

Meng Jiang

| | | |
|-------------------------------------|--|--|
| CONTACT INFORMATION | Office 2130, Siebel Center for Computer Science University of Illinois at Urbana-Champaign 201 N Goodwin Ave, Urbana, IL 61801, USA Google Scholar: #citation = 535 (338 as the first author), h-index = 9 • https://scholar.google.com/citations?user=LZIPfCkAAAAJ | Mobile: (+1) (217) 418 6072 E-mail: mjiang89@gmail.com http://www.meng-jiang.com |
| RESEARCH INTERESTS | Data mining, behavior modeling, social network analysis, text mining My research focuses on <i>Data-driven Behavioral Analytics</i> . • Research problems: Modeling behaviors of <i>unstructured</i> content, <i>social</i> context, <i>spatiotemporal</i> context and user intentions (<i>suspiciousness</i>); • Applications: prediction, recommendation, (event) summarization, fraud/spam detection. | |
| JOB EXPERIENCE | University of Illinois at Urbana-Champaign, IL, US • Postdoctoral Research Associate in Data Mining Group, Computer Science • Advisor: Professor Jiawei Han University of Maryland, College Park, MD, US • Visiting Researcher in Institute for Advanced Computer Studies • Advisor: Professor V.S. Subrahmanian | August 2015 – Present June 2016 – July 2016 |
| EDUCATION EXPERIENCE | Tsinghua University, Beijing, China • Ph.D. of Engineering with <i>Dissertation Award</i> in Computer Science • Advisor: Professor Shiqiang Yang • Thesis: Modeling complex behaviors in social media Carnegie Mellon University, Pittsburgh, PA, US • Visiting Ph.D. Student in Database Group, Computer Science • Advisor: Professor Christos Faloutsos Tsinghua University, Beijing, China • Bachelor of Engineering with <i>Excellent Thesis Award</i> in Computer Science • Thesis: Reranking news feed in social recommender systems | August 2010 – July 2015 August 2012 – May 2013 August 2006 – July 2010 |
| REFEREED JOURNAL PUBLICATIONS | <p>[J7] Meng Jiang, 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.</p> <p>[J6] Meng Jiang, 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.</p> <p>[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.</p> <p>[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.</p> <p>[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. (#citation = 9)</p> | |

[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. (#citation = **36**)

[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.

[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. (Acceptance rate = 25%)

[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, acceptance rate = 20%)

[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, acceptance rate = 20%)

[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 presentation, acceptance rate = 9%)

[C9] **Meng Jiang**, 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. (Acceptance rate = 25%)

[C8] **Meng Jiang**, 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, acceptance rate = 18%, #citation = **15**)

[C7] **Meng Jiang**, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. “Catch-Sync: Catching Synchronized Behavior in Large Directed Graphs”, in ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD**), 2014. (Acceptance rate = 15%, #citation = **39**, selected as one of the **best paper finalists**)

[C6] **Meng Jiang**, 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. (Acceptance rate = 15%, #citation = **14**)

[C5] **Meng Jiang**, 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 presentation, acceptance rate = 11%, #citation = **27**)

[C4] **Meng Jiang**, 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, #citation = **17**)

[C3] **Meng Jiang**, 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. (Acceptance rate = 14%, #citation = **47**, the 9th most cited in 146 accepted CIKM’12 papers)

| | |
|--------------------------|---|
| | <p>[C2] Meng Jiang, 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. (Acceptance rate = 14%, #citation = 121, the 3rd most cited in 146 accepted CIKM’12 papers)</p> <p>[C1] Lu Liu, Jie Tang, Jiawei Han, Meng Jiang and Shiqiang Yang. “Mining Topic-Level Influence in Heterogeneous Networks”, in ACM International Conference on Information and Knowledge Management (CIKM), 2010. (#citation = 191)</p> |
| BOOK CHAPTERS | <p>[B1] Meng Jiang 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> <p>[B2] Meng Jiang. “Behavior Modeling in Social Networks”, in “Encyclopedia of Social Network Analysis and Mining”, 2nd edition, Springer, 2016.</p> |
| TUTORIALS | <p>[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)</p> <p>[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)</p> |
| WORKSHOP PAPER | <p>[W1] Meng Jiang. “Catching Social Media Advertisers with Strategy Analysis”, in the 1st International Workshop on Computational Methods for CyberSafety, ACM International Conference on Information and Knowledge Management (CIKM), 2016.</p> |
| GRANT PROPOSAL WRITING | <p>I participated in multiple proposal writing. Most are under evaluation. One got funded: [G1] “NSF IIS: 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.</p> |
| INVITED TALKS | <p>[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)</p> <p>[K2] “Prediction and Anomaly Detection in Large-Scale Social Networks”, at Tencent Big Data Seminar, July 25, 2014. (Invited by Tencent Inc.)</p> <p>[K3] “Modeling Complex Behavior in Social Media”, at University of Massachusetts Boston, November 23, 2015. (Invited by Professor Wei Ding)</p> <p>[K4] “Data-driven Behavioral Analytics with Networks”, at Ohio State University, October 25, 2016. (Invited by Professor Huan Sun)</p> |
| MAJOR PROJECT EXPERIENCE | <p>NSF IIS 16-18481: Multi-Dimensional Structuring, Summarizing and Mining of Social Media Data August 2016 – Present • Major supported member. Contributed significantly to the proposal writing.</p> <p>NS CTA I4: Distributed, User-Oriented Multi-Scale Network Summarization and Online Analytical Processing June 2016 – July 2016 • Visited U.S. Army Research Lab at Aberdeen Proving Ground. Collaborated with Dr. Timothy P. Hanratty, Dr. John Richardson and Heather Roy.</p> <p>NS CTA II: Constructing Unified, Structured Knowledge Networks by Integrating Text, Social Media and Multi-Genre Networks June 2016 – July 2016</p> |

| | | |
|---------------------|--|-------------------------|
| | <ul style="list-style-type: none"> • Visited U.S. Army Research Lab at Adelphi Laboratory Center. Collaborated with Dr. Lance M. Kaplan and Dr. Taylor Cassidy. | |
| | MSRA Intern: Cross-Platform Behavior Modeling | June 2014 – August 2014 |
| | <ul style="list-style-type: none"> • Developed a cross-platform transfer learning model. Published in AAAI 2016. • Mentor: Dr. Xing Xie. Won <i>Award of Excellence</i> in MSRA Internship Program. | |
| | Tsinghua-Tencent Lab: Mining Rich Social Media Data | July 2011 – July 2015 |
| | <ul style="list-style-type: none"> • Deployed social recommender systems in Weibo News Feed. Improved the conversion rate (i.e., number of retweets per request) from 5.78% to 8.27% (relatively 43%). • Developed a scalable algorithm to detect fake accounts. Won KDD'14 <i>Best Paper Finalist</i>. | |
| TEACHING EXPERIENCE | UIUC CS412: An Introduction to Data Warehousing and Data Mining | Fall 2016 |
| | <ul style="list-style-type: none"> • Taught for undergraduates occasionally (e.g., Data Warehousing and OLAP chapter, Data Cube chapter) when the Instructor Professor Jiawei Han was out of town. • Supervised three teams (24 students) in the “Triple Scoring” project. Provided three promising solutions and a complementary dataset. | |
| | UIUC CS598: Advanced Topics in Information Retrieval | Fall 2016 |
| | <ul style="list-style-type: none"> • Guest lecture on automatic attribute discovery. Invited by Professor ChengXiang Zhai. | |
| | UIUC CS512: Data Mining: Principles and Algorithms | Spring 2016 |
| | <ul style="list-style-type: none"> • Supervised three teams (9 graduates) in the “Relationship Prediction” project. | |
| | THU CS-SMT: Streaming Media Technology | Fall 2013 |
| | <ul style="list-style-type: none"> • Teaching assistant for over 50 graduate students. | |
| | THU CS-MFA: Multimedia Fundamentals and Applications | Spring 2013 |
| | <ul style="list-style-type: none"> • Teaching assistant for over 160 undergraduate students. | |
| MENTORED STUDENTS | Kun Kuang: Promotional strategy analysis in social media | 2014 – 2016 |
| | <ul style="list-style-type: none"> • Ph.D. student at Tsinghua. • <i>Supervised in ICDM 2016 and AAAI 2017 papers.</i> | |
| | Shi Zhi: Reliable attribute discovery from massive text corpora | Fall 2016 |
| | <ul style="list-style-type: none"> • Ph.D. student at UIUC. | |
| | Suhansanu Kumar: Generating heterogeneous graphs with meta-path properties | 2016 |
| | <ul style="list-style-type: none"> • Ph.D. student at UIUC. | |
| | Vipul Venkataraman and Pramod Srinivasan: Network embedding | 2015 – 2016 |
| | <ul style="list-style-type: none"> • Master students at UIUC. | |
| | Xumin Chen: Social recommendation across multiple domains | 2015 |
| | <ul style="list-style-type: none"> • Undergraduate at Tsinghua (now Ph.D. student at Tsinghua). • <i>Supervised in TKDE 2015 paper.</i> | |
| | Xinran Xu: Behavior modeling with spatiotemporal data | 2013 – 2014 |
| | <ul style="list-style-type: none"> • Undergraduate at Tsinghua (now Master student at Tsinghua). • <i>Supervised in KDD 2014 paper.</i> | |
| | Rui Liu: Social recommendation with contextual information | 2011 – 2012 |
| | <ul style="list-style-type: none"> • Undergraduate at Tsinghua (Master student at University of Washington, now Ph.D. student at Dartmouth College). • <i>Supervised in CIKM 2012 and TKDE 2014 papers.</i> | |
| HONORS AND AWARDS | KDD 2016 Rising Stars, Microsoft Academic Search, 2016 | |

Tutorial \$700 Honorarium, IEEE ICDM, 2015
Dissertation Award, Tsinghua University, 2015
Excellent PhD Graduate, Beijing City, 2015
KDD 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

Program Committee Member:

- AAAI Conference on Artificial Intelligence (AAAI), 2017
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2017
- IEEE International Conference on Data Science & Advanced Analytics (DSAA), 2015

Session Chair: Special Session Big Behavioral Data Analytics (BBDA) in IEEE DSAA 2016 (wrote proposal, built website, called for papers, organized review process)

Journal Reviewer: Frontiers of Computer Science (FCS), IEEE Intelligent Systems (IS), INFORMS Journal on Computing (JOC), Information Sciences (INS), Journal of Computers (JCP), Knowledge and Information Systems (KAIS), Neurocomputing (NEWCOM), Trans. on Information Forensics and Security (TIFS), Trans. on Intelligent Systems and Technology (TIST), Trans. on Internet and Information Systems (TIIS), 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), NIPS 2016

External Reviewer: PKDD 2016, EDBT 2016, AAAI 2016, KDD 2015, IJCAI 2015, AAAI 2015, WSDM 2015, ICDM 2014, CIKM 2014, KDD 2014, Globecom 2014

Volunteer: KDD 2014

REFERENCES

Professor Shiqiang Yang: my Ph.D. advisor

Affiliation: Department of Computer Science and Technology, Tsinghua University, Haidian, Beijing 100084, China

E-mail: yangshq@tsinghua.edu.cn

Phone: +86-10-62771978

Abel Bliss Professor Jiawei Han: my postdoctoral training advisor

Affiliation: Department of Computer Science, University of Illinois at Urbana-Champaign, IL 61801, USA

E-mail: hanj@cs.uiuc.edu

Phone: (217) 333-6903

Professor Christos Faloutsos: my advisor when I was a visiting Ph.D. student

Affiliation: Department of Computer Science, Carnegie Mellon University, Pittsburgh, PA 15213, USA

E-mail: christos@cs.cmu.edu

Phone: (412) 268-1457

Assistant Professor Fei Wang: advised me in six collaborative publications

Affiliation: Department of Healthcare Policy and Research, Weill Cornell Medical School, Cornell University, New York, NY 10065, USA

E-mail: feiwang03@gmail.com

Phone: (646) 962-8069

Additional references available upon request.

(Last updated on November 11, 2016)