouyang, S., Zhang, H., Yu, D., **Jiang, M.** "Leopard: A Vision Language Model for Text-Rich Multi-Image Tasks", *Transactions on Machine Learning Research*. May 2025.

J44 Qin, R., Liu, D., Xu, C., Yan, Z., Tan, Z., Jia, Z., Nassereldine, A., Li, J., **Jiang, M.**, Abbasi, A., Xiong, J., Shi, Y. "Empirical Guidelines for Deploying LLMs onto Resource-constrained Edge Devices", *ACM Transactions on Design Automation of Electronic Systems*. May 2025. (Accepted; **Selected as the Editor's Pick from Issue 5, 2025**)

J43 Xu, J., Suleiman, A., @Liu, G., Zhang, R., **Jiang, M.**, Guo, R., Luo, T. "Transcend the Boundaries: Machine Learning for Designing Polymeric Membrane Materials for Gas Separation", *Chemical Physics Reviews*. 5:4. December 2024. (IF=6.6; DOI: 10.1063/5.0205433)

J42 Jin, B., @Liu, G., Han, C., **Jiang, M.**, Ji, H., Han, J. "Large Language Models on Graphs: A Comprehensive Survey", *IEEE Transactions on Knowledge and Data Engineering*. 36:12. December 2024. (IF=8.9; DOI: 10.1109/TKDE.2024.3469578)

J41 Zitnik, M., and many others including **Jiang, M.** "Current and Future Directions in Network Biology", *Bioinformatics Advances*. 4:1. August 2024. (IF=2.4; DOI: 10.1093/bioadv/vbae099)

J40 Xu, J., Suleiman, A., @Liu, G., Perez, M., Zhang, R., **Jiang, M.**, Guo, R., Luo, T. "Superior Polymeric Gas Separation Membrane Designed by Explainable Graph Machine Learning", *Cell Reports Physical Science*. 5:7. July 2024. (IF=8.9; DOI: 10.1016/j.xcrp.2024.102067)

J39 Du, Y., **Jiang, M.**, Zhang, Y. "Autonomous Output-Oriented Aerosol Jet Printing Enabled by Hybrid Machine Learning", *Advanced Materials Technologies*. 9:7. February 2024. (IF=6.8; DOI: 10.1002/admt.202301286)

J38 @Liu, G., @Inae, E., Luo, T., **Jiang, M.** "Rationalizing Graph Neural Networks with Data Augmentation", *ACM Transactions on Knowledge Discovery from Data*. 86. February 2024. (IF=4.2; DOI: 10.1145/3638781)

J37 @Tan, Z., **Jiang, M.** "User Modeling in the Era of Large Language Models", *IEEE Data Engineering Bulletin*. December 2023.

J36 @Wang, D., @Zhao, T., @Yu, W., Chawla, N.V., **Jiang, M.** "Deep Multimodal Complementarity Learning", *IEEE Transactions on Neural Networks and Learning Systems*. 34:12, 10213-10224, December 2023. (IF=10.4; DOI: 10.1109/TNNLS.2022.3165180)

J35 **Jiang, M.** "Transfer Learning across Graph Convolutional Networks: Methods, Theory, and Applications", *ACM Transactions on Knowledge Discovery from Data*. 18:1, 1-23, October 2023. (IF=4.2; DOI: 10.1145/3617376)

J34 @Zhang, Z., @Yu, W., Ning, Z., Ju, M., **Jiang, M.** "Exploring Contrast Consistency of Open-Domain Question Answering Systems on Minimally Edited Questions", *Transactions of the Association for Computational Linguistics*. 11, 1082-1096, August 2023. (DOI: 10.1162/tacl_a_00591)

J33 @Zhao, T., Jin, W., Liu, Y., Wang, Y., @Liu, G., Gunnemann, S., Shah, N., **Jiang, M.** "Graph Data Augmentation for Graph Machine Learning: A Survey", *IEEE Data Engineering Bulletin*. June 2023.

J32 @Wang, D., *Zhang, Z., *Ma, Y., @Zhao, T., @Jiang, T., Chawla, N.V., **Jiang, M.** "Modeling Co-evolution of Attributed and Structural Information in Graph Sequence", *IEEE Transactions on Knowledge and Data Engineering*. 35:2, 1817-1830, February 2023. (IF=8.9; DOI: 10.1109/TKDE.2021.3094332)

J31 *Chou, D., **Jiang, M.** "A Survey on Data-Driven Network Intrusion Detection", *ACM Computing Surveys*. 54:9, 1-36, December 2022. (IF=10.28; DOI: 10.1145/3472753)

J30 Saebi, M., Kreig, S., Zhang, C., **Jiang, M.**, Kajdanowicz, T., Chawla, N.V. "Heterogeneous Relational Reasoning in Knowledge Graphs with Reinforcement Learning", *Information Fusion*. 88, 12-21, December 2022. (IF=18.6; DOI: 10.1016/j.inffus.2022.07.001)

J29 @Yu, W., Zhu, C., *Li, Z., Hu, Z., Wang, Q., Ji, H., **Jiang, M.** "A Survey of Knowledge-Enhanced Text Generation", *ACM Computing Surveys*. 54:11s, 1-38, November 2022. (IF=14.3; DOI: 10.1145/3512467)

J28 Liu, Z., **Jiang, M.**, Luo, T. "Leveraging Low-Fidelity Data to Improve Machine Learning of Sparse High-Fidelity Thermal Conductivity Data via Transfer Learning", *Materials Today Physics*. 28, November 2022. (IF=11.0; DOI: 10.1016/j.mtphys.2022.100868)

J27 Zhao, S., **Jiang, M.**, Qin, B., Liu, T., Zhai, C.X., Wang, F. "Structural and Textual Information Fusion for Symptom and Disease Representation Learning", *IEEE Transactions on Knowledge and Data Engineering*. 34:9, 4468-4483, September 2022. (IF=8.9; DOI: 10.1109/TKDE.2020.3039469)

J26 @Zhao, T., @Jiang, T., Shah, N., **Jiang, M.** "A Synergistic Approach for Graph Anomaly Detection with Pattern Mining and Feature Learning", *IEEE Transactions on Neural Networks and Learning Systems*. 33:6, 2393-2405, June 2022. (IF=10.4; DOI: 10.1109/TNNLS.2021.3102609)

J25 **Jiang, M.**, Jung, T., Karl, R., @Zhao, T. "Federated Dynamic Graph Neural Networks with Secure Aggregation for Video-based Distributed Surveillance", *ACM Transactions on Intelligent Systems and Technology*. 13:4, 1-23, May 2022. (IF=2.861; DOI: 10.1145/3501808)

J24 Gu, S., **Jiang, M.**, Guzzi, P.H., Milenkovic, T. "Modeling Multi-scale Data via a Network of Networks", *Bioinformatics*. 38:9, 2544-2553, March 2022. (IF=5.8; DOI: 10.1093/bioinformatics/btac133)

J23 Syed, M., @Wang, D., **Jiang, M.**, Conway, O., Juneja, V., Subramanian, S., Chawla, N.V. "Unified Representation of Twitter and Online News using Graph and Entities", *Frontiers in Big Data, section Big Data Networks*. 4:699070, August 2021. (IF=[new journal]; DOI: 10.3389/fdata.2021.699070)

J22 @Wang, D., @Zeng, Q., Chawla, N.V., **Jiang, M.** "Modeling Complementarity in Behavior Data with Multi-Type Itemset Embedding", *ACM Transactions on Intelligent Systems and Technology*. 12:4, 1-25, August 2021. (IF=2.861; DOI: 10.1145/3458724)

J21 @Jiang, T., @Zeng, Q., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "Biomedical Knowledge Graphs Construction from Conditional Statements" *IEEE/ACM Transactions on Computational Biology and Bioinformatics*. 18:3, 823-835, May-June 2021. (IF=3.015; DOI: 10.1109/TCBB.2020.2979959)

J20 Zhang, C., Yao, H., Yu, L., Huang, C., Song, D., **Jiang, M.**, Chen, H., Chawla, N.V. "Inductive Contextual Relation Learning for Personalization", *ACM Transactions on Information Systems*. 39:3, 1-22, May 2021. (IF=2.312; DOI: 10.1145/3450353)

J19 Liu, J., Xu, X., **Jiang, M.**, Shi, Y. "Binarizing Weights Wisely for Edge Intelligence: Guide for Partial Binarization of Deconvolution-Based Generators" *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*. 39:12, 4748-4759, December 2020. (IF=2.168; DOI: 10.1109/TCAD.2020.2983370)

J18 Liu, Z., **Jiang, M.**, Luo, T. "Leverage Electron Properties to Predict Phonon Properties via Transfer Learning for Semiconductors" *Science Advances*. 6:45, eabd1356, November 2020. (IF=12.530; DOI: 10.1126/sciadv.abd1356)

J17 Zhou, S., Hu, Z., Gu, W., **Jiang, M.**, Chen, M., Hong, Q., Booth, C. "Combined Heat and Power System Intelligent Economic Dispatch: A Deep Reinforcement

Learning Approach" *International Journal of Electrical Power and Energy Systems*. 120, September 2020. (IF=3.588; DOI: 10.1016/j.ijepes.2020.106016)

J16 @Wang, X., **Jiang, M.** "Precise Temporal Slot Filling via Truth Finding with Data-Driven Commonsense" *Knowledge and Information Systems*. 1-27, July 2020. (IF=2.936; DOI: 10.1007/s10115-020-01493-w)

J15 **Jiang, M.**, Ammerman, B.A., @Zeng, Q., Jacobucci, R., Brodersen, A. "Phrase-level Pairwise Topic Modeling to Uncover Helpful Peer Responses to Online Suicidal Crises" *Humanities & Social Sciences Communications* (formerly known as *Nature Palgrave Communications*). 7:36, July 2020. (IF=[new journal]; DOI: 10.1057/s41599-020-0513-5)

J14 Kuang, K., Cui, P., Li, B., **Jiang, M.**, Yang, S. "Treatment Effect Estimation via Differentiated Confounder Balancing and Regression" *ACM Transactions on Knowledge Discovery from Data*. 14:1, 1-25, December 2019. (IF=2.200; DOI: 10.1145/3365677)

J13 Zhou, S., Hu, Z., Zhong, Z., He, D., **Jiang, M.** "An Integrated Energy System Operating Scenarios Generator based on Generative Adversarial Network" *Sustainability*. 11:23, 6699, November 2019. (IF=2.576; DOI: 10.3390/su11236699)

J12 Zhou, S., Hu, Z., Gu, W., **Jiang, M.**, Zhang, X.P. "Artificial Intelligence based Smart Energy Community Management: A Reinforcement Learning Approach" *CSEE Journal of Power and Energy Systems*. 5:1, 1-10, March 2019. (IF=2.680; DOI: 10.17775/CSEEJPES.2018.00840; Received **CSEE JPES 10th Anniversary High Impact Paper Award** in 2025)

J11 Kuang, K., **Jiang, M.**, Cui, P., Luo, H., Yang, S. "Effective Promotional Strategies Selection in Social Media: A Data-Driven Approach" *IEEE Transactions on Big Data*. 4:4, 487-501, December 2018. (IF=3.344; DOI: 10.1109/TBDATA.2017.2734102)

J10 Shang, J., Liu, J., **Jiang, M.**, Ren, X., Voss, C.R., Han, J. "Automated Phrase Mining from Massive Text Corpora" *IEEE Transactions on Knowledge and Data Engineering*. 30:10, 1825-1837, October 2018. (IF=8.9; DOI: 10.1109/TKDE.2018.2812203)

J9 Shang, J., **Jiang, M.**, Tong, W., Xiao, J., Peng, J., Han, J. "DPPred: An Effective Prediction Framework with Concise Discriminative Patterns" *IEEE Transactions on Knowledge and Data Engineering*. 30:7, 1226-1239, July 2018. (IF=8.9; DOI: 10.1109/TKDE.2017.2757476)

J8 Gui, H., Liu, J., Tao, F., **Jiang, M.**, Norick, B., Kaplan, L., Han, J. "Embedding Learning with Events in Heterogeneous Information Networks" *IEEE Transactions on Knowledge and Data Engineering*. 29:11, 2428-2441, July 2017. (IF=8.9; DOI: 10.1109/TKDE.2017.2733530)

J7 **Jiang, M.**, Cui, P., Beutel, A., Faloutsos, C., Yang, S. "Inferring Lockstep Behavior from Connectivity Pattern in Large Graphs" *Knowledge and Information Systems*. 48:2, 399-428, August 2016. (IF=2.822; DOI: 10.1007/s10115-015-0883-y)

J6 **Jiang, M.**, Cui, P., Beutel, A., Faloutsos, C., Yang, S. "Catching Synchronized Behaviors in Large Networks: A Graph Mining Approach" *ACM Transactions*

*on Knowledge Discovery from Data - Special Issue on SIGKDD 2014.* 10:4, 35:1-35:27, July 2016. (IF=4.2; DOI: 10.1109/MIS.2016.5)

J5 **Jiang, M.**, Beutel, A., Cui, P., Hooi, B., Yang, S., Faloutsos, C. "Spotting Suspicious Behaviors in Multimodal Data: A General Metric and Algorithms" *IEEE Transactions on Knowledge and Data Engineering.* 28:8, 2187-2200, April 2016. (IF=8.9; DOI: 10.1109/TKDE.2016.2555310)

J4 **Jiang, M.**, Cui, P., Yang, S. "Suspicious Behavior Detection: Current Trends and Future Directions" *IEEE Intelligent Systems.* 31:1, 31-39, January 2016. (IF=6.4; DOI: 10.1109/MIS.2016.5)

J3 **Jiang, M.**, Cui, P., Chen, X., Wang, F., Zhu, W., Yang, S. "Social Recommendation with Cross-Domain Transferable Knowledge" *IEEE Transactions on Knowledge and Data Engineering.* 27:11, 3084-3097, November 2015. (IF=8.9; DOI: 10.1109/TKDE.2015.2432811)

J2 **Jiang, M.**, Cui, P., Wang, F., Zhu, W., Yang, S. "Scalable Recommendation with Social Contextual Information" *IEEE Transactions on Knowledge and Data Engineering.* 26:11, 2789-2802, November 2014. (IF=8.9; DOI: 10.1109/TKDE.2014.2300487)

J1 Liu, L., Zhu, F., **Jiang, M.**, Han, J., Sun, L., Yang, S. "Mining Diversity on Social Media Networks" *Multimedia Tools and Applications.* 56:1, 179-205, January 2012. (IF=3.6; DOI: 10.1007/s11042-010-0568-1)

*Workshop Papers*

W40 @Liu, G., Sun, M., Matusik, W., **Jiang, M.**, Chen, J. "Multimodal Large Language Models for Inverse Molecular Design with Retrosynthetic Planning", in the *AI for Science Workshop* (AI4Science) in conjunction with *Annual Conference on Neural Information Processing Systems* (NeurIPS), 2025.

W39 @Ziems, N., Soylu, D., Agrawal, L., Miller, I., Lai, L., Qian, C., Song, K., **Jiang, M.**, Klein, D., Zaharia, M., D'Oosterlinck, K., Potts, K., Khattab, O. "Multi-module GRPO: Composing Policy Gradients and Prompt Optimization for Language Model Programs", in the *First Workshop on Foundations of Reasoning in Language Models* (FoRLM) in conjunction with *Annual Conference on Neural Information Processing Systems* (NeurIPS), 2025.

W38 Agrawal, L., Tan, S., Soylu, D., @Ziems, N., Khare, R., Opsahl-Ong, K., Singhvi, A., Shandilya, H., Ryan, M., **Jiang, M.**, Potts, C., Sen, K., Dimakis, A., Stoica, I., Klein, D., Zaharia, M., Khattab, O. "GEPA: Reflective Prompt Evolution Can Outperform Reinforcement Learning", in the *First Workshop on Foundations of Reasoning in Language Models* (FoRLM) in conjunction with *Annual Conference on Neural Information Processing Systems* (NeurIPS), 2025.

W37 Nogueira, B., Gomes, G., **Jiang, M.**, Chawla, N.V., Moniz, N. "Spectral Manifold Harmonization for Graph Imbalanced Regression", in the *Workshop of Machine Learning on Graphs in the Era of Generative Artificial Intelligence* (MLoG-GenAI) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2025.

W36 Nogueira, B., Gomes, G., **Jiang, M.**, Chawla, N.V., Moniz, N. "Spectral Manifold Harmonization for Graph Imbalanced Regression", in the *Workshop of Data*

*in Generative Models - The Bad, the Ugly, and the Greats* (DIG-BUG) in conjunction with *International Conference on Machine Learning* (ICML), 2025.

W35 @Liu, G., Seal, S., Arevalo, J., Liang, Z., Carpenter, A.E., **Jiang, M.**, Singh, S. "Learning Molecular Representation in a Cell", in the *Workshop on AI for New Drug Modalities* (AIDrugX) in conjunction with *Conference on Neural Information Processing Systems* (NeurIPS), 2024.

W34 Mo, F., Gao, Y., Liu, X., Wu, Z., Chen, P., Li, Z., Wang, Z., Li, X., **Jiang, M.**, Nie, J. "Leveraging Historical Turns for Retrieval-Augmented Generation in Conversational Search", in the *Workshop on AI Agent for Information Retrieval* (Agent4IR) in conjunction with *ACM International Conference on Information and Knowledge Management* (CIKM), 2024.

W33 *Kuang, Y., Lin, H., **Jiang, M.** "OpenFMNav: Towards Open-Set Zero-Shot Object Navigation via Vision-Language Foundation Models", in the *Workshop on Large Language Model Agents* (LLMAgent) in conjunction with *International Conference on Learning Representations* (ICLR), 2024.

W32 @Liu, G., @Zhao, T., @Inae, E., Luo, T., **Jiang, M.** "Semi-Supervised Graph Imbalanced Regression", in the *New Frontiers in Graph Learning* (GLFrontiers) in conjunction with *Conference on Neural Information Processing Systems* (NeurIPS), 2023.

W31 @Inae, E., @Liu, G., **Jiang, M.** "Motif-aware Attribute Masking for Molecular Graph Pre-training", in the *New Frontiers in Graph Learning* (GLFrontiers) in conjunction with *Conference on Neural Information Processing Systems* (NeurIPS), 2023.

W30 @Ziems, N., @Liu, G., *Flanagan, J., **Jiang, M.** "Explaining Tree Model Decisions in Natural Language for Network Intrusion Detection", in the *XAI in Action: Past, Present, and Future Applications* (XAIA) in conjunction with *Conference on Neural Information Processing Systems* (NeurIPS), 2023.

W29 **Jiang, M.**, @Dang, H., @Tong, L. "A Quantitative Review on Language Model Efficiency Research", in the *Large Language Model Symposium* in conjunction with *International Joint Conference on Artificial Intelligence* (IJCAI), 2023.

W28 @Liu, G., **Jiang, M.** "Transfer Learning with Diffusion Model for Polymer Property Prediction", in the *Workshop on Deep Learning on Graphs: Methods and Applications* (DLG) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2023.

W27 *Lu, A., **Jiang, M.** "Investigating Cross-Domain Behaviors of BERT in Review Understanding", in the *Workshop on e-Commerce and NLP* (ECNLP) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2023.

W26 @Zeng, Q., @Zhang, Z., Lin, J., **Jiang, M.** "Completing Taxonomies with Relation-Aware Mutual Attentions", in the *Workshop on Mining and Learning with Graphs* (MLG) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2023.

W25 @Dang, H., @Nguyen, B., @Ziems, N., **Jiang, M.** "Embedding Mental Health Discourse for Community Recommendation", in the *Workshop on Computa-*

*tional Approaches to Discourse* (CODI) in conjunction with *Annual Meeting of the Association for Computational Linguistics* (ACL), 2023.

W24 @Liu, G., **Jiang, M.** "Transfer Learning with Diffusion Model for Polymer Property Prediction", in the *ICLR Workshop on ML4Materials: from Molecules to Materials* (ML4Materials) in conjunction with *International Conference on Learning Representations* (ICLR), 2023.

W23 Liu, Y., @Yu, M., **Jiang, M.**, Huang, Y. "Creative Research Question Generation for Human-Computer Interaction Research", in the *Workshop on Human-AI Co-Creation with Generative Models* (HAI-GEN) in conjunction with *Annual Conference on Intelligent User Interfaces* (IUI), 2023.

W22 @Tong, L., *Liu, Q., @Yu, W., @Yu, M., @Zhang, Z., **Jiang, M.** "Improving Mental Health Support Response Generation with Event-based Knowledge Graph", in the *Workshop on Knowledge-Augmented Methods for NLP* (KnowledgeNLP) in conjunction with *AAAI Conference on Artificial Intelligence* (AAAI), 2023.

W21 @Kelly, S., **Jiang, M.** "Feature Instability Search for Multi-Way Explainability", in the *Workshop on Representation Learning for Responsible Human-Centric AI* ($R^2$HCAI) in conjunction with *AAAI Conference on Artificial Intelligence* (AAAI), 2023.

W20 *Fang, W., **Jiang, M.** "Investigating Relationships between Accuracy and Diversity in Multi-Reference Text Generation", in the *Undergraduate Consortium* (UC) at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2022.

W19 *Yan, Y., **Jiang, M.** "Sampling Directed Graphs with Linearly Rescaled Degree Matrices", in the *Undergraduate Consortium* (UC) at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2022.

W18 @Yu, M., @Yu, W., **Jiang, M.** "Scientific Comparative Argument Generation", in the *Third Document Intelligence Workshop* (DI) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2022.

W17 @Liu, G., @Zhang, Z., Ning, Z., **Jiang, M.** "On the Relationship between Counterfactual Explainer and Recommender", in the *First Workshop on Data Science and Artificial Intelligence on Responsible Recommendation* (DSAI4RRS) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2022.

W16 @Yu, W., Zhu, C., Qin, L., @Zhao, T., **Jiang, M.** "Diversifying Content Generation for Commonsense Reasoning with Mixture of Knowledge Graph Experts", in the *Workshop of Deep Learning on Graphs for Natural Language Processing* (DLG4NLP) in conjunction with *North American Chapter of the Association for Computational Linguistics* (NAACL), 2022.

W15 @Zeng, Q., @Yu, M., @Yu, W., @Jiang, T., **Jiang, M.** "Validating Label Consistency in NER Data Annotation", in the *Workshop on Evaluation and Comparison of NLP Systems* (Eval4NLP) in conjunction with *Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2021.

W14 @Wang, D., @Zhao, T., Chawla, N.V., **Jiang, M.** "Evolutionary Graph Normalizing Flows", in the *International Workshop on Deep Learning on Graphs: Methods and Applications* (DLG) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2021.

W13 *Alaphat, A., **Jiang, M.** "SmartFund: Predicting Research Outcomes with Machine Learning and Natural Language Processing", in the *International Workshop on Big Data Tools, Methods, and Use Cases for Innovative Scientific Discovery* (BTSD) in conjunction with *IEEE International Conference on Big Data* (BigData), 2020. (Regular paper, 10 pages. The first author was a freshman undergraduate when he finished the work. He won $250 grant funding from the CUSE program.)

W12 @Wang, D., *Zhang, Z., *Ma, Y., @Zhao, T., @Jiang, T., Chawla, N.V., **Jiang, M.** "Learning Attribute-Structure Co-Evolutions in Dynamic Graphs", in the *Second International Workshop on Deep Learning on Graphs: Methods and Applications* (DLG) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2020. (selected for **Best Paper Award**)

W11 @Zhao, T., *Ni, B., @Yu, W., **Jiang, M.** "Early Fraud Detection with Augmented Graph Learning", in the *Second International Workshop on Deep Learning on Graphs: Methods and Applications* (DLG) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2020.

W10 @Zhao, T., *Deng, C., *Yu, K., @Jiang, T., @Wang, D., **Jiang, M.** "GNN-based Graph Anomaly Detection with Graph Anomaly Loss", in the *Second International Workshop on Deep Learning on Graphs: Methods and Applications* (DLG) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2020.

W9 *Zhou, Y., @Zhao, T., **Jiang, M.** "A Probabilistic Model with Commonsense Constraints for Pattern-based Temporal Fact Extraction", in the *Workshop on Fact Extraction and Verification* (FEVER) in conjunction with *Annual Meeting of the Association for Computational Linguistics* (ACL), July 2020.

W8 @Yu, W., Wu, L., Tao, S., Deng, Y., @Zeng, Q., **Jiang, M.** "Generating Helpful Responses for Intelligent Tech Support", in the *Reasoning for Complex QA Workshop* (RCQA) in conjunction with *AAAI Conference on Artificial Intelligence* (AAAI), February 2020.

W7 Yao, H., Zhang, C., Wei, Y., **Jiang, M.**, Wang, S., Chawla, N.V., Li, Z. "Graph Few-shot Learning via Knowledge Transfer", in the *Graph Representation Learning Workshop* (GRL) in conjunction with *Conference on Neural Information Processing Systems* (NeurIPS), November 2019.

W6 @Zeng, Q., *Yu, M., @Yu, W., Xiong, J., Shi, Y., **Jiang, M.** "Faceted Hierarchy: A New Graph Type to Organize Scientific Concepts and a Construction Method", in the *Workshop on Graph-Based Natural Language Processing* (TextGraphs) in conjunction with *Conference on Empirical Methods in Natural Language Processing* (EMNLP), November 2019.

W5 *Ma, Y., @Zeng, Q., @Jiang, T., Cai, L., **Jiang, M.** "A Study of Person Entity Extraction and Profiling from Classical Chinese Historiography", in the *International Workshop on EntitY REtrieval* (EYRE) in conjunction with *ACM International Conference on Information and Knowledge Management* (CIKM), November 2019.

W4 @Jiang, T., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "Constructing Information-Lossless Biological Knowledge Graphs from Conditional Statements" in the 18th *International Workshop on Data Mining in Bioinformatics* (BIOKDD) in conjunction with *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2019.

W3 @Wang, D., **Jiang, M.**, @Wang, X., Chawla, N.V., Brunts, P. "Multifaceted Event Analysis on Cross-Media Network Data" in the *International Workshop on Heterogeneous Networks Analysis and Mining* (HeteroNAM) in conjunction with *ACM Conference on Web Search and Data Mining* (WSDM), February 2018.

W2 Chen, L.W., Mangipudi, B., Bandlamudi, J., Sehgal, R., Hao, Y., **Jiang, M.** "Integrating Knowledge from Latent and Explicit Features for Triple Scoring—Team Radicchio's Triple Scorer at WSDM Cup 2017" in the 10th *ACM Conference on Web Search and Data Mining Notebook Papers* (WSDM), February 2017.

W1 **Jiang, M.** "Catching Social Media Advertisers with Strategy Analysis" in the 1st *International Workshop on Computational Methods for CyberSafety* in conjunction with *ACM International Conference on Information and Knowledge Management* (CIKM), October 2016.

*Refereed Conference Tutorials*

T15 @Zhang, Z., Lou, R., Jiao, F., Yin, W., **Jiang, M.** "Advancing Language Models through Instruction Tuning: Recent Progress and Challenges", in the *Conference on Empirical Methods in Natural Language Processing* (EMNLP), November 2025.

T14 Zhao, T., Ding, K., Jin, W., Liu, G., **Jiang, M.**, Shah, N., "Augmentation Methods for Graph Learning" in the *SIAM International Conference on Data Mining* (SDM), April 2023.

T13 Zhu, C., Xu, Y., Ren, X., Lin, Y., **Jiang, M.**, @Yu, W., "Knowledge-Augmented Methods for Natural Language Processing" in the *ACM International Conference on Web Search and Data Mining* (WSDM), February 2023.

T12 Zhu, C., Xu, Y., **Jiang, M.**, @Yu, W., Ren, X., Lin, Y. "Knowledge-Augmented Methods for Natural Language Processing" in the *Annual Meeting of the Association for Computational Linguistics* (ACL), May 2022.

T11 @Yu, W., **Jiang, M.**, Hu, Z., Wang, Q., Ji, H., Rajani, N. "Knowledge-Enriched Natural Language Generation", in the *Conference on Empirical Methods in Natural Language Processing* (EMNLP), November 2021.

T10 Zhang, C., Li, J., **Jiang, M.** "Data Efficient Learning on Graphs", in the *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2021.

T9 **Jiang, M.**, Shang, J. "Scientific Text Mining and Knowledge Graphs" in the *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2020.

T8 Zhang, C., **Jiang, M.**, Zhang, X., Ye, Y., Chawla, N.V. "Multi-modal Network Representation Learning: Methods and Applications" in the *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2020.

T7 Zhang, C., **Jiang, M.**, Zhang, X., Chawla, N.V. "Multi-modal Network Representation Learning: Methods and Applications" in the *SIAM International Conference on Data Mining* (SDM), May 2020. (accepted but cancelled due to COVID-19)

T6 **Jiang, M.**, Kumar, S., Subrahmanian, V.S., Faloutsos, C. "Data-Driven Approaches towards Malicious Behavior Modeling" in the *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2017.

T5 Shang, J., **Jiang, M.**, Ren, X., Han, J. "Mining Entity-Relation-Attribute Structures from Massive Text Data" in the *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), August 2017.

T4 Ren, X., **Jiang, M.**, Shang, J., Han, J. "Building Structured Databases of Factual Knowledge from Massive Text Data" in the *ACM SIGMOD International Conference on Management of Data* (SIGMOD), May 2017.

T3 Ren, X., **Jiang, M.**, Shang, J., Han, J. "Constructing Structured Information Networks from Massive Text Corpora" in the *International World Wide Web Conference* (WWW), April 2017.

T2 **Jiang, M.**, Cui, P., Han, J. "Data-Driven Behavioral Analytics: Observations, Representations and Models" in the *ACM International Conference on Information and Knowledge Management* (CIKM), October 2016.

T1 **Jiang, M.**, Cui, P. "Behavior Modeling in Social Networks: From Micro to Macro" in the *IEEE International Conference on Data Mining* (ICDM), November 2015.

*Books*

B6 @Inae, E., Liu, Y., @Zhu, Y., Xu, J., @Liu, G., Zhang, R., Luo, T., **Jiang, M.** "Modeling Polymers with Neural Networks" American Chemical Society, 2025. (DOI: 10.1021/acsinfocus.7e9014)

B5 @Liu, G., @Inae, E., **Jiang, M.** "Deep Learning for Polymer Discovery: Foundation and Advances" Synthesis Lectures on Data Mining and Knowledge Discovery, Springer, 2025. (DOI: 10.1007/978-3-031-84732-5)

B4 **Jiang, M.**, Lin, B., Wang, S., Xu, Y., @Yu, W., Zhu, C. "Knowledge-augmented Methods for Natural Language Processing" Springer, 2024.

B3 **Jiang, M.**, Zhang, C., Zhang, X., Shah, N. "Editorial: Computational Behavioral Modeling for Big User Data" Frontiers in Big Data, section Big Data Networks, 2022.

B2 **Jiang, M.** "Behavior Modeling in Social Networks" Encyclopedia of Social Network Analysis and Mining, Springer, New York, NY, 2018.

B1 **Jiang, M.**, Cui, P. "Mining User Behaviors in Large Social Networks" Chapter 4, Big Data in Complex and Social Networks, Chapman & Hall/CRC Big Data Series, 2016.

*Patent*

P1 Yu, W., Wu, L., Deng, Y., Zeng, Q., Mahindru, R., Guven, S., **Jiang, M.** "System and Method for Technical Question Answering across Tasks and Domains" October 24, 2023. (Ref: P202100237, ID: 96545251)

## Media Coverage and Other Activities

"NeurIPS - Open Polymer Prediction 2025": Organized a Kaggle Competition, June–December, 2025. (`https://www.kaggle.com/competitions/neurips-open-polymer-prediction-2025/overview`)

"Could LLMs help design our next medicines and materials?": MIT News by Adam Zewe, April 9, 2025. (`https://news.mit.edu/2025/could-llms-help-design-our-next-medicines-and-materials-0409`, [C105], ICLR 2025)

"Towards Safer Large Language Models through Machine Unlearning": Anybody Can Prompt (ABCP), June 8, 2024. (`https://anybodycanprompt.substack.com/p/machine-unlearning-selective-knowledge`, [C88], ACL 2024)

"For Better Answers, Generate Reference Text": DeepLearning.AI - The Batch - Weekly Issues - Issue 195, May 3, 2023. (`https://www.deeplearning.ai/the-batch/issue-195/`, [C75], ICLR 2023)

## Invited Talks

Keynote speech at WSDM Workshop on Generative AI for Recommender Systems and Personalization, Boise, ID, February 2026

Talk in Scientific AI Winter School at University of Puerto Rico, January 2026

Lecture at NSF RET in Engineering, Notre Dame, June 2025

Talk at CECAM Workshop - Machine Learning Advances for Molecular and Materials Property Predictions, Notre Dame, IN, July 2025

Talk at Northwestern Statistics & Data Science Seminar, Evanston, IL, May 2025

Talk at Illinois Computer Science Seminar, Urbana-Champaign, IL, January 2025

Keynote speech at Amazon Shopping Science Summit, California, December 2024

Talk at Meta, London, UK, October 2024

Talk at Old Dominion University, Norfolk, VA, October 2024

Talk at Technical University of Munich, Munich, Germany, July 2024

Talk at UCLA, Los Angeles, CA, April 2024

Talk at UCSB, Santa Barbara, CA, April 2024

Talk at Procter & Gamble, Teams, March 2024

Talk at Roblox, Zoom, February 2024

Talk at Brandeis University, Zoom, December 2023

Talk at King Abdullah University of Science and Technology, Jeddah, Saudi Arabia, November 2023

Talk at Xi'an Jiaotong University, Xi'an, September 2023

Talk at Renmin University of China, Beijing, September 2023

Talk at Peking University, Beijing, September 2023

Talk at Tsinghua University, Beijing, September 2023

Talk at Nanyang Technological University, Singapore, August 2023

Panelist at ACM SIGKDD MLG/DLG Workshop, Long Beach, CA, August 2023

Talk at University of Michigan, Ann Arbor, MI, July 2023

Talk at Google Research, Mountain View, CA, June 2023

Talk at Amazon, Palo Alto, CA, June 2023

Talk at University of Chicago NLP Seminar, February 2023

Panelist at ACM SIGKDD MLG/DLG Workshop, Washington D.C., August 2022

Lecture at NSF RET in Engineering, Notre Dame, July 2022

Keynote speech at NAACL DLG4NLP Workshop, Seattle, July 2022

Panelist at ICLR DLG Workshop, Zoom, April 2022

Keynote speech at ACM WSDM MLoG Workshop, Zoom, February 2022

Keynote speech at IEEE/WIC/ACM WI-IAT Special Track on Social Computing, Zoom, December 2021

Guest lecture in Madison STEAM Academy (3rd, 4th, and 5th graders), South Bend, October 2021

Talk at NEC Laboratories Europe NLP Seminar, Zoom, May 2021

Guest lecture in "CSE 40625 Machine Learning," Notre Dame, April 2021

Talk at Amazon Search Query Undertanding Team, Zoom, November 2020

Guest lecture in "CSE 40884 Network Science," Notre Dame, October 2020

Panelist at ACM SIGKDD TrueFacts Workshop, Zoom, August 2020

Talk at Microsoft Cognitive Services Research, Zoom, August 2020

Talk at SPIE Artificial Intelligence and Machine Learning for Multi-Domain Operations, Zoom, May 2020

Talk at Saint Mary's College, Notre Dame, February 2020

Talk at IBM TJ Watson Laboratory, Yorktown Heights, February 2020

Talk at Yahoo! Research, New York City, July 2019

## PhD Students Graduated

**Daheng Wang**, *Graduated July 2021*
Dissertation: *Learning Complementarity and Dynamics for Behavior Modeling*
First employment: *Applied Scientist at Amazon*
ACM SIGKDD Student Travel Awards 2018/2019
Notre Dame Graduate School Conference Presentation Grant 2020

**Tong Zhao**, *Graduated May 2022*
Dissertation: *Learning to Augment Data in Graphs*
First employment: *Research Scientist at Snap*
Amazon Post-Intern Fellowship
Snap Research Fellowship
ACM SIGIR Student Travel Awards 2020

**Wenhao Yu**, *Graduated August 2023*
Dissertation: *Knowledge Augmentation for NLP and Beyond*
First employment: *Senior Research Scientist at Tencent AI*
ND CSE Select Fellowship
NAACL Student Travel Award 2022
ND CSE Outstanding Research Assistant Award 2023
Bloomberg Data Science Fellowship 2023

**Qingkai Zeng**, *Graduated December 2024*
Dissertation: *Improving Scientific Information Extraction w/ Text Generation*
First Employment: *Postdoctoral Research Associate at Amazon*
Employment: *Assistant Professor in Nankai University*
Kaneb Center Outstanding Teaching Assistant Award 2022

**Zhihan Zhang**, *Graduated June 2025*
Dissertation: *Instructing Language Models as Intelligent Assistants*
First employment: *Applied Scientist at Amazon*

**Lingbo Tong**, *Graduated June 2025*
Dissertation: *Nonlinear Structural Equation Modeling with Text Data*
First Employment: *Assistant Professor in University of Wisconsin-Madison*
Joint Ph.D. in Psychology and Computer Science & Engineering

## Master Students Graduated

**Xueying Wang**, *Graduated May 2019*
Thesis: *Improving Information Extraction via Truth Finding with Data-Driven Commonsense*
First employment: *Data Scientist at MIT Sloan School of Management*
Current employment: *Data Scientist at FedEx*

**Bhakti Sharma**, *Graduated July 2020*
Project: *Review Analysis: Analyzing Sentiment and Predicting Rating Score from Amazon Reviews using BERT*
First employment: *Software Engineer at VISO Trust*

**Jianing Li**, *Graduated November 2020*
Project: *Empirical Analysis on Training Source-Domain Models for Transfer Learning to Predict Phonon Properties with Electron Properties*

## Past Students Supervised

**Eric Zhang**, *Trinity High School Student* (September 2018–July 2020)

**Michael Florin**, *Trinity High School Student* (September 2019–July 2020)

**Rebekah Fang** and **Libby Garnett**, *Trinity High School Students* (August 2020–December 2021)
Won the 2nd place in the 2021 Northern Indiana Regional Science and Engineering Fair (NIRSEF). Recommended to the 33rd Annual Hoosier Science and Engineering Fair (HSEF).

**Ishita Masetty**, *Penn High School Student* (September–December 2022)

**Jake Ciliberti**, *Penn High School Student* (September–December 2022)

**Albert Lu**, *Culver Academies High School Student* (August 2022–December 2024)
Won the 1st place in the 2023 and 2024 NIRSEF. Recommended to the 35th HSEF.
Attended and presented in the 2023 SIGKDD Conference on Knowledge Discovery and Data Mining, Los Angeles, CA

**Kaiyi Zhao**, *Penn High School Student* (June–August 2025)

**Matthew Malir**, *Undergraduate Student* (January–May 2018)

**Sebastian Miner**, *Undergraduate Student* (January–May 2018)

**Matthew Schoenbauer**, *Undergraduate Student* (September 2018–May 2019)

**Yuhan (Tina) Wu**, *Undergraduate Student* (September 2018–May 2019)

**Chan Hee Song**, *Undergraduate Student* (September 2019–March 2020)

**Xiangyu Dong**, *Undergraduate Student* (September 2019–July 2020)

**Tianze Zheng**, *Undergraduate Student* (September 2019–July 2020)

**Bo Ni**, *Undergraduate Student* (September 2019–July 2021)
Honorable Mention in the Computing Research Association's (CRA) Outstanding Undergraduate Researcher Award 2021

**Alvin Alaphat**, *Undergraduate Student* (January–May 2020)

**Luke Marushack**, *Undergraduate Student* (January–May 2020)

**Michael Lee**, *Undergraduate Student* (May 2020–May 2021)

**Ann Hermann**, *Undergraduate Student* (May 2020–August 2021)

**Joseph Kuebler**, *Undergraduate Student* (August–November 2020)

**Facundo Munoz**, *Undergraduate Student* (August–November 2020)

**Fangcong Yin**, *Undergraduate Student* (August–November 2020)
Honorable Mention in the Computing Research Association's (CRA) Outstanding Undergraduate Researcher Award 2022

**Jackson Ballow**, *Undergraduate Student* (September 2021–May 2022)
**Ryan Pairitz**, *Undergraduate Student* (January–May 2022)
**Kekoa Wang**, *Undergraduate Student* (January–May 2022)
**Longqing Chen**, *Undergraduate Student* (September–December 2021)
**William Porter**, *Undergraduate Student* (July–December 2022)
**Weike Fang**, *Undergraduate Student* (January 2022–May 2023)
**David Liu**, *Undergraduate Student* (May–December 2023)
**John Flanagan**, *Undergraduate Student* (August 2023–December 2024)
**Lang Li**, *Undergraduate Student* (August 2024–May 2025)
**Ethan Sotka**, *Undergraduate Student* (August–December 2025)
**Jack Keller**, *Undergraduate Student* (August–December 2025)
**Ralph Gonzalez**, *Undergraduate Student* (August–December 2025)
**Christopher Bond**, *Undergraduate Student* (August–December 2025)
**Tim Gunn**, *Undergraduate Student* (August–December 2025)
**Wenhao Yu**, *Visiting Undergraduate Student* (May–August 2018)
**Yu Shu**, *Visiting Undergraduate Student* (May–August 2018)
**Chuchen Deng**, *Visiting Undergraduate Student* (May–August 2019)
**Yihong Ma**, *Visiting Undergraduate Student* (May–August 2019)
**Xin Liu**, *Visiting Undergraduate Student* (July–August 2019)
**Wei Peng**, *Visiting Undergraduate Student* (July–August 2019)
**Mengxia Yu**, *Visiting Undergraduate Student* (July–August 2019)
**Kaifeng Yu**, *Visiting Undergraduate Student* (July–August 2019)
**Zhihan Zhang**, *Visiting Undergraduate Student* (July–August 2019)
**Yang Zhou**, *Visiting Undergraduate Student* (July–August 2019)
**Zaitang Li**, *Visiting Undergraduate Student* (September 2019–July 2020)
**Yunxiang Yan**, *Visiting Undergraduate Student* (September 2021–August 2022)
**Qi Liu**, *Visiting Undergraduate Student* (July 2022–August 2022)
**Kairui Hu**, *Visiting Undergraduate Student* (May–July 2023)
**Yuxuan Kuang**, *Visiting Undergraduate Student* (August–December 2023)
**Quang Dao**, *Visiting Undergraduate Student* (May–September 2025)
**Beibei Liu**, *Visiting Undergraduate Student* (June–July 2025)
**Han Yan**, *Visiting Undergraduate Student* (June–July 2025)
**Tengchao Yang**, *Visiting Undergraduate Student* (June–July 2025)
**Sichen Guo**, *Visiting Undergraduate Student* (July–August 2025)
**Xuanjia Qiao**, *Visiting Undergraduate Student* (July–August 2025)
**Xuan Zhang**, *Virtually Visiting Undergraduate Student* (July 2022–August 2022)

**Dong Liu**, *Virtually Visiting Undergraduate Student* (July 2022–August 2022)

**Yuchen Li**, *Virtually Visiting Undergraduate Student* (July 2022–August 2022)

**Zijian Hu**, *Visiting Master Student* (July–August 2019)

**Tianwen Jiang**, *Visiting Ph.D. Student* (September 2018–August 2019)

**Zhenyu Wu**, *Visiting Ph.D. Student* (February 2024–February 2025)

**Orlando Barreto**, *Ph.D. Student in AME* (September–December 2025)
Scientific AI Fellow

## Current Postdoc Supervised

**Sobin Alosious**, *Lucy Institute Postdoc Fellow* (since August 2024)
Co-advised with Prof. Tengfei Luo (ND AME)

## Current Students Supervised

**Mengxia Yu**, *Ph.D. Candidate* (since August 2020)
Notre Dame CSE Select Fellowship

**Gang Liu**, *Ph.D. Candidate* (since August 2021)
ACM SIGKDD Student Travel Award 2022
Notre Dame Graduate School Conference Presentation Grant 2022
IBM PhD Fellowship 2024

**Bang Nguyen**, *Ph.D. Candidate* (since August 2022)

**Zheyuan (Frank) Liu**, *Ph.D. Candidate* (since August 2023)

**Zhaoxuan Tan**, *Ph.D. Candidate* (since August 2023)

**Noah Ziems**, *Ph.D. Student* (since May 2022)
Kaneb Center Outstanding Teaching Assistant Award 2023

**Hy Dang**, *Ph.D. Student* (since August 2022)

**Eric Inae**, *Ph.D. Student* (since August 2022)
Notre Dame Dean's Fellowship

**Mengzhao Jia**, *Ph.D. Student* (since August 2023)

**Yining Lu**, *Ph.D. Student* (since August 2024)

**Yihan Zhu**, *Ph.D. Student* (since August 2024)

**Weijiang (Vicky) Li**, *Ph.D. Student* (since January 2026)

**Jinduo Guo**, *Ph.D. Student* (since June 2026)

**Renzheng Zhang**, *Ph.D. Student in AME* (since January 2026)
Scientific AI Fellow

**Cesar Cervera**, *MSCSE Student* (since June 2025)

**Olivia Zino**, *Undergraduate Student* (since August 2024)

**Thomas Mitchell**, *Undergraduate Student* (since January 2025)

**Zach Petko**, *Undergraduate Student* (since January 2025)

**Vince Andriacco**, *Undergraduate Student* (since January 2025)

**John Kim**, *Undergraduate Student* (since January 2025)

**Katherine O'Roark** (SMC), *Undergraduate Student* (since January 2025)

**Patrick Williams**, *Undergraduate Student* (since August 2025)

**Luke Cao**, *Undergraduate Student* (since August 2025)

**Max Johnson**, *Undergraduate Student* (since August 2025)

**Kristofer Ulanday**, *Undergraduate Student* (since January 2026)

**Vazgen Manukyan**, *Penn High School Student* (since August 2025)

## Teaching Courses

**CS 412 Introduction to Data Mining**, *University of Illinois*
Summer 2017

**CSE 40647/60647 Data Science**, *University of Notre Dame*
Fall 2017/2018/2019/2020/2021/2022/2025, Spring 2018

**CSE 60326 Computational Behavior Modeling**, *University of Notre Dame*
Spring 2020/2021/2022/2023

**CSE 60556 Large Language Models**, *University of Notre Dame*
Fall 2024/2025

## Professional Activities

### Professional Service

NSF CSGrad4US Coach (2024)
NSF CISE IIS Panelist (2020, ×3 in 2022, ×3 in 2023)
NIH DABP-PSE-IRAP Panelist (2021)
NIH-NIAID ZAI1 RK-M Panelist (2023)
IEEE Senior Member Application Panelist (2024)
NSF CSGrad4US Mentor (2024)

### Departmental Service

Graduate admission committee at ND CSE (2017–2023)
Social media committee at ND CSE (2022–2023)
Mentoring chair of an assistant professor at ND CSE (2024)
CPRT committee at ND CSE (2023–*present*)
Undergraduate study committee at ND CSE (2024–*present*)
Organizing department seminars at ND CSE (2024–*present*)

### Ph.D. Dissertation Committee

**Dr. Nicholas Botzer**, Notre Dame Comp. Sci. & Eng.
**Dr. Yifan Ding**, Notre Dame Comp. Sci. & Eng.
**Dr. Kaiwen Dong**, Notre Dame Comp. Sci. & Eng.
**Dr. Yipu Du**, Notre Dame Aero. & Mech. Eng.

**Dr. Maria Glenski**, Notre Dame Comp. Sci. & Eng.
**Dr. Yuan Gong**, Notre Dame Comp. Sci. & Eng.
**Dr. Daniel Gonzalez**, Notre Dame Comp. Sci. & Eng.
**Dr. Zhichun Guo**, Notre Dame Comp. Sci. & Eng.
**Dr. Justus Hibshman**, Notre Dame Comp. Sci. & Eng.
**Dr. Chao Huang**, Notre Dame Comp. Sci. & Eng.
**Dr. Steven Krieg**, Notre Dame Comp. Sci. & Eng.
**Dr. Suhansanu Kumar**, UIUC Computer Science
**Dr. Ann Franchesca Laguna**, Notre Dame Comp. Sci. & Eng.
**Dr. Peixian Liang**, Notre Dame Comp. Sci. & Eng.
**Dr. Qi Li**, Notre Dame Comp. Sci. & Eng.
**Dr. Zhenwen Liang**, Notre Dame Comp. Sci. & Eng.
**Dr. Jinfeng Lin**, Notre Dame Comp. Sci. & Eng.
**Dr. Guoqiang Liu**, Notre Dame Biology
**Dr. Zhiyu Liu**, Notre Dame Electrical Engineering
**Dr. EK Lu**, Notre Dame Psychology
**Dr. Qing Lu**, Notre Dame Comp. Sci. & Eng.
**Dr. Yihong Ma**, Notre Dame Comp. Sci. & Eng.
**Dr. Kenton Murray**, Notre Dame Comp. Sci. & Eng.
**Dr. Alireza Partovi**, Notre Dame Electrical Engineering
**Dr. Darcey Riley**, Notre Dame Comp. Sci. & Eng.
**Dr. Mandana Saebi**, Notre Dame Comp. Sci. & Eng.
**Dr. Munira Syed**, Notre Dame Comp. Sci. & Eng.
**Dr. Pamela Bilo Thomas**, Notre Dame Comp. Sci. & Eng.
**Dr. Yijun Tian**, Notre Dame Comp. Sci. & Eng.
**Dr. Tianchen Wang**, Notre Dame Comp. Sci. & Eng.
**Dr. Qianlong Wen**, Notre Dame Comp. Sci. & Eng.
**Dr. Xian Wu**, Notre Dame Comp. Sci. & Eng.
**Dr. Qiang Yang**, KAUST Comp. Sci.
**Dr. Changlong Yu**, HKUST Comp. Sci. & Eng.
**Dr. Charley Zhang**, Notre Dame Comp. Sci. & Eng.
**Dr. Chuxu Zhang**, Notre Dame Comp. Sci. & Eng.
**Dr. Hao Zheng**, Notre Dame Comp. Sci. & Eng.
**Dr. Shenglong Zhu**, Notre Dame Comp. Sci. & Eng.
**Taicheng Guo**, Notre Dame Comp. Sci. & Eng.
**Doheon Han**, Notre Dame Comp. Sci. & Eng.
**Yerong Li**, UIUC Information School
**Yiren Liu**, UIUC Information School
**Nishchal Sapkota**, Notre Dame Comp. Sci. & Eng.
**Ken Sible**, Notre Dame Comp. Sci. & Eng.
**Aarohi Srivastava**, Notre Dame Comp. Sci. & Eng.
**Chihiro Taguchi**, Notre Dame Comp. Sci. & Eng.
**Daniel Worae**, Notre Dame Comp. Sci. & Eng.
**Gelei Xu**, Notre Dame Comp. Sci. & Eng.
**Yujun Zhou**, Notre Dame Comp. Sci. & Eng.

### Organizing Committee

*2026* Tutorial Chair, ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

*2026* Co-Chair, the Workshop on Multilinguality in the Era of Large Language Models (MeLLMs) at ACL

*2025* Program Co-Chair, Midwest Speech and Language Days (MSLD)

*2025* Tutorial Chair, ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

*2025* Co-Chair, the 4th Workshop on Knowledge Augmented Methods for NLP (KnowledgeNLP) at NAACL

*2024* Co-Chair, the 3rd Workshop on Knowledge Augmented Methods for NLP (KnowledgeNLP) at ACL

*2024* Web Chair, ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

*2023* Web Chair, ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

*2023* Co-Chair, the 1st Workshop on Artificial Intelligence for Science of Science (AI4SciSci) at ICDM

*2023* Co-Chair, the 2nd Workshop on Knowledge Augmented Methods for NLP (KnowledgeNLP) at KDD

*2023* Co-Chair, the 1st Workshop on Knowledge Augmented Methods for NLP (KnowledgeNLP) at AAAI

*2022* Co-Chair, the 1st Workshop on Knowledge Discovery and Data Mining in IT Operations (BigData-IT) at IEEE BigData

*2022* Co-Chair, Workshop on Misinformation and Misbehavior Mining on the Web & Making a Credible Web for Tomorrow (MIS2-TrueFact) at ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

*2022* Doctoral Consortium Chair, ACM International Conference on Web Search and Data Mining (WSDM)

*2021* Co-Chair, Workshop on Misinformation and Misbehavior Mining on the Web (MIS2) at ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)

*2019* Publication Chair, ACM International Conference on Knowledge Management (CIKM)

*2019* Publicity Chair, Int'l Conf. on Computational Data and Social Networks (CSoNet)

*2018* Co-Chair, Workshop on Misinformation and Misbehavior Mining on the Web (MIS2) at International Conference on Web Search and Data Mining (WSDM)

*2016* Co-Chair, Special session on Big Behavioral Data Analytics at IEEE International Conference on Data Science and Advanced Analytics (DSAA)

### (Senior) Program Committee / Reviewer

ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD):
(PC: 2018–2021, SPC: 2022–2026)

ACM International Conference on Knowledge Management (CIKM):
(PC: 2017–2019, SPC: 2020–2026)

The Web Conference (TheWebConf/WWW):
(PC: 2018–2022, SPC/AC: 2023-2026)

International Conference on Web Search and Data Mining (WSDM):
(PC: 2019–2022)

Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD):
(SPC: 2025)

AAAI Conference on Artificial Intelligence (AAAI):
(PC: 2017–2021, SPC: 2022–2024)

ACL Rolling Review:
(Reviewer: Feb/Apr/June/Aug/Oct/Dec 2024, Feb/May 2025, AC: Oct 2025, Jan 2026)

Conference on Neural Information Processing Systems (NeurIPS):
(Reviewer: 2020–2025)

International Conference on Learning Representations (ICLR):
(Reviewer: 2021–2025)

SIAM Conference on Data Mining (SDM):
(PC: 2018–2021; SPC: 2025)

### Journal Service

Editor: IEEE Bulletin of the Technical Committee on Data Engineering, December 2024, Vol. 48 No. 4: `http://sites.computer.org/debull/A24dec/issue1.htm`

Associate Editor: ACM Computing Surveys (CSUR)

Reviewer:

Knowledge and Information Systems (*KAIS*)
IEEE Transactions on Big Data (*TBD*)
ACM Transactions on Intelligent Systems and Technology (*TIST*)
ACM Transactions on Knowledge Discovery from Data (*TKDD*)
IEEE Transactions on Knowledge and Data Engineering (*TKDE*)
Transactions on Information Systems (*TOIS*)
IEEE Transactions on Pattern Analysis and Machine Intelligence (*TPAMI*)
IEEE Transactions on Neural Networks and Learning Systems (*TNNLS*)

### Professional Membership

IEEE (92705271): Member (2015–2022), Senior Member (2023–)
ACM (5577262): Member (2018–2022), Senior Member (2023–)
CCF (92716M): Member (2018–)
ACL (mjiang89): Member (2023–2027)