Meng Jiang, Ph.D.

University of Notre Dame
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Work Experience

Assistant Professor   2017 – *present*
University of Notre Dame
Department of Computer Science and Engineering
Center for Network and Data Science (CNDS)

Postdoctoral Research Associate   2015 – 2017
University of Illinois at Urbana-Champaign
Department of Computer Science
Data and Information Systems Laboratory

Education

Ph.D.	Tsinghua University, Computer Science	2015
	Thesis: *Modeling Complex User Behaviors in Social Media*	
	Graduated with honors	
B.S.	Tsinghua University, Computer Science	2010
	Graduated with honors	

Honors and Awards

ACM WSDM Conference Outstanding PC	2020
ND Global Gateway Faculty Research Award	2019
Tutorial Honorarium, ACM CIKM	2016
Tutorial Honorarium, IEEE ICDM	2015
Best Paper Finalist, ACM SIGKDD	2014
Travel Award, ACM SIGKDD	2014
Travel Award, PAKDD	2014
National Graduate Research Fellowship of China	2014
Sohu Graduate Research Fellowship	2013

Scholar Pages

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

Citations	1850
h-index	18
i10-index	27

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

Sponsored Programs

Total Amount: \$1,386,151; Total Share: **\$615,671**

"CRII: III: Beyond Similarity Learning: Complementarity Learning for Contextual Behavior Modeling"
October 1, 2019 – September 30, 2021
Funding Vehicle: NSF IIS-1849816 (Highly Competitive)
Amount: **\$174,910**
Role: **Sole P.I.**

"SHF: Medium: Collaborative Research: Semantically-Enhanced Software Traceability for Supporting Human-Centric Tasks"
August 15, 2019 – August 14, 2023
Funding Vehicle: NSF CCF-1901059 (Competitive)
Amount: \$1,019,030 (Share: **\$336,280**)
Role: **Co-P.I.** with ND Profs. Huang and Metoyer (Comp. Sci. & Eng.)

"Digital Empires: Structured Biographical and Social Network Analysis of Early Chinese Empires"
May 1, 2019 – August 31, 2020
Funding Vehicle: Notre Dame RGG
Amount: \$43,811 (Share: **\$30,281**)
Role: **Co-P.I.** with ND Prof. Cai (History)

"Representation Learning for Modeling and Predicting User Engagement and Propensity for Conversion Through the Engagement Funnel"
January 21, 2019 – May 20, 2020
Funding Vehicle: Conde Nast
Amount: \$148,400 (Share: **\$74,200**)
Role: **Co-P.I.** with ND Prof. Chawla (Comp. Sci. & Eng.)

"III: Medium: Collaborative Research: StructNet: Constructing and Mining Structure-Rich Information Networks for Scientific Research"
July 1, 2017 – June 30, 2021
Funding Vehicle: NSF IIS-1705169
Amount: \$1,200,000
Role: Postdoctoral researcher supported by PI Jiawei Han (UIUC)

"III: Small: Multi-Dimensional Structuring, Summarizing and Mining of Social Media Data"
August 1, 2016 – July 31, 2020
Funding Vehicle: NSF IIS-1618481
Amount: \$500,000
Role: Postdoctoral researcher supported by PI Jiawei Han (UIUC)

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

PUBLICATIONS

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.

Refereed Conference Papers (9 ACM SIGKDD research track, etc.)

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, Anaheim, California United States, April 26-30, 2020. (Oral presentation)

C38 @Yu, W., *Yu, M., @Zhao, T., **Jiang, M.** "Identifying Referential Intention with Heterogeneous Contexts", in Proceedings of *The Web Conference* (TheWebConf), 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), 2020. (acceptance rate 19% = 217/1129, won the first place at 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), 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), 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), 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. (regular paper, 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%)

C30 Wang, T., Xu, X., Xiong, J., **Jiang, M.**, Shi, Y. "MSU-Net: Multiscale Statistical U-Net forReal-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%)

C29 @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. (research track with oral presentation, acceptance rate 9.2%=110/1200)

C28 @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. (research track with poster presentation, acceptance rate 14.2%=170/1200)

C27 @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, won the first place at 12th Annual Poster Contest at ND CSE)

C26 *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. (acceptance rate 44.8%=26/58)

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. (industry track, 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-September 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 track)

C20 @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)

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 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)

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-August 2017. (demo track)

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., 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. (selected as **best paper finalist**, acceptance rate 14.6%=151/1036)

C6 **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)

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. (oral long, 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 track, acceptance rate 48.7%=110/226)

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)

Refereed Journal Papers (6 IEEE Trans. on Knowledge & Data Eng. (TKDE), etc.)

J16 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.* To appear, accepted March 2020. (IF=4.418)

J15 @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.* To appear, accepted March 2020. (IF=2.428)

J14 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=2.592)

J13 Kuang, K., Cui, P., Li, B., **Jiang, M.**, Yang, S. "Treatment Effect Estimation via Differentiated Confounder Balancing and Regression" *Transactions on Knowledge Discovery from Data.* 14:1, 1-25, December 2019. (IF=2.200)

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=[new journal])

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=2.775)

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=2.775)

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=2.775)

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=2.247)

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=1.000)

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=2.775)

J4 **Jiang, M.**, Cui, P., Yang, S. "Suspicious Behavior Detection: Current Trends and Future Directions" *IEEE Intelligent Systems.* 31:1, 31-39, January-February 2016. (IF=2.596)

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=2.775)

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=2.775)

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=1.541)

Refereed Workshop Papers

W9 **Jiang, M.** "Cross-Disciplinary ML Research is like Happy Marriages: Five Strengths and Two Examples", in the *special writers' workshop of IMLS Machine Learning and Libraries*, 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), 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), 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), 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), 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), 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 ScoringTeam

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), 2016.

Refereed Tutorials

T7 Zhang, C., **Jiang, M.**, Zhang, X., Chawla, N.V. "Multi-modal Network Representation Learning: Methods and Applications" at the *SIAM International Conference on Data Mining* (SDM), May 2020.

T6 **Jiang, M.**, Kumar, S., Subrahmanian, V.S., Faloutsos, C. "Data-Driven Approaches towards Malicious Behavior Modeling" at 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" at 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" at 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" at the *International World Wide Web Conference* (WWW), April 2017.

T2 **Jiang, M.**, Cui, P., Han, J. "Data-Driven Behavioral Analytics: Observations, Representations and Models" at 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" at the *IEEE International Conference on Data Mining* (ICDM), November 2015.

Publications Under Review

Refereed Conference Papers

CR12 Liu, Y., Lin, J., Zeng, Q., **Jiang, M.**, Cleland-Huang, J., "Towards Semantically-Aware Traceability", under review at *IEEE International Requirements Engineering Conference* (RE), 2020.

CR11 @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", under review at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2020.

CR10 @Zhao, T., *Deng, C., *Yu, K., @Jiang, T., @Wang, D., **Jiang, M.**, "Error-bounded Graph Anomaly Loss for GNNs", under review at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2020.

CR9 Zhang, C., Yao, H., Yu, L., Huang, C., Song, D., **Jiang, M.**, Chen, H., Chawla, N.V., "Inductive Contextual Personalization", under review at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2020.

CR8 Shi, X., Shang, J., **Jiang, M.**, Liu, L., Hanratty, T., Han, J., "Contrast Subgraph Mining from Coherent Cores", under review at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2020.

CR7 Jiang, T., Zhang, N., **Jiang, M.**, Liu, M., Qin, B., Liu, T., "The Use of Internal Knowledge: Neural Biomedical Literature Search Liberated From External Resources", under review at *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (KDD), 2020.

CR6 Huang, C., Li, R., Zhang, C., **Jiang, M.**, Dai, P., Bo, L., Chawla, N.V., "Multi-Grained Learning of Temporal Hierarchy for Time Series Forecasting", under review at *International Joint Conference on Artificial Intelligence* (IJCAI), 2020.

CR5 @Jiang, T., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., **Jiang, M.** "Canonicalizing Open Knowledge Bases with Multi-layered Meta-graph Neural Network", under review at *International Joint Conference on Artificial Intelligence* (IJCAI), 2020.

CR4 @Wang, D., @Zhao, T., @Jiang, T., Chawla, N.V., **Jiang, M.** "EvoGNN: Modeling Co-evolution of Attributed and Structural Information in Dynamic Networks", under review at *International Joint Conference on Artificial Intelligence* (IJCAI), 2020.

CR3 @Yu, W., Wu, L., @Zeng, Q., Tao, S., Deng, Y., **Jiang, M.** "Crossing Variational Autoencoders for Answer Retrieval", under review at *Annual Meeting of the Association for Computational Linguistics* (ACL), 2020.

CR2 @Zeng, Q., @Yu, W., *Yu, M., *Peng, W., @Jiang, T., Weninger, T., **Jiang, M.** "Distant Supervision for Scientific Entity Recognition and Empirical Investigation on Various Options", under review at *Annual Meeting of the Association for Computational Linguistics* (ACL), 2020.

CR1 @Zeng, Q., @Jiang, T., *Yu, M., @Yu, W., *Peng, W., Weninger, T., **Jiang, M.** "Amending a Popular Dataset and Improving Scientific Entity Recognition with No-Schema Distant Supervision", under review at *Annual Meeting of the Association for Computational Linguistics* (ACL), 2020.

Refereed Journal Papers

JR4 @Wang, D., @Zeng, Q., Chawla, N.V., **Jiang, M.** "Modeling Complementarity in Behavior Data with Multi-Type Itemset Embedding" under review at *Transactions on Intelligent Systems and Technology.* (IF=3.190)

JR3 **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" under review at *Nature Palgrave Communications.* (Major revision)

JR2 Zhao, S., **Jiang, M.**, Qin, B., Liu, T., Zhai, C.X., Wang, F. "Structural and Textual Information Fusion for Symptom and Disease Representation Learning" under review at *IEEE Transactions on Knowledge and Data Engineering*. (Major revision, IF=2.775)

JR1 @Wang, X., **Jiang, M.** "Precise Temporal Slot Filling via Truth Finding with Data-Driven Commonsense" under review at *Knowledge and Information Systems*. (Conditionally accepted subject to minor revision, IF=2.247)

Refereed Workshop Papers

WR1 *Zhou, Y., @Zhao, T., **Jiang, M.** "A Probabilistic Model with Commonsense Constraints for Pattern-based Temporal Fact Extraction", under review at *the Third Workshop on Fact Extraction and Verification* (FEVER) collocated with *Annual Meeting of the Association for Computational Linguistics* (ACL), 2020.

INVITED TALKS

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

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

MASTER STUDENT GRADUATED

Xueying Wang, *Graduated May 2019*
Thesis: *Improving Information Extraction via Truth Finding with Data-Driven Commonsense*

Past Student Supervision

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

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

Wenhao Yu, *Visiting Undergraduate Student* (May–August 2018)

Yu Shu, *Visiting Undergraduate Student* (May–August 2018)

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

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

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

Yihong Ma, *Visiting Undergraduate Student* (May–August 2019)

Chuchen Deng, *Visiting Undergraduate Student* (May–August 2019)

Zhihan Zhang, *Visiting Undergraduate Student* (July–August 2019)

Xin Liu, *Visiting Undergraduate Student* (July–August 2019)

Mengxia Yu, *Visiting Undergraduate Student* (July–August 2019)

Wei Peng, *Visiting Undergraduate Student* (July–August 2019)

Kaifeng Yu, *Visiting Undergraduate Student* (July–August 2019)

Yang Zhou, *Visiting Undergraduate Student* (July–August 2019)

Yifan Ding, *Master Student* (September 2018–July 2019)

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

Current Student Supervision

Eric Zhang, *Trinity High School Student* (since September 2018)

Michael Florin, *Trinity High School Student* (since September 2019)

Xiangyu Dong, *Undergraduate Student* (since September 2019)

Chan Hee Song, *Undergraduate Student* (since September 2019)

Tianze Zheng, *Undergraduate Student* (since September 2019)

Bo Ni, *Undergraduate Student* (since September 2019)

Luke Marushack, *Undergraduate Student* (since January 2020)

Alvin Alaphat, *Undergraduate Student* (since January 2020)

Zaitang Li, *Visiting Undergraduate Student* (since September 2019)

Jiajun Huang, *Visiting Undergraduate Student* (since January 2020)

Daheng Wang, *Ph.D. Student* (since September 2017), co-ad. with Prof. Chawla

Qingkai Zeng, *Ph.D. Student* (since January 2018)

Tong Zhao, *Ph.D. Student* (since September 2018)

Wenhao Yu, *Ph.D. Student* (since July 2019)

Mengxia Yu, *Ph.D. Student* (since July 2020)

Jianing Li, *Master Student* (since September 2019)

Bhakti Sharma, *Master Student* (since January 2020)

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)

Professional Activities

Departmental Service

> Graduate admission committee at ND CSE (since 2017)

Ph.D. Thesis Committee

> **Dr. Maria Glenski**, Notre Dame Comp. Sci. & Eng.
> **Dr. Chao Huang**, Notre Dame Comp. Sci. & Eng.
> **Dr. Kenton Murray**, Notre Dame Comp. Sci. & Eng.
> **Dr. Shenglong Zhu**, Notre Dame Comp. Sci. & Eng.
> **Yuan Gong**, Notre Dame Comp. Sci. & Eng.
> **Guoqiang Liu**, Notre Dame Biology
> **Zhiyu Liu**, Notre Dame Electrical Engineering
> **Suhansanu Kumar**, UIUC Computer Science
> **Kaitlynn Meis**, Notre Dame Biology
> **Xian Wu**, Notre Dame Comp. Sci. & Eng.
> **Chuxu Zhang**, Notre Dame Comp. Sci. & Eng.

Organizing Committee

2020 Senior Program Committee, ACM International Conference on Knowledge Management (CIKM)

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)

Program Committee

2020 ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD)
International World Wide Web Conference (WWW)
International Conference on Web Search and Data Mining (WSDM)
Annual Meeting of the Association for Computational Linguistics (ACL)

2019 ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD)
International World Wide Web Conference (WWW)
AAAI Conference on Artificial Intelligence (AAAI)

International Joint Conference on Artificial Intelligence (IJCAI)
Conference on Empirical Methods in Natural Language Processing (EMNLP)
ACM International Conference on Knowledge Management (CIKM)
International Conference on Web Search and Data Mining (WSDM)
SIAM Conference on Data Mining (SDM)
Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
Int'l Conf. Series on Advances in Social Network Analysis and Mining (ASONAM)

2018 ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD)
International World Wide Web Conference (WWW)
AAAI Conference on Artificial Intelligence (AAAI)
Conference on Empirical Methods in Natural Language Processing (EMNLP)
ACM International Conference on Knowledge Management (CIKM)
International Conference on Web Search and Data Mining (WSDM)
SIAM Conference on Data Mining (SDM)
ACM International Conference on Multimedia (MM)
Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)
Workshop on Graph Techniques for Adversarial Activity Analytics (GTA3)
Workshop on Social Influence Analysis and Mining Actionable Insights from Social Networks (SocInf+MAISoN)

2017 AAAI Conference on Artificial Intelligence (AAAI)
ACM International Conference on Knowledge Management (CIKM)
ACM International Conference on Multimedia (MM)
Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)

Associate Editor

Big Data Networks (Frontiers in Big Data) (since January 2020) Data Mining and Knowledge Discovery (*DAMI*) (since February 2020)

Journal Reviewer

IEEE Access (*Access*)
Artificial Intelligence Journal (*AI Journal*)
Data Mining and Knowledge Discovery (*DAMI*)
Decision Sciences Journal (*DSJ*)
Frontiers of Computer Science (*FCS*)
International Journal of Information Technology and Decision Making (*IJITDM*)
Information Sciences (*INS*)
Information Systems (*InfoSys*)
Information Processing and Management (*IPM*)
IEEE Intelligent Systems (*IS*)
Journal of Computers (*JCP*)
Journal of Machine Learning Research (*JMLR*)
INFORMS Journal on Computing (*JOC*)
Knowledge and Information Systems (*KAIS*)
Neurocomputing (*NEUCOM*)
Plos One (*PlosOne*)
Pattern Recognition (*PR*)
Scientific Reports (*SciReports*)
IEEE Transactions on Big Data (*TBD*)
IEEE Transactions on Information Forensics and Security (*TIFS*)
KSII Transactions on Internet and Information Systems (*TIIS*)
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*)
ACM Trans. on Multimedia Comp. Comm. and App. (*TOMCCAP*)
IEEE Transactions on Neural Networks and Learning Systems (*TNNLS*)
World Wide Web Journal (*WWWJ*)