

# Meng Jiang

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CONTACT INFORMATION	326C Cushing Hall Department of Computer Science and Engineering, College of Engineering University of Notre Dame Notre Dame, IN 46556, USA Phone: (+1) (574) 631-7454 E-mail: mjiang2@nd.edu <a href="http://www.meng-jiang.com">http://www.meng-jiang.com</a> Google Scholar: #citation = 745 (504 as the first author), h-index = 11 • <a href="https://scholar.google.com/citations?user=LZIPfCkAAAAJ">https://scholar.google.com/citations?user=LZIPfCkAAAAJ</a> <a href="#">I am recruiting Ph.D. students and visiting scholars. Send me an e-mail!</a>
RESEARCH INTERESTS	Data-driven approaches towards online behavior modeling • Social media analysis • Spatiotemporal data mining • Information extraction • Anomaly detection Applications on modeling online user behaviors • Future behavior prediction • Fraud and spam detection • Social recommender systems • Event summarization
WORK EXPERIENCE	University of Notre Dame, IN, US since August 2017 • Tenure-track assistant professor, Department of Computer Science and Engineering, College of Engineering University of Illinois at Urbana-Champaign, IL, US August 2015 – August 2017 • Postdoctoral Research Associate in Data Mining Group, Computer Science • Advisor: Abel Bliss Professor Jiawei Han University of Maryland, College Park, MD, US June 2016 – July 2016 • Visiting Researcher in Institute for Advanced Computer Studies • Advisor: Professor VS Subrahmanian
EDUCATION EXPERIENCE	Tsinghua University, Beijing, China August 2010 – July 2015 • Ph.D. of Engineering in Computer Science with <i>Dissertation Award</i> • Advisor: Professor Shiqiang Yang • Thesis: Modeling complex behaviors in social media Carnegie Mellon University, Pittsburgh, PA, US August 2012 – May 2013 • Visiting Ph.D. Student in Database Group, Computer Science • Advisor: Professor Christos Faloutsos Tsinghua University, Beijing, China August 2006 – July 2010 • Bachelor of Engineering in Computer Science with <i>Excellent Thesis Award</i> • Thesis: Reranking news feed in social recommender systems
REFEREED JOURNAL PUBLICATIONS	[J9] Kun Kuang, <b>Meng Jiang</b> , Peng Cui, Jiashen Sun and Shiqiang Yang. “Effective Promotional Strategies Selection in Social Media: A Data-Driven Approach”, in IEEE Transactions on Big Data (TBD), 2017.  [J8] Huan Gui, Jialu Liu, Fangbo Tao, <b>Meng Jiang</b> , Brandon Norrick, Lance Kaplan and Jiawei Han. “Embedding Learning with Events in Heterogeneous Information Networks”, in IEEE Transactions on Knowledge and Data Engineering (TKDE), 2017. (Impact Factor = 2.476)  [J7] <b>Meng Jiang</b> , Alex Beutel, Peng Cui, Bryan Hooi, Shiqiang Yang and Christos Faloutsos. “Spotting Suspicious Behaviors in Multimodal Data: A General Metric and Algorithms”, in IEEE Transactions on Knowledge and Data Engineering (TKDE), 2016. (Impact Factor = 2.476)  [J6] <b>Meng Jiang</b> , Peng Cui and Christos Faloutsos. “Suspicious Behavior Detection:

Current Trends and Future Directions”, Special Issue on Online Behavioral Analysis and Modeling, in **IEEE Intelligent Systems**, 2016. (Survey, Impact Factor = 3.532)

[J5] **Meng Jiang**, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. “Catching Synchronized Behaviors in Large Networks: A Graph Mining Approach”, Special Issue on the Best of SIGKDD 2014, in ACM Transactions on Knowledge Discovery from Data (**TKDD**), 2016. (**3 among 146 accepted SIGKDD 2014 papers and 1,036 submissions**, Impact Factor = 1.000)

[J4] **Meng Jiang**, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. “Inferring Lockstep Behavior from Connectivity Pattern in Large Graphs”, in Knowledge and Information Systems (**KAIS**), 2015. (Impact Factor = 1.702)

[J3] **Meng Jiang**, Peng Cui, Xumin Chen, Fei Wang, Wenwu Zhu and Shiqiang Yang. “Social Recommendation with Cross-Domain Transferable Knowledge”, in IEEE Transactions on Knowledge and Data Engineering (**TKDE**), 2015. (Impact Factor = 2.476)

[J2] **Meng Jiang**, Peng Cui, Fei Wang, Wenwu Zhu and Shiqiang Yang. “Scalable Recommendation with Social Contextual Information”, in IEEE Transactions on Knowledge and Data Engineering (**TKDE**), 2014. (Impact Factor = 2.476)

[J1] Lu Liu, Feida Zhu, **Meng Jiang**, Jiawei Han, Lifeng Sun and Shiqiang Yang. “Mining Diversity on Social Media Networks”, in Multimedia Tools and Applications (**MTA**), 2012. (Impact Factor = 1.331)

REFEREED  
CONFERENCE  
PUBLICATIONS

[C16] **Meng Jiang**, Jingbo Shang, Taylor Cassidy, Xiang Ren, Lance Kaplan, Timothy Hanratty and Jiawei Han. “MetaPAD: Meta Patten Discovery from Massive Text Corpora”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2017.

[C15] Kun Kuang, Peng Cui, Bo Li, **Meng Jiang** and Shiqiang Yang. “Estimating Treatment Effect in the Wild via Differentiated Confounder Balancing”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2017. (Oral)

[C14] Sendong Zhao, **Meng Jiang**, Quan Yuan, Bing Qin, Ting Liu and ChengXiang Zhai. “ContextCare: Incorporating Contextual Information Networks to Representation Learning in Medical Forum Data”, in International Joint Conference on Artificial Intelligence (**IJCAI**), 2017.

[C13] Kun Kuang, Peng Cui, Bo Li, **Meng Jiang**, Shiqiang Yang and Fei Wang. “Treatment Effect Estimation with Data-Driven Variable Decomposition”, in AAAI Conference on Artificial Intelligence (**AAAI**), 2017.

[C12] Kun Kuang, **Meng Jiang**, Peng Cui, Shiqiang Yang. “Steering Social Media Promotions with Effective Strategies”, in IEEE International Conference on Data Mining (**ICDM**), 2016. (Short)

[C11] Huan Gui, Jialu Liu, Fangbo Tao, **Meng Jiang**, Brandon Norick, Jiawei Han. “Large-Scale Embedding Learning in Heterogeneous Event Data”, in IEEE International Conference on Data Mining (**ICDM**), 2016. (Short)

[C10] **Meng Jiang**, Christos Faloutsos and Jiawei Han. “CatchTartan: Representing and Summarizing Dynamic Multicontextual Behaviors”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2016. (Oral)

	<p>[C9] <b>Meng Jiang</b>, Peng Cui, Nicholas Jing Yuan, Xing Xie and Shiqiang Yang. “Little is Much: Bridging Cross-Platform Behaviors through Overlapped Crowds”, in AAAI Conference on Artificial Intelligence (AAAI), 2016.</p> <p>[C8] <b>Meng Jiang</b>, Alex Beutel, Peng Cui, Bryan Hooi, Shiqiang Yang and Christos Faloutsos. “A General Suspiciousness Metric for Dense Blocks in Multimodal Data”, in IEEE International Conference on Data Mining (ICDM), 2015. (Short)</p> <p>[C7] <b>Meng Jiang</b>, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. “CatchSync: Catching Synchronized Behavior in Large Directed Graphs”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2014. (Best Paper Finalist)</p> <p>[C6] <b>Meng Jiang</b>, Peng Cui, Fei Wang, Xinran Xu, Wenwu Zhu and Shiqiang Yang. “FEMA: Flexible Evolutionary Multi-faceted Analysis for Dynamic Behavioral Pattern Discovery”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2014.</p> <p>[C5] <b>Meng Jiang</b>, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. “Inferring Strange Behavior from Connectivity Pattern in Social Networks”, in Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2014. (Oral)</p> <p>[C4] <b>Meng Jiang</b>, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. “Detecting Suspicious Following Behavior in Multimillion-Node Social Networks”, in International Conference on World Wide Web Companion (WWW), 2014. (Poster)</p> <p>[C3] <b>Meng Jiang</b>, Peng Cui, Fei Wang, Qiang Yang, Wenwu Zhu and Shiqiang Yang. “Social Recommendation across Multiple Relational Domains”, in ACM International Conference on Information and Knowledge Management (CIKM), 2012.</p> <p>[C2] <b>Meng Jiang</b>, Peng Cui, Rui Liu, Qiang Yang, Fei Wang, Wenwu Zhu and Shiqiang Yang. “Social Contextual Recommendation”, in ACM International Conference on Information and Knowledge Management (CIKM), 2012.</p> <p>[C1] Lu Liu, Jie Tang, Jiawei Han, <b>Meng Jiang</b> and Shiqiang Yang. “Mining Topic-Level Influence in Heterogeneous Networks”, in ACM International Conference on Information and Knowledge Management (CIKM), 2010.</p>
REFEREED WORKSHOP PUBLICATION	<p>[W1] <b>Meng Jiang</b>. “Catching Social Media Advertisers with Strategy Analysis”, in the 1st International Workshop on Computational Methods for <b>CyberSafety</b>, ACM International Conference on Information and Knowledge Management (CIKM), 2016.</p>
REFEREED SOFTWARE DEMONSTRATION	<p>[D1] Xiang Ren, Jiaming Shen, Meng Qu, Xuan Wang, Zeqiu Wu, Qi Zhu, <b>Meng Jiang</b>, Fangbo Tao, Saurabh Sinha, David Liem, Peipei Ping, Richard Weinshilboum and Jiawei Han. “LifeNet: A Structured Network-Based Knowledge Exploration and Analytics System for Life Sciences”, in the Annual Meeting of the Association for Computational Linguistics (ACL), 2017.</p>
BOOK CHAPTERS	<p>[B2] <b>Meng Jiang</b>. “Behavior Modeling in Social Networks”, in “Encyclopedia of Social Network Analysis and Mining”, 2nd edition, Springer, 2018. (to appear)</p> <p>[B1] <b>Meng Jiang</b> and Peng Cui. “Mining User Behaviors in Large Social Networks”, in “Big Data in Complex and Social Networks”, Chapman and Hall/CRC Big Data Series, 2016.</p>
TUTORIALS	<p>[T6] <b>Meng Jiang</b>, Srijan Kumar, VS Subrahmanian, and Christos Faloutsos. “Data-Driven Approaches towards Malicious Behavior Modeling”, in ACM SIGKDD In-</p>

ternational Conference on Knowledge Discovery and Data Mining (**KDD**), 2017.

[T5] Jingbo Shang, Xiang Ren, **Meng Jiang**, and Jiawei Han. “Mining Entity-Relation-Attribute Structures from Massive Text Data”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2017.

[T4] Xiang Ren, **Meng Jiang**, Jingbo Shang, and Jiawei Han. “Building Structured Databases of Factual Knowledge from Massive Text Data”, in ACM SIGMOD International Conference on Management of Data (**SIGMOD**), 2017.

[T3] Xiang Ren, **Meng Jiang**, Jingbo Shang, and Jiawei Han. “Constructing Structured Information Networks from Massive Text Corpora”, in International World Wide Web Conference (**WWW**), 2017.

[T2] **Meng Jiang**, Peng Cui and Jiawei Han. “Data-Driven Behavioral Analytics: Observations, Representations and Models”, in ACM International Conference on Information and Knowledge Management (**CIKM**), 2016. (Taught 2 of 3 hours, 70+ audience and \$360 honorarium)

[T1] **Meng Jiang** and Peng Cui. “Behavior Modeling in Social Networks: From Micro to Macro”, in IEEE International Conference on Data Mining (**ICDM**), 2015. (Taught all 3 hours, 50+ audience and \$700 honorarium)

#### GRANT EXPERIENCE

[G4] “NSF III: Medium: Collaborative Research: StructNet: Constructing and Mining Structure-Rich Information Networks for Scientific Research”, National Science Foundation Award Number: NSF IIS 17-04001 (07-01-2017 – 06-30-2021, \$296,451). Heng Ji, PI. **Meng Jiang** contributed significantly to the technical content based on his later-published paper [C16].

[G3] “NSF III: Small: Multi-Dimensional Structuring, Summarizing and Mining of Social Media Data”, National Science Foundation Award Number: NSF IIS 16-18481 (08-01-2016 – 07-31-2019, \$500,000). Jiawei Han, PI. **Meng Jiang** contributed significantly to the technical content based on his later-published paper [C10].

[G2] “IPAN I2: Distributed, User-Oriented Multi-Scale Network Summarization and Online Analytical Processing”, Network Science Collaborative Technology Alliance (NS CTA) at the US Army Research Laboratory (ARL). Visited Aberdeen Proving Ground, MD. Collaborated with Dr. Timothy P. Hanratty.

[G1] “IPAN I1: Constructing Unified, Structured Knowledge Networks by Integrating Text, Social Media and Multi-Genre Networks”, Network Science Collaborative Technology Alliance (NS CTA) at the US Army Research Laboratory (ARL). Visited Adelphi Laboratory Center, MD. Collaborated with Dr. Lance M. Kaplan.

#### INVITED TALKS

[K11] “Data-driven Behavioral Analytics with Networks”, at Binghamton University, March 13, 2017. (Host by Professor Weiyi Meng)

[K10] “Data-driven Behavioral Analytics with Networks”, at Georgia State University, March 9, 2017. (Host by Professor Xiaojun Cao)

[K9] “Data-driven Behavioral Analytics with Networks”, at University of Oregon, March 2, 2017. (Host by Professor Dejing Dou)

[K8] “Data-driven Behavioral Analytics with Networks”, at Rensselaer Polytechnic Institute, February 21, 2017. (Host by Professor Boleslaw K. Szymanski)

[K7] “Data-driven Behavioral Analytics with Networks”, at University of Maryland,

Baltimore County, February 2, 2017. (Host by Professor George Karabatis)

[K6] “Data-driven Behavioral Analytics with Networks”, at University of Notre Dame, January 26, 2017. (Host by Professor Nitesh Chawla)

[K5] “Data-driven Behavioral Analytics with Networks”, at Temple University, January 19, 2017. (Host by Professor Zoran Obradovic)

[K4] “Data-driven Behavioral Analytics with Networks”, at The Ohio State University, October 25, 2016. (Invited by Professor Huan Sun)

[K3] “Modeling Complex Behavior in Social Media”, at University of Massachusetts Boston, November 23, 2015. (Invited by Professor Wei Ding)

[K2] “Prediction and Anomaly Detection in Large-Scale Social Networks”, at Tencent Big Data Seminar, July 25, 2014. (Invited by Tencent Inc.)

[K1] “User Behavior Analysis in Social Networks: Pattern Discovery, Prediction and Anomaly Detection”, at Microsoft Research Asia, July 14, 2014. (Invited by Senior Research Manager Dr. Xing Xie)

#### TEACHING EXPERIENCE

<b>Notre Dame CSE 40647/60647: Data Science</b>	<b>Fall 2017</b>
• Instructor. From August 22 to December 7, 2017.	
<b>UIUC CS412: An Introduction to Data Warehousing &amp; Data Mining</b>	<b>Summer 2017</b>
• Instructor. From May 30 to August 3, 2017.	
<b>UIUC CS512: Data Mining: Principles and Algorithms</b>	<b>Spring 2017</b>
• Guest lecture on behavioral analytics. Invited by Professor Jiawei Han.	
<b>UIUC CS412: An Introduction to Data Warehousing &amp; Data Mining</b>	<b>Fall 2016</b>
• Taught the Chapter of Data Warehousing, OLAP, and Data Cube.	
• Supervised three teams in WSDM CUP 2017 “triple scoring” competition.	
<b>UIUC CS598: Advanced Topics in Information Retrieval</b>	<b>Fall 2016</b>
• Guest lecture on attribute discovery. Invited by Professor ChengXiang Zhai.	
<b>UIUC CS512: Data Mining: Principles and Algorithms</b>	<b>Spring 2016</b>
• Supervised three teams in the “relationship prediction” course project.	
<b>THU CS-SMT: Streaming Media Technology</b>	<b>Fall 2013</b>
• Teaching assistant for Professor Lifeng Sun.	
<b>THU CS-MFA: Multimedia Fundamentals and Applications</b>	<b>Spring 2013</b>
• Teaching assistant for Professor Lifeng Sun.	

#### HONORS AND AWARDS

The 3 <sup>rd</sup> place in WSDM CUP Competition	2017
KDD 2016 Rising Stars, Microsoft Academic Search	2016
Tutorial \$360 Honorarium, ACM CIKM	2016
Tutorial \$700 Honorarium, IEEE ICDM	2015
Dissertation Award, Tsinghua University	2015
Excellent PhD Graduate, Beijing City	2015
SIGKDD Best Paper Finalist	2014
National Scholarship, China	2014
Award of Excellence in MSRA Internship Program	2014
KDD Student Travel Award	2014
PAKDD Student Travel Grant Award	2014
Sohu Research Fellowship	2013

#### PROFESSIONAL SERVICES

Technical Program Committee Member
• International World Wide Web Conference (WWW), 2018

- ACM Int'l Conf. on Web Search and Data Mining (**WSDM**), 2018
- ACM Int'l Conf. on Information & Knowledge Management (**CIKM**), 2017
- ACM Int'l Conf. on Multimedia (**MM**), 2017
- AAAI Conf. on Artificial Intelligence (**AAAI**), 2017
- Pacific-Asia Conf. on Knowledge Discovery & Data Mining (**PAKDD**), 2017
- IEEE International Conference on Big Knowledge (**ICBK**), 2017
- IEEE Int'l Conf. on Data Science & Advanced Analytics (**DSAA**), 2015

#### Special Session Chair

- Special session on Big Behavioral Data Analytics (**BBDA**) in IEEE Int'l Conf. on Data Science & Advanced Analytics (**DSAA**), 2016

#### Journal Reviewer

- Data Mining and Knowledge Discovery (**DMKD, DAMI**)
- Frontiers of Computer Science (**FCS**)
- International Journal of Information Technology & Decision Making (**IJITDM**)
- Information Sciences (**INS**)
- Information Systems (**InfoSys**)
- 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**)
- Pattern Recognition (**PR**)
- Trans. on Big Data (**TBD**)
- Trans. on Information Forensics and Security (**TIFS**)
- Trans. on Internet and Information Systems (**TIIS**)
- Trans. on Intelligent Systems and Technology (**TIST**)
- Trans. on Knowledge Discovery from Data (**TKDD**)
- Trans. on Knowledge and Data Engineering (**TKDE**)
- Trans. on Multimedia Computing Communications and Applications (**TOMCCAP**)
- World Wide Web Journal (**WWWJ**)

#### Conference Reviewer

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|-------------|--------------|-----------------|
| • NIPS 2016 | • KDD 2015   | • ICDM 2014     |
| • PKDD 2016 | • IJCAI 2015 | • CIKM 2014     |
| • EDBT 2016 | • AAAI 2015  | • KDD 2014      |
| • AAAI 2016 | • WSDM 2015  | • Globecom 2014 |

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