

# MENG JIANG, PH.D.

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## EXPERIENCE

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### Assistant Professor

2017 – *present*

University of Notre Dame  
Department of Computer Science and Engineering  
Interdisciplinary Center for Network Science and Applications

### Postdoctoral Research Associate

2015 – 2017

University of Illinois at Urbana-Champaign  
Department of Computer Science  
The Data and Information Systems Laboratory

## EDUCATION

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### Ph.D.

Tsinghua University, Computer Science 2015

Title: *Modeling Complex User Behaviors in Social Media*

Committee: Shiqiang Yang (chair), Xindong Wu, Philip S. Yu, Peng Cui

### B.S.

Tsinghua University, Computer Science 2010

## HONORS AND AWARDS

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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

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

Citations 1431

h-index 17

i10-index 19

DBLP: [https://dblp.org/pers/hd/j/Jiang\\_0001:Meng](https://dblp.org/pers/hd/j/Jiang_0001:Meng)

(@ indicate supervised graduate students. \* indicate supervised undergraduate students.)

## PUBLICATIONS

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### *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.
- I conceived the idea and wrote the paper.*

### *Refereed Journal Papers (6 TKDEs, etc.)*

- 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=[new journal])
- I made 3% contribution. Dr. Zhou conceived the idea, implemented the system, and completed the experiments. I joined the discussion and edited the paper.*
- 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])
- I made 40% contribution. I conceived the idea and design the study. Mr. Kuang implemented the system and completed the experiments. Mr. Kuang and I wrote the paper.*
- 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)
- I made 5% contribution. Mr. Shang conceived the idea in consultation with myself. Mr. Shang implemented the system, completed the experiments, and wrote the paper. I edited the paper.*
- 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)
- I made 25% contribution. Mr. Shang conceived the idea in consultation with myself. Mr. Shang implemented the system, completed the experiments, and wrote the paper. I edited the paper.*
- 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)
- Ms. Gui conceived the idea in consultation with myself. Ms. Gui, her colleague Dr. Liu, and I implemented the system and completed the experiments. Ms. Gui wrote the paper. I edited the paper.*

- 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)  
*I conceived the idea in consultation with Dr. Faloutsos. I designed the study, completed the experiments, and wrote the paper.*
- 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)  
*I conceived the idea in consultation with Dr. Faloutsos. I designed the study, completed the experiments, and wrote the paper.*
- 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)  
*I conceived the idea in consultation with Dr. Faloutsos. I designed the study, completed the experiments, and wrote the paper.*
- 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)  
*I conceived the idea in consultation with Dr. Cui. I designed the survey and wrote the paper. Dr. Cui edited the paper.*
- 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)  
*I conceived the idea in consultation with Dr. Cui. I designed the study, completed the experiments, and wrote the paper. Mr. Chen helped the experiments.*
- 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)  
*I conceived the idea in consultation with Dr. Cui. I designed the study, completed the experiments, and wrote the paper. Dr. Cui edited the paper.*
- 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)  
*Ms. Liu conceived the idea in consultation with myself. Ms. Liu, her colleague Dr. Zhu, and I implemented the system and completed the experiments.*

*Refereed Conference Papers (9 KDDs research track, etc.)*

- 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. (in press, research track with oral presentation, acceptance rate 9.2%=110/1200)

*I made 30% contribution and Mr. Wang made 60%. I conceived the idea. Mr. Wang designed the study, implemented the system, and did the experiments. I wrote the introduction and part of methodology sections. Mr. Wang wrote the rest of the paper.*

- 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. (in press, research track with poster presentation, acceptance rate 14.2%=170/1200)

*I made 30% contribution and Mr. Jiang made 60%. I conceived the idea. Mr. Jiang designed the study, implemented the system, and did the experiments. I wrote the introduction. Mr. Jiang wrote the rest of the paper.*

- 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)

*I made 75% contribution and Ms. Wang made 20%. I conceived the idea, designed the study, and implemented the system. Ms. Wang did the experiments. Ms. Wang and I wrote the paper.*

- 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)

*I made 30% contribution and Mr. Yu made 60%. I conceived the idea and designed the study. Mr. Yu (junior) implemented the system and did the experiments. Mr. Yu and I wrote the paper.*

- 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)

*I made 40% contribution and Mr. Zhao made 40%. I conceived the idea and designed the study. Mr. Zhao implemented the system. Mr. Malir (sophomore) did the experiments. Mr. Zhao and I wrote the paper.*

- 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)

*I made 3% contribution. Mr. Tao conceived the idea in consultation with myself. Mr. Tao implemented the system, did the experiments, and wrote the paper. I edited the paper.*

- 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)

*I made 3% contribution. Mr. Ding conceived the idea in consultation with myself. Mr. Ding implemented the system, completed the experiments, and wrote the paper. I edited the paper.*

- 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)  
*I made 20% contribution. Mr. Zhao conceived the idea in consultation with myself. Mr. Zhao implemented the system, completed the experiments, and wrote the paper. I edited the paper.*
- 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)  
*I made 20% contribution. I conceived the idea. Mr. Wang implemented the system, did the experiments, and wrote the paper. I edited the paper.*
- 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)  
*I made 70% contribution and Mr. Wang made 20%. I conceived the idea and designed the study. Mr. Wang implemented the system and did the experiments. I wrote the paper.*
- 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)  
*I made 40% contribution and Dr. Li made 40%. Dr. Li and I are co-first authors. I conceived the idea. Dr. Li implemented the system, did the experiments, and wrote the paper. I edited the paper.*
- 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)  
*I made 3% contribution. Mr. Zhang conceived the idea in consultation with myself. Mr. Zhang implemented the system, did the experiments, and wrote the paper. I edited the paper.*
- 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)  
*I made 30% contribution and Mr. Zhao made 60%. Mr. Zhao conceived the idea in consultation with myself. Mr. Zhao implemented the system and completed the experiments. I wrote the introduction section. Mr. Zhao wrote the rest of the paper.*
- C16 Jiang, M., Shang, J., Cassidy, T., Ren, X., Kaplan, L., Hanratty, T., Han, J. “MetaPAD: Meta Pattern 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)

*I conceived the idea, designed the study, did the experiments, and wrote the paper. Dr. Han edited the paper.*

- 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)

*Mr. Kuang conceived the idea in consultation with myself. Mr. Kuang implemented the system and completed the experiments. Mr. Kuang wrote the paper. I edited the paper.*

- 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)

*Mr. Ren conceived the idea. Mr. Shen implemented the system and completed the experiments. Mr. Ren wrote the paper. I edited the paper.*

- 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)

*Mr. Kuang conceived the idea in consultation with myself. Mr. Kuang implemented the system and completed the experiments. Mr. Kuang wrote the paper. I edited the paper.*

- 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)

*I conceived the idea. Mr. Kuang implemented the system and completed the experiments. Mr. Kuang and I wrote the paper.*

- 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)

*Ms. Gui conceived the idea in consultation with myself. Ms. Gui, her colleague Dr. Liu, and I implemented the system and completed the experiments. Ms. Gui wrote the paper. I edited the paper.*

- 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)

*I conceived the idea, designed the study, did the experiments, and wrote the paper.*

- 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)

*I conceived the idea in consultation with Dr. Cui. I designed the study, completed the experiments, and wrote the paper.*

- 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)

*I conceived the idea in consultation with Dr. Beutel. I designed the study, completed the experiments, and wrote the paper. Dr. Beutel edited the paper.*

- 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)

*I conceived the idea in consultation with Dr. Faloutsos. I designed the study, did the experiments, and wrote the paper. Drs. Beutel and Faloutsos edited the paper.*

- 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)

*I conceived the idea in consultation with Drs. Cui and Wang. I designed the study, completed the experiments, and wrote the paper.*

- 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)

*I conceived the idea, designed the study, did the experiments, and wrote the paper.*

- 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)

*I conceived the idea, designed the study, did the experiments, and wrote the paper.*

- 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)

*I conceived the idea in consultation with Dr. Wang. I designed the study, completed the experiments, and wrote the paper. Dr. Cui edited the paper.*

- 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)

*I conceived the idea in consultation with Dr. Cui. I designed the study, completed the experiments, and wrote the paper. Dr. Cui edited the paper.*

- 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)

*Ms. Liu conceived the idea in consultation with myself. Ms. Liu and I implemented the system and completed the experiments.*

#### *Refereed Workshop Papers*

- 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) at ACM Conference on Web Search and Data Mining, February 2018.

*I conceived the idea in consultation with Mr. Wang. Mr. Wang designed the study, completed the experiments, and wrote the paper. I edited the paper.*

- 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 (WSDM) Notebook Papers, February 2017.

*I joined the discussion and edited the paper.*

- W1 Jiang, M. “Catching Social Media Advertisers with Strategy Analysis” in the 1st International Workshop on Computational Methods for CyberSafety at ACM International Conference on Information and Knowledge Management, 2016.

#### *Refereed Tutorials*

- 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

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#### *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 @Wang, X., Jiang, M. “Precise Temporal Slot Filling via Truth Finding with Data-Driven Commonsense” under review at Knowledge and Information Systems. (IF=2.247)
- 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. (IF=2.775)
- JR1 Kuang, K., Cui, P., Li, B., Jiang, M., Yang, S. “Treatment Effect Estimation via Differentiated Confounder Balancing and Regression” under review at Transactions on Knowledge Discovery from Data. (minor revision, IF=1.000)

*Refereed Conference Papers*

- CR9 \*Yu, W., \*Shu, Y., @Zeng, Q., Jiang, M. “Experimental Evidence Extraction in Data Science with Hybrid Table Features and Ensemble Learning”, under review at International Conference on Data Mining (ICDM), 2019.
- CR8 @Ding, Y., @Wang, D., Jiang, M. “Preserving Composition and Crystal Structures of Chemical Compounds in Atomic Embedding”, under review at International Conference on Data Mining (ICDM), 2019.
- CR7 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”, under review at International Conference on Data Mining (ICDM), 2019.
- CR6 @Wang, D., @Zhao, T., @Jiang, T., Chawla, N.V., Jiang, M. “Evolutionary Graph Neural Networks”, under review at Annual Conference on Neural Information Processing Systems (NeurIPS), 2019.
- CR5 Yao, H., Zhang, C., Wei, Y., Jiang, M., Wang, S., Chawla, N.V., Li, Z. “Graph Few-shot Learning via Knowledge Transfer”, under review at Annual Conference on Neural Information Processing Systems (NeurIPS), 2019.
- CR4 @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 Conference on Empirical Methods in Natural Language Processing (EMNLP), 2019.
- CR3 @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”, under review at Conference on Empirical Methods in Natural Language Processing (EMNLP), 2019.
- CR2 Zhang, C., Yao, H., Jiang, M., Li, Z., Chawla, N.V. “Few-Shot Knowledge Base Completion”, under review at Conference on Empirical Methods in Natural Language Processing (EMNLP), 2019.

CR1 Wang, T., Xu, X., Xiong, J., Jiang, M., Shi, Y. “MSU-Net: Multiscale Statistical U-Net for Real-time 3D Cardiac MRI Video Segmentation”, under review at International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2019.

*Refereed Workshop Papers*

WR1 @Jiang, T., @Zhao, T., Qin, B., Liu, T., Chawla, N.V., Jiang, M. “Constructing Information-Lossless Biological Knowledge Graphs from Conditional Statements”, under review in the 18th International Workshop on Data Mining in Bioinformatics (BioKDD) at the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 2019. (abstract track)

SPONSORED PROGRAM

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“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

Role: Co-P.I. with ND Prof. Cai (History)

INVITED TALKS

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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

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**Xueying Wang**, *Graduated May 2019*

## CURRENT STUDENT SUPERVISION

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**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)

**Tianwen Jiang**, *Visiting Ph.D. Student* (since September 2018), one-year program

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

**Yifan Ding**, *Master Student* (since September 2018)

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

**Tina Wu**, *Undergraduate Student* (since September 2018)

## PROFESSIONAL ACTIVITIES

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### Organizing Committee

*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

*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)

**Journal Reviewer**

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Journal of Machine Learning Research (*JMLR*)  
INFORMS Journal on Computing (*JOC*)  
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ACM Transactions on Knowledge Discovery from Data (*TKDD*)  
IEEE Transactions on Knowledge and Data Engineering (*TKDE*)  
ACM Trans. on Multimedia Comp. Comm. and App. (*TOMCCAP*)  
IEEE Transactions on Neural Networks and Learning Systems (*TNNLS*)  
World Wide Web Journal (*WWWJ*)