Meng Jiang

Contact
Information

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RESEARCH INTERESTS

Data-driven Behavior Modeling

- *Methodology*: Modeling content, social context, spatiotemporal context, multiple sources and intentions with advanced learning and mining approaches.
- Applications: Pattern discovery, summarization, prediction, recommendation and suspicious behavior 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, 22 citations till 05/2016)
- [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. "Inferring Lockstep Behavior from Connectivity Pattern in Large Graphs", in Knowledge and Information Systems (KAIS), 2015. (Regular paper, IF = 1.78)

- [J5] **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. (Survey paper, IF = 2.34)
- [J6] **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, regular paper, IF = 0.93)
- [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. (To appear, regular paper, IF = 2.07)

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. (Full paper, 166 citations till 05/2016)
- [C2] **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%, 100 citations till 05/2016)
- [C3] **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%, 40 citations till 05/2016)
- [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, 14 citations till 05/2016)
- [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%, 22 citations till 05/2016)
- [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%, 8 citations till 05/2016)
- [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, 27 citations till 05/2016)
- [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%, 7 citations till 05/2016)

[C9] Meng Jiang, Peng Cui, Nicholas Jing Yuan, Xing Xie and Shiqiang Yang. "Little is Much: Bridging Cross-Platform Behaviors through Overlapped Crowds", in the 30th AAAI Conference on Artificial Intelligence (AAAI), 2016. (Regular paper, acceptance rate = 26%)

[C10] Meng Jiang, Christos Faloutsos and Jiawei Han. "CatchTartan: Representing and Summarizing Dynamic Multicontextual Behaviors", in the 22th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2016. (Full paper with oral presentation, acceptance rate = 8.9%)

BOOK CHAPTER

[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.

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.

INVITED TALK

"Modeling complex behavior in social media", at *University of Massachusetts Boston*, November 23, 2015.

"Behavior prediction and anomaly detection in large-scale social networks", at *Tencent Big Data Seminar*, July 25, 2014.

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

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.

Services

Special session chair: BDAA in IEEE DSAA 2016

PC member: IEEE DSAA 2015, DSC 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)

External reviewer: EDBT 2016, AAAI 2016, KDD 2015, IJCAI 2015, AAAI 2015, WSDM 2015, ICDM 2014, CIKM 2014, KDD 2014, 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#