Meng Jiang

CONTACT INFORMATION	Office 2130, Siebel Center for Computer Science

CONTACT INFORMATION

Office 2130, Siebel Center for Computer Science   Mobile: (+1) (217) 418 6072
University of Illinois at Urbana-Champaign   E-mail: mjiang89@gmail.com
201 N Goodwin Ave, Urbana, IL 61801, USA   http://www.meng-jiang.com
Google Scholar: #citation = 521 (326 as the first author), h-index = 9
● https://scholar.google.com/citations?user=LZIPfCkAAAAJ

RESEARCH INTERESTS

Data-driven Behavioral Analytics
● Methodology: from observation, representation to models and algorithms;
● Applications: behavior prediction, recommender systems, anti-fraud systems, etc.
Given massive behavior data, I study
  ● Mining multidimensional behavior network with social spatiotemporal contexts;
  ● Structuring rich information network from unstructured behavioral content;
  ● Integrating networks for intelligent and trustworthy systems.

JOB EXPERIENCE

University of Illinois at Urbana-Champaign, IL, US   August 2015 – Present
  ● Postdoctoral Research Associate in Data Mining Group, Computer Science
  ● Advisor: Professor Jiawei Han

University of Maryland, College Park, MD, US   June 2016 – July 2016
  ● Visiting Researcher in Institute for Advanced Computer Studies
  ● Advisor: Professor V.S. Subrahmanian

EDUCATION EXPERIENCE

Tsinghua University, Beijing, China   August 2010 – July 2015
  ● Ph.D. of Engineering with *Dissertation Award* in Computer Science
  ● Advisor: Professor Shiqiang Yang
  ● Thesis: Modeling complex behaviors in social media
  ● Thesis committee: Professor Xindong Wu (Alfred and Helen Lamson Endowed Professor in University of Louisiana at Lafayette), Professor Philip S. Yu (Distinguished Professor in University of Illinois at Chicago) and Professor Xiaoyan Zhu (Director of Intelligent Technology Lab in Tsinghua University)

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 with *Excellent Thesis Award* in Computer Science
  ● Thesis: Reranking news feed in social recommender systems

REFEREED JOURNAL PUBLICATIONS

[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. (IF = *1.331*)

[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. (IF = *2.476*, #citation = *35*)

[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. (IF = *2.476*)

[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. (IF = *1.702*)

[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. (IF = *1.000*)

[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. (IF = *3.532*)

[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. (IF = *2.476*)

REFEREED CONFERENCE PUBLICATIONS

[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 = *189*)

[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. (#citation = *119*, the 3rd most cited in 146 accepted CIKM'12 papers)

[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. (#citation = *47*, the 9th most cited in 146 accepted CIKM'12 papers)

[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 = *16*)

[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. (#citation = *27*)

[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. (#citation = *13*)

[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. (#citation = *37*, **selected as one of the best paper finalists**)

[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. (#citation = *13*)

[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.

[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.

[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.

[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.

BOOK CHAPTERS [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.

[B2] **Meng Jiang**. "Behavior Modeling in Social Networks", in "Encyclopedia of Social Network Analysis and Mining", 2nd edition, Springer, 2016.

TUTORIALS [T1] **Meng Jiang** and Peng Cui. "Behavior Modeling in Social Networks: From Micro to Macro", in IEEE International Conference on Data Mining (ICDM), 2015. (All 3 hours, 50+ audience and $700 honorium)

[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 2.5 of 3 hours)

WORKSHOP PAPER [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.

GRANT PROPOSAL WRITING [G1] "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** wrote 8/15 pages of the proposal and he is the major supported member.

INVITED TALKS [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)

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

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

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

MAJOR PROJECT EXPERIENCE **NSF IIS 16-18481:** Multi-Dimensional Structuring, August 2016 – Present
Summarizing and Mining of Social Media Data
• Major supported member: wrote 8/15 pages of the NSF III Small proposal.

NS CTA I4: Distributed, User-Oriented Multi-Scale June 2016 – July 2016
Network Summarization and Online Analytical Processing
• Visited U.S. Army Research Lab at Aberdeen Proving Ground. Collaborated with Dr. Timothy P. Hanratty, Dr. John Richardson and Heather Roy.

NS CTA I1: Constructing Unified, Structured June 2016 – July 2016
Knowledge Networks by Integrating Text, Social Media and Multi-Genre Networks
• 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
- Developed a cross-platform transfer learning model. Published in AAAI 2016.
- Mentor: Dr. Xing Xie. Won *Award of Excellence* in MSRA Internship Program.

Tsinghua-Tencent Lab: Mining Rich Social Media Data   July 2011 – July 2015
- Deployed social recommender systems in Weibo News Feed. Improved conversion rate from 5.78% to 8.27% (relatively 43%).
- Developed a scalable algorithm to detect fake/zombie followers. Won ACM SIGKDD 2014 *Best Paper Finalist*.

TEACHING
EXPERIENCE

UIUC CS412: An Introduction to Data Warehousing and Data Mining   Fall 2016
- Taught for undergraduates occasionally (e.g., Data Warehousing and OLAP chapter, Data Cube chapter) when the Instructor Professor Jiawei Han was out of town.
- Led three teams (24 students) in "Triple Scoring" project in WSDM Cup 2017. Provided three promising solutions and a complementary dataset.

UIUC CS598: Advanced Topics in Information Retrieval   Fall 2016
- Guest lecture about attribute discovery from massive text corpora. Invited by the Instructor Professor ChengXiang Zhai.

UIUC CS512: Data Mining: Principles and Algorithms   Spring 2016
- Led three teams (9 graduates) for Projects of "Relationship Prediction".

THU CS-SMT: Streaming Media Technology   Fall 2013
- Teaching assistant for over 50 *graduate* students.

THU CS-MFA: Multimedia Fundamentals and Applications   Spring 2013
- Teaching assistant for over 160 *undergraduate* students.

MENTORED
STUDENTS

Jingbo Shang: Using discriminative patterns for prediction   Spring 2016
- Ph.D. student at University of Illinois at Urbana-Champaign.
- *Submitted a manuscript to TKDE and a conference paper to WSDM 2017.*

Kun Kuang: Understanding promotional strategies in social media   2014 – 2016
- Ph.D. student at Tsinghua University.
- *Collaborated in ICDM 2016 paper.*

Suhansanu Kumar: Generating heterogeneous graphs with distributions   2016
- Master student at University of Illinois at Urbana-Champaign.

Vipul Venkataraman: Enhancing relationship prediction   2015 – 2016
Pramod Srinivasan   with network embedding
- Master students at University of Illinois at Urbana-Champaign.

Xumin Chen: Social recommendation across multiple domains   2015
- Undergraduate at Tsinghua University (now Ph.D. student at Tsinghua).
- *Collaborated in TKDE 2015 paper.*

Xinran Xu: Behavior modeling with spatiotemporal data   2013 – 2014
- Undergraduate at Tsinghua University (now Master student at Tsinghua).
- *Collaborated in KDD 2014 paper.*

Rui Liu: Social recommendation with contextual information   2011 – 2012
- Undergraduate in Tsinghua University (Master student at University of Washington, now Ph.D. student at Dartmouth College).
- *Collaborated in CIKM 2012 and TKDE 2014 papers.*

Tsinghua-Samsung User Intention Inference Project   2010 – 2011
    • Led undergraduate students to develop an Android app that recommends activities in campus. Wrote project proposal, mid-term and final reports.
    • **Chao Zhang**, **Daixin Wang**, **Tianyang Zhang** (now Ph.D. students at Tsinghua)
    • **Yingjie Zhang**, **Yihan Sun** (now Ph.D. students at Carnegie Mellon University)

HONORS AND AWARDS	KDD 2016 Rising Stars, Microsoft Academic Search, 2016

HONORS AND AWARDS

KDD 2016 Rising Stars, Microsoft Academic Search, 2016
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

SERVICES

PC Member: AAAI 2017, PAKDD 2017, DSC 2016, IEEE DSAA 2015
Session Chair: Special Session BBDA in IEEE DSAA 2016
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 five 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 October 14, 2016)