# Meng Jiang

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RESEARCH INTERESTS Social Computing: Social media analysis and behavior modeling in social networks Data Integration for Prediction: Cross-domain and cross-platform recommendation Suspicious Behavior Detection: Fraud, spam and link farming detection

**EDUCATION** 

# University of Illinois at Urbana-Champaign, IL, USA August 2015 - Present

- Postdoctoral Research Associate, Data Mining Research Group in the Department of Computer Science at College of Engineering
- Advisor: Professor Jiawei Han

# Tsinghua University, Beijing, China

August 2010 - July 2015

- PhD of Engineering, Computer Science and Technology
- Advisor: Professor Shiqiang Yang
- Graduated with Excellent Doctoral Dissertation (Top 3 among 109 CS PhDs) and Excellent PhD Graduate, Beijing City

# Carnegie Mellon University, Pittsburgh, PA, USA August 2012 - May 2013

- Visiting Student, Computer Science
- Advisor: Professor Christos Faloutsos

### Tsinghua University, Beijing, China

August 2006 - July 2010

- Bachelor of Engineering, Computer Science and Technology
- GPA: 88.7/100; Excellent Undergraduate Student Award
- Graduated with Excellent Thesis of Undergraduate (Top 4 among 160)

Journal Papers

- [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. (Regular paper, IF = 1.35)
- [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. (Regular paper, IF = 2.07)
- [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. (Regular paper, IF = 2.07)
- [J4] **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. (to appear, IF = 0.93)
- [J5] **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 = 1.78)

[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 Magazine (ISSI), 2016. (to appear, IF = 2.34)

Conference Papers

- [C1] Lu Liu, Jie Tang, Jiawei Han, **Meng Jiang** and Shiqiang Yang. "Mining Topic-Level Influence in Heterogeneous Networks", in the 19th ACM International Conference on Information and Knowledge Management (CIKM), 2010.
- [C2] **Meng Jiang**, Peng Cui, Fei Wang, Qiang Yang, Wenwu Zhu and Shiqiang Yang. "Social Recommendation across Multiple Relational Domains", in the 21st ACM International Conference on Information and Knowledge Management (CIKM), 2012. (Full paper, acceptance rate = 13.4%, 32 citations till 10/2015)
- [C3] **Meng Jiang**, Peng Cui, Rui Liu, Qiang Yang, Fei Wang, Wenwu Zhu and Shiqiang Yang. "Social Contextual Recommendation", in the 21st ACM International Conference on Information and Knowledge Management (CIKM), 2012. (Full paper, acceptance rate = 13.4%, 78 citations till 10/2015)
- [C4] Meng Jiang, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. "Detecting Suspicious Following Behavior in Multimillion-Node Social Networks", in the 23rd International Conference on World Wide Web Companion (WWW), 2014. (Poster)
- [C5] **Meng Jiang**, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. "Inferring Strange Behavior from Connectivity Pattern in Social Networks", in the 18th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2014. (Regular paper with long presentation, acceptance rate = 10.8%, 10 citations till 09/2015)
- [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 the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2014. (Full paper, acceptance rate = 14.6%)
- [C7] **Meng Jiang**, Peng Cui, Alex Beutel, Christos Faloutsos and Shiqiang Yang. "CatchSync: Catching Synchronized Behavior in Large Directed Graphs", in the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2014. (Full paper, acceptance rate = 14.6%, **best paper finalist**: top 9/151)
- [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 the 15th IEEE International Conference on Data Mining (ICDM), 2015. (Short paper, acceptance rate =18.2%)

Tutorial

[T1] **Meng Jiang** and Peng Cui. "Behavior Modeling in Social Networks: From Micro to Macro", in the 15th IEEE International Conference on Data Mining (ICDM), 2015. (to appear)

Honors and Awards Excellent PhD Graduate, Beijing City, 2015

Excellent Doctoral Dissertation, Tsinghua University, 2015

National Scholarship, China, 2014

Award of Excellence in Microsoft Research Asia Internship Program, 2014

#### KDD Best Paper Finalist, 2014

KDD Student Travel Award, 2014

PAKDD Student Travel Grant Award, 2014

Sohu Graduate Research Fellowship, 2013

Excellent Thesis of Undergraduate Students, 2010

Excellent Undergraduate Student Award, 2010

Tsinghua-Toyota Scholarship, 2008

# RESEARCH EXPERIENCE

# University of Illinois at Urbana-Champaign, College of Engineering, Department of Computer Science

Postdoctral Research Associate for Prof. Jiawei Han August 2015 - Present My research is constructing and mining heterogeneous behavioral networks.

# Carnegie Mellon University, Computer Science Department

Visiting Student in Prof. Christos Faloutsos's Group August 2012 - May 2013 My research has ranged from mining large graphs of "who-follows-whom" networks to detecting fraudulent behavior in social networks.

# Tsinghua University, Department of Computer Science and Technology

Research Assistant for Prof. Shiqiang Yang

August 2010 - July 2015

Teaching Assistant for Multimedia Computing

Spring 2011

My research is mining user behaviors, ranging from social recommendation to user behavior pattern discovery in temporal data.

# PROJECT & INTERNSHIP EXPERIENCE

## Tsinghua-Tencent APP Recommendation Project

Team Leader (Mentor: Chuan Chen) September 2014 - June 2015 Developed APP downloading/installing behavior prediction algorithms by integrating cross-domain and social data.

# Microsoft Research Asia (MSRA)

Full-time Research Intern (Mentor: Dr. Xing Xie) July 2014 - September 2014 Research on constructing a unified network and transfer learning across social platforms (Douban and Weibo). I got Award of Excellence in MSRA Intern Program.

# Tsinghua-Tencent Joint Lab

Software Engineering Intern (Mentor: Gordon Sun) April 2011 - March 2012 Research on improving Tencent search engine SOSO performance with social media data from Tencent Weibo.

#### Tsinghua-Samsung User Intention Inference Project

Team Leader (Mentor: Dr. Yuanyuan Shi) March 2011 - January 2012 As the team leader, designed and implemented an Android application "Come On" that collects and recommends social activities in campus. Developed a user intention inference kernel algorithm and wrote the concluding report.

#### **Graphics Software Project**

Research Assistant (Mentor: Dr. Shimin Hu) May 2009 - August 2009 Developed a graphical plug-in in C# project implementing topological repair algorithm of solid model using skeleton.

Talks

"My Ph.D. work in Tsinghua University" at *Data Mining Research Group Meeting*, *UIUC*, September 18, 2015.

"Behavior prediction and anomaly detection in large-scale social networks." at Ten-

cent Big Data Seminar, July 25, 2014.

"User behavior analysis in social networks: pattern discovery, prediction and anomaly detection." at MSRA, July 8, 2014.

SERVICES

PC member: IEEE DSAA 2015

Reviewer: IEEE Intelligent Systems (IS), Trans. on Knowledge and Data Engineering (TKDE), Knowledge and Information Systems (KAIS), Trans. on Information Forensics and Security (TIFS), Journal of Computers (JCP), Neurocomputing (NEWCOM), Trans. on Multimedia Computing Communications and Applications (TOMCCAP), World Wide Web Journal (WWWJ), Frontiers of Computer Science (FCS), Trans. on Knowledge Discovery from Data (TKDD), Trans. on Intelligent Systems and Technology (TIST), Information Sciences (INS), Transactions on Internet and Information Systems (TIIS)

 $\textbf{External reviewer:}\ \text{AAAI 2016}, \text{KDD 2015}, \text{IJCAI 2015}, \text{AAAI 2015}, \text{WSDM 2015},$ 

 ${\rm ICDM}\ 2014,\ {\rm CIKM}\ 2014,\ {\rm KDD}\ 2014,\ {\rm Globecom}\ 2014$ 

Volunteer: KDD 2014

ACTIVITIES

Career Guidance, Computer Science Department, Tsinghua July 2010 - July 2011 Vice President of Students' Union May 2008 - May 2009

SKILLS Python, R, Matlab, JAVA, C++, C#