MENG JIANG, PH.D.

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WORK EXPERIENCE

Assistant Professor   *2017 – present*
University of Notre Dame
Department of Computer Science and Engineering

Postdoctoral Research Associate   2015 – 2017
Main Site: (Advisor: Prof. Jiawei Han)
- University of Illinois at Urbana-Champaign
- Department of Computer Science
Secondary Site: (Advisor: Prof. VS Subrahmanian)
- University of Maryland
- Institute for Advanced Computer Studies

EDUCATION

Ph.D.	Tsinghua University, Computer Science	2015
	Thesis: *Modeling Complex User Behaviors in Social Media*	
	Graduated with honors (Advisor: Prof. Shiqiang Yang)	
	Visiting researcher at CMU (Advisor: Prof. Christos Faloutsos)	
B.Eng.	Tsinghua University, Computer Science	2010

HONORS AND AWARDS

ACM CIKM Conference Best Reviewer Award	2021
ACM SIGSOFT (ICSE) Distinguished Paper Award	2021
ACM SIGKDD-DLG Workshop Best Paper Award	2020
ACM WSDM Conference Outstanding PC	2020
Notre Dame Faculty Research Award	2019
ACM SIGKDD Conference "Best of KDD 2014"	2014
ACM SIGKDD Conference Travel Award	2014

SCHOLAR PAGES

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

Citations	3425
h-index	29
i10-index	57

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

Grants and Gifts

External fund: Total amount: $2,738,333; Total credit: **$1,310,735**

"III: Small: Comprehensive Methods to Learn to Augment Graph Data"
  March 1, 2022 – February 28, 2025
  Funding Vehicle: NSF IIS-2146761
  Amount: **$499,999** (Credit: 100%)
  Role: Sole PI

"Collaborative Research: Advancing STEM Online Learning by Augmenting Accessibility with Explanatory Captions and AI"
  September 15, 2021 – August 31, 2024
  Funding Vehicle: NSF IIS-2119531
  Amount: $849,994 (Credit: 22%; **$190,070**)
  Role: ND Lead PI

"CRII: III: Beyond Similarity Learning: Complementarity Learning for Contextual Behavior Modeling"
  October 1, 2019 – September 30, 2021 (*Completed*)
  Funding Vehicle: NSF IIS-1849816
  Amount: **$174,910** (Credit: 100%)
  Role: Sole PI

"SHF: Medium: Collaborative Research: Semantically-Enhanced Software Traceability for Supporting Human-Centric Tasks"
  August 15, 2019 – August 14, 2023
  Funding Vehicle: NSF CCF-1901059
  Amount: $1,035,030 (Credit: 33%; **$341,556**)
  Role: Co-PI

"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

Unrestricted Gift: "Automated Graph Data Augmentation with Reinforcement Learning"
  January 31, 2022
  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: "Explaining Recommender Systems with Counterfactual Examples"
  January 1, 2022 – December 31, 2022
  Funding Vehicle: Notre Dame International

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 (*Completed*)
Amount: $43,811 (ND Research) (Credit: 75%; **$33,281**)
Role: ND CSE Lead PI

*(@ indicates supervised graduate students. * indicates supervised undergraduate students.)*

PUBLICATIONS

Conference Papers (12 ACM SIGKDD full papers, etc.)

C65 @Yu, W., Zhu, C., Qin, L., @Zhao, T. **Jiang, M.** "Diverse Generative Reasoning on Commonsense Knowledge Graphs", 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 *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. (Long, 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, Oral; 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)

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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% = (754+520)/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% = (754+520)/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. (oral, 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. (oral)

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 Base 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 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. (**best paper finalist** and invited to TKDD special issue; acceptance rate 14.6% = 151/1036)

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 (8 IEEE Trans. on Knowledge & Data Eng. (TKDE), etc.)

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.* In press. (IF=10.282)

J28 **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.* In press. (IF=2.861)

J27 *Chou, D., **Jiang, M.** "A Survey on Data-Driven Network Intrusion Detection", *ACM Computing Surveys.* 54:9, 1-36, December 2022. (IF=10.282)

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.* Early access. (IF=8.793)

J25 @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.* Early access. (IF=6.977)

J24 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.* Early access. (IF=6.977)

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*, August 2021.

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)

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)

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)

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)

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)

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)

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)

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.

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)

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)

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)

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)

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=6.977)

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=6.977)

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=6.977)

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=2.936)

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=2.200)

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=6.977)

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=3.210)

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=6.977)

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=6.977)

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=2.313)

Workshop Papers

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

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.

Invited Book Chapters

BC2 **Jiang, M**. "Behavior Modeling in Social Networks" Encyclopedia of Social Network Analysis and Mining, Springer, New York, NY, 2017.

BC1 **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.

Preprints

P31 @Zhao, T., @Liu, G., Günnemann, S., **Jiang, M.** "Graph Data Augmentation for Graph Machine Learning: A Survey", in *arXiv preprint arXiv:2202.08871*, February 2022.

P30 *Kuebler, J., @Tong, L., **Jiang, M.** "Multi-Round Parsing-based Multiword Rules for Scientific OpenIE", in *arXiv preprint arXiv:2108.02074*, August 2021. (accepted in ICBK 2021)

P29 @Zeng, Q., Lin, J., Yu, W., Cleland-Huang, J., **Jiang, M.** "Enhancing Taxonomy Completion with Concept Generation via Fusing Relational Representations", in *arXiv preprint arXiv:2106.02974*, June 2021. (accepted in KDD 2021)

P28 @Zhao, T., @Liu, G., @Wang, D., @Yu, W., **Jiang, M.** "Counterfactual Graph Learning for Link Prediction", in *arXiv preprint arXiv:2106.02172*, June 2021.

P27 **Jiang, M.** "Cross-Network Learning with Partially Aligned Graph Convolutional Networks", in *arXiv preprint arXiv:2106.01583*, June 2021. (accepted in KDD 2021)

P26 Gu, S., **Jiang, M.**, Guzzi, P.H., Milenkovic, T. "Modeling Multi-scale Data via a Network of Networks", in *arXiv preprint arXiv:2105.12226*, May 2021.

P25 @Yu, W., Zhu, C., @Zhao, T., Guo, Z., **Jiang, M.** "Sentence-Permuted Paragraph Generation", in *arXiv preprint arXiv:2104.07228*, April 2021. (accepted in EMNLP 2021)

P24 @Wang, D., Shiralkar, P., Lockard, C., Huang, B., Dong, X.L., **Jiang, M.** "TCN: Table Convolutional Network for Web Table Interpretation", in *arXiv preprint arXiv:2102.09460*, February 2021. (accepted in TheWebConf 2021)

P23 Guo, Z., Zhang, C., @Yu, W., Herr, J., Wiest, O., **Jiang, M.**, Chawla, N.V. "Few-Shot Graph Learning for Molecular Property Prediction", in *arXiv preprint arXiv:2102.07916*, February 2021. (accepted in TheWebConf 2021)

P22 @Zeng, Q., @Yu, M., @Yu, W., Jiang, T., Weninger, T., **Jiang, M.** "Validating Label Consistency in NER Data Annotation", in *arXiv preprint arXiv:2101.08698*, January 2021. (accepted in Eval4NLP 2021)

P21 @Zhao, T., *Ni, B., @Yu, W., Guo, Z., Shah, N., **Jiang, M.** "Action Sequence Augmentation for Early Graph-based Anomaly Detection", in *arXiv preprint arXiv:2010.10016*, October 2020. (accepted in CIKM 2021)

P20 @Yu, W., Wu, L., @Zeng, Q., Deng, Y., Mahindru, R., Guven, S., **Jiang, M.** "Technical Question Answering across Tasks and Domains", in *arXiv preprint arXiv:2010.09780*, October 2020. (accepted in NAACL 2021)

P19 @Yu, W., Zhu, C., *Li, Z., Hu, Z., Wang, Q., Ji, H., **Jiang, M.** "A Survey of Knowledge-Enhanced Text Generation", in *arXiv preprint arXiv:2010.04389*, October 2020.

P18 *Dong, X., @Yu, W., Zhu, C., **Jiang, M.** "Injecting Entity Types into Entity-Guided News Generation", in *arXiv preprint arXiv:2009.13401*, September 2020. (accepted in EMNLP 2021)

P17 *Chou, D., **Jiang, M.** "Data-Driven Network Intrusion Detection: A Taxonomy of Challenges and Methods", in *arXiv preprint arXiv:2009.07352*, September 2020. (accepted in ACM Computing Surveys)

P16 **Jiang, M.**, Jung, T., Karl, R., @Zhao, T. "Federated Dynamic GNN with Secure Aggregation", in *arXiv preprint arXiv:2009.07351*, September 2020.

P15 Liu, Z., **Jiang, M.**, Lin, H. "Specification Mining and Automated Task Planning for Autonomous Robots based on a Graph-based Spatial Temporal Logic" in *arXiv preprint arXiv:2007.08451*, July 2020.

P14 @Jiang, T., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "Canonicalizing Open Knowledge Bases with Multi-Layered Meta-Graph Neural Network" in *arXiv preprint arXiv:2006.09610*, June 2020.

P13 @Zhao, T., Liu, Y., Neves, L., Woodford, O., **Jiang, M.**, Shah, N. "Data Augmentation for Graph Neural Networks" in *arXiv preprint arXiv:2006.06830*, June 2020. (accepted in AAAI 2021)

P12 @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 *arXiv preprint arXiv:2006.06820*, June 2020. (accepted in KDD 2020)

P11 *Zhou, Y., @Zhao, T., **Jiang, M.** "A Probabilistic Model with Commonsense Constraints for Pattern-based Temporal Fact Extraction" in *arXiv preprint arXiv:2006.06436*, June 2020. (accepted in ACL-FEVER 2020)

P10 @Yu., W., Wu., L., @Zeng, Q., Deng, Yu, Tao, S., **Jiang, M.** "Crossing Variational Autoencoders for Answer Retrieval" in *arXiv preprint arXiv:2005.02557*, May 2020. (accepted in ACL 2020)

P9 Zhu, C., Hinthorn, W., Xu, R., Zeng, @Q., Zeng, M., Huang, X., **Jiang, M.** "Boosting Factual Correctness of Abstractive Summarization with Knowledge Graph" in *arXiv preprint arXiv:2003.08612*, March 2020. (accepted in NAACL-HLT 2021)

P8 Saebi, M., Krieg, S., Zhang, C., **Jiang, M.**, Chawla, N.V. "Heterogeneous Relational Reasoning in Knowledge Graphs with Reinforcement Learning" in *arXiv preprint arXiv:2003.06050*, March 2020. (won the **first place** in ACM Student Research Competition – Graduate Winners)

P7 *Ni, B., @Guo, Z., @Li, J., **Jiang, M.** "Improving Generalizability of Fake News Detection Methods using Propensity Score Matching" in *arXiv preprint arXiv:2002.00838*, January 2020.

P6 Zhang, C., Yao, H., Huang, C., **Jiang, M.**, Li, Z., Chawla, N.V. "Few-Shot Knowledge Graph Completion" in *arXiv preprint arXiv:1911.11298*, November 2019. (accepted in AAAI 2020)

P5 Yao, H., Zhang, C., Wei, Y., **Jiang, M.**, Wang, S., Huang, J., Chawla, N.V., Li, Z. "Graph Few-Shot Learning via Knowledge Transfer" in *arXiv preprint arXiv:1910.03053*, October 2019. (accepted in AAAI 2020)

P4 Jiang, T., Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "Constructing Information-Lossless Biological Knowledge Graphs from Conditional Statements" in *arXiv preprint arXiv:1907.00720*, June 2019. (accepted in KDD 2019)

P3 Liu, J., Zhang, J., Ding, Y., Xu, X., **Jiang, M.**, Shi, Y. "PBGen: Partial Binarization of Deconvolution-Based Generators for Edge Intelligence" in *arXiv preprint arXiv:1802.09153*, February 2018. (accepted in TCADICS)

P2 Shang, J., Shi, X., **Jiang, M.**, Liu, L., Hanratty, T., Han, J. "Contrast Subgraph Mining from Coherent Cores" in *arXiv preprint arXiv:1802.06189*, February 2018.

P1 **Jiang, M.**, Shang, J., Cassidy, T., Ren, X., Kaplan, L., Hanratty, T., Han, J. "MetaPAD: Meta Patten Discovery from Massive Text Corpora" in *arXiv preprint arXiv:1703.04213* , March 2017. (accepted in KDD 2017)

INVITED TALKS

Keynote speech at ACM WSDM'22 Workshop Machine Learning on Graphs (MLoG), Phoenix, Arizona, February 2022

Keynote speech at IEEE/WIC/ACM WI-IAT'21 Special Track on Social Computing, Zoom, December 2021

Harbin Institute of Technology, Zoom, November 2021

Madison STEAM Academy (3rd, 4th, and 5th graders), October 2021

NEC Laboratories Europe, Zoom, May 2021

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

Amazon Research, Zoom, November 2020

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

ACM SIGKDD TrueFacts Workshop Panel, Zoom, August 2020

Microsoft Research, Zoom, August 2020

Conference Follow-up from Artificial Intelligence and Machine Learning for Multi-Domain Operations, Zoom, May 2020

Saint Mary's College, Notre Dame, Indiana, February 2020

IBM TJ Watson Laboratory, Yorktown Heights, New York, February 2020

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

IBM TJ Watson Laboratory, Yorktown Heights, New York, October 2018

Nanjing University, Nanjing, Jiangsu, December 2017

University of Electronic Science and Technology of China, Chengdu, Sichuan, December 2017

Zhejiang University, Hangzhou, Zhejiang, November 2017

Tsinghua University, Beijing, November 2017

Binghamton University, Binghamton, New York, March 2017

Georgia State University, Atlanta, Georgia, March 2017

University of Oregon, Eugene, Oregon, March 2017

Rensselaer Polytechnic Institute, Troy, New York, February 2017

University of Maryland, Baltimore County, Baltimore, Maryland, February 2017

Temple University, Philadelphia, Pennsylvania, January 2017

The Ohio State University, Columbus, Ohio, October 2016

University of Massachusetts Boston, Boston, Massachusetts, November 2015

PhD Student Graduated

Daheng Wang, *Graduated July 2021*
Thesis: *Learning Complementarity and Dynamics for Behavior Modeling*
First employment: *Applied Scientist at Amazon*

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 second place in the 2021 Northern Indiana Regional Science and Engineering Fair. Recommended to the 33rd Annual Hoosier Science and Engineering Fair (HSEF).

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

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

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

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)
Selected for honorable mention for the Computing Research Association's (CRA) Outstanding Undergraduate Researcher Award for 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)

Longqing Chen, *Undergraduate Student* (September–December 2021)

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)

Xueying Wang, *Master Student* (January 2018–May 2019)

Bhakti Sharma, *Master Student* (May–July 2020)

Jianing Li, *Master Student* (September 2019–November 2020)

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

Daheng Wang, *PhD Student* (August 2017–June 2021)

Tianwen Jiang, *Visiting PhD Student* (September 2018–August 2019)

CURRENT STUDENTS SUPERVISED

Jackson Ballow, *Undergraduate Student* (since September 2021)

Yunxiang (Ryan) Yan, *Undergraduate Student* (since September 2021)

Weike Fang, *Undergraduate Student* (since January 2022)

Ryan Pairitz, *Undergraduate Student* (since January 2022)

Kekoa Wang, *Undergraduate Student* (since January 2022)

Tong Zhao, *Ph.D. Candidate* (since September 2017)
    Proposal thesis: *Learning to Enhance Graph Anomaly Detection*
    Awarded Snap Research Fellowship ($10,000)
    Awarded Amazon Post-Intern Fellowship ($10,000 AWS credit)

Qingkai Zeng, *Ph.D. Candidate* (since January 2018)
    Proposal thesis: *Improving Scientific Information Extraction with Text Generation*

Wenhao Yu, *Ph.D. Student* (since July 2019)
    Notre Dame CSE Select Fellowship

Lingbo Tong, *Ph.D. Student* (since August 2020)
    Joint Ph.D. in Psychology and Computer Science and Engineering

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

Gang Liu, *Ph.D. Student* (since August 2021)

Zhihan Zhang, *Ph.D. Student* (since August 2021)

Teaching Courses

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

CSE 40647/60647 Data Science, *University of Notre Dame* (Fall 2017)

CSE 40647/60647 Data Science, *University of Notre Dame* (Spring 2018)

CSE 40647/60647 Data Science, *University of Notre Dame* (Fall 2018)

CSE 40647/60647 Data Science, *University of Notre Dame* (Fall 2019)

CSE 60326 Computational Behavior Modeling, *University of Notre Dame* (Spring 2020)

CSE 40647/60647 Data Science, *University of Notre Dame* (Fall 2020)

CSE 60326 Computational Behavior Modeling, *University of Notre Dame* (Spring 2021)

CSE 40647/60647 Data Science, *University of Notre Dame* (Fall 2021)

CSE 60326 Computational Behavior Modeling, *University of Notre Dame* (Spring 2022)

Professional Activities

Governmental Service

NIH DABP-PSE-IRAP Panelist (2021)
NSF CISE Panelist (2020, 2022)

Departmental Service

Graduate admission committee at ND CSE (since 2017)

Ph.D. Thesis Committee

Dr. Maria Glenski, Notre Dame Comp. Sci. & Eng.
Dr. Yuan Gong, Notre Dame Comp. Sci. & Eng.
Dr. Chao Huang, Notre Dame Comp. Sci. & Eng.
Dr. Suhansanu Kumar, UIUC Computer Science
Dr. Zhiyu Liu, Notre Dame Electrical Engineering
Dr. Kenton Murray, Notre Dame Comp. Sci. & Eng.
Dr. Alireza Partovi, Notre Dame Electrical Engineering
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. Tianchen Wang, Notre Dame Comp. Sci. & Eng.
Dr. Xian Wu, 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.
Justus Hibshman, Notre Dame Comp. Sci. & Eng.
Ann Franchesca Laguna, Notre Dame Comp. Sci. & Eng.
Qi Li, Notre Dame Comp. Sci. & Eng.

Peixian Liang, Notre Dame Comp. Sci. & Eng.
Jinfeng Lin, Notre Dame Comp. Sci. & Eng.
Guoqiang Liu, Notre Dame Biology
Qing Lu, Notre Dame Comp. Sci. & Eng.

Organizing Committee

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

2019 Publication Chair, ACM International Conference on Knowledge Management (CIKM)
Publicity Chair, Int'l Conf. on Computational Data and Social Networks (CSoNet)

2018 Co-Chair, Workshop on Misinformation and Misbehavior Mining on the Web 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 / Area Chair

2022 AAAI Conference on Artificial Intelligence (AAAI)
ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD)
ACM International Conference on Knowledge Management (CIKM)

2021 ACM International Conference on Knowledge Management (CIKM)
Conference on Empirical Methods in Natural Language Processing (EMNLP)
International Joint Conference on Artificial Intelligence (IJCAI)

2020 ACM International Conference on Knowledge Management (CIKM)
International Conference on Artificial Intelligence in Medicine (AIME)

Program Committee

2017–2022
AAAI Conference on Artificial Intelligence (AAAI)
ACM International Conference on Knowledge Management (CIKM)

2018–2021
ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD)
The Web Conference (WebConf/WWW)
Conference on Empirical Methods in Natural Language Processing (EMNLP)
SIAM Conference on Data Mining (SDM)

2019–2021
International Conference on Web Search and Data Mining (WSDM)

2020–2021
Annual Meeting of the Association for Computational Linguistics (ACL)
Conference on Neural Information Processing Systems (NeurIPS)

2021
Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL-HLT)
International Conference on Learning Representations (ICLR)

Editorial Board

Big Data Networks (Frontiers in Big Data) (since January 2020):
- *Research topic: "Computational Behavioral Modeling for Big User Data."*
Data Mining and Knowledge Discovery (*DAMI*) (since February 2020)

Journal Reviewer

Information Sciences (*INS*)
Information Systems (*InfoSys*)
Information Processing and Management (*IPM*)
IEEE Intelligent Systems (*IS*)
Knowledge and Information Systems (*KAIS*)
Neurocomputing (*NEUCOM*)
PLOS ONE (*PlosOne*)
Scientific Reports (*SciReports*)
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 Neural Networks and Learning Systems (*TNNLS*)