HOUPING XIAO

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Robinson College of Business ⋄ Georgia State University
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EDUCATION

The State University of New York at Buffalo   AUGUST 2013 – JUNE 2018
Ph.D. *Computer Science & Engineering* (Advisor: Dr. Jing Gao)
Beijing Normal University, China   SEPTEMBER 2007 – JUNE 2011
B.S. in Statistics, *School of Mathematical Science*

RESEARCH INTERESTS

- Data Aggregation/Fusion, with a specific area on Truth Discovery
- Deep Learning and Reinforcement Learning
- Multi-Source Trustworthiness Analysis
- Data Mining and Machine Learning
- Privacy-preserving Data Mining
- Statistics and Optimization
- Business Data Analytics
- Adversarial Learning

RESEARCH EXPERIENCE

Assistant Professor   AUGUST 2018 - Present
Institute for Insight, Robinson College of Business
Georgia State University
Research Assistant   AUGUST 2013 - JUNE 2018
Department of Computer Science & Engineering   *Supervisor: Jing Gao*
The State University of New York at Buffalo
Summer Intern   JUNE 2016 - AUGUST 2016
Summer Intern   JUNE 2015 - AUGUST 2015
Summer Intern   MAY 2014 - AUGUST 2014
Exploratory Stream Analytics   *Supervisors: Deepak Turaga*
IBM T.J. Watson Research Center
Scholar Visitor   JUNE 2017 - JULY 2017
Reinforcement Learning Center, Tencent AI Lab   *Supervisor: Han Liu*
Research Assistant   SEPTEMBER 2011 - JUNE 2013
Department of Mathematics   *Supervisor: Ding-Xuan Zhou*
City University of Hong Kong

TEACHING EXPERIENCE

MSA8040: Data Management for Analytics, Section 006 & 009   Fall 2018
Instructor, Institute for Insight, Robinson College of Business, GSU
Seminars in Mathematics for Finance and Actuarial Science   Spring 2013
Teaching Assistant, Department of Mathematics, City University of Hong Kong
Calculus & Basic Linear Algebra II   Spring 2013

Teaching Assistant, Department of Mathematics, City University of Hong Kong
Discrete Mathematics   Fall 2012
Marking Assistant, Department of Mathematics, City University of Hong Kong

PUBLICATIONS

Houping, Xiao *Multi-sourced Information Trustworthiness Analysis: Applications and Theory*, State University of New York at Buffalo, Collections: 2018-06-01 UB Theses and Dissertations, 2018.

Journal Papers

TKDE'18   **Houping Xiao**, Jing Gao, Qi Li, Fenglong Ma, Lu Su, Yunlong Feng, Aidong Zhang. *Towards Confidence Interval Estimation in Truth.* IEEE Transactions on Knowledge and Data Engineering, Accepted, 2018

ToN'18   Haiming Jin, Lu Su, **Houping Xiao**, Klara Nahrstedt. *INCEPTION: Incentivizing Privacy-Preserving Data Aggregation for Mobile Crowd Sensing Systems.* IEEE/ACM Transactions on Networking, 2018, Issue(99), Pages 1-14

TOSN'18   Chenglin Miao, Wenjun Jiang, Lu Su, Yaliang Li, Suxin Guo, Zhan Qin, **Houping Xiao**, Jing Gao, Kui Ren. *Privacy-Preserving Truth Discovery in Crowd Sensing System.* ACM Transactions on Sensor Networks, Accepted, 2018

Conference Papers

ICDM'18   **Houping, Xiao**, Fei Wang, Fenglong Ma, Jing Gao. *eOTD: An Efficient Online Tucker Decomposition for Higher Order Tensors.* IEEE International Conference on Data Mining, 2018, To Appear

BIBM'18   Fenglong Ma, Yaqing Wang, **Houping Xiao**, Ye Yuan, Radha Chitta, Jing Zhou, Jing Gao. *A General Framework for Diagnosis Prediction via Incorporating Medical Code Descriptions.* IEEE International Conference on Bioinformatics and Biomedicine, 2018, To Appear.

CIKM'18   Fenglong Ma, Quanzeng You, **Houping Xiao**, Radha Chitta, Jing Zhou and Jing Gao. *KAME: Knowledge-based Attention Model for Diagnosis Prediction in Healthcare.* International Conference on Information and Knowledge Management, 2018, To Appear

MobiHoc'18 Chenglin Miao, Qi Li, Lu Su, **Houping Xiao**, Wenjun Jiang, Mengdi Huai. *Towards Data Poisoning Attacks in Crowd Sensing Systems.* ACM International Symposium on Mobile Ad Hoc Networking and Computing, 2018, Pages 111-120. [Best Paper Award Finalist]

DAC'18   Cunxi Yu, **Houping Xiao** and Giovanni De Micheli. *Developing Synthesis Flows without Human Knowledge.* ACM/IEEE Design Automation Conference, 2018

KDD'17   **Houping Xiao**, Jing Gao, Long Vu, Deepak Turaga. *Learning Temporal State of Diabetes Patients via Combining Behavioral and Demographic Data.* ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Halifax, NS, Canada, August 2017, pages: 2081-2089.

KDD'17   Fenglong Ma, Chuishi Meng, **Houping Xiao**, Qi Li, Jing Gao, Lu Su, Aidong Zhang. *Unsupervised Discovery of Drug Side-Effects From Heterogeneous Data Sources.* ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Halifax, NS, Canada, August 2017, pages: 967-976.

SDM'17   **Houping Xiao**, Jing Gao, Long Vu, Deepak S. Turaga. *Detecting Malicious Behavior in Computer Networks via Cost-Sensitive and Connectivity Constrained Classification.* SIAM International Conference on Data Mining, Huston, Texas, USA, April 2017, pages: 117-125.

KDD'16   **Houping Xiao**, Jing Gao, Zhaoran Wang, Shiyu Wang, Lu Su, Han Liu. *A Truth Discovery Approach with Theoretical Guarantee.* ACM SIGKDD Conference on Knowledge Discovery and Data Mining, San Francisco, California, USA, August 2016, pages: 1925-1934.

KDD'16   **Houping Xiao**, Jing Gao, Qi Li, Fenglong Ma, Lu Su, Yunlong Feng, Aidong Zhang. *Towards Confidence in the Truth: A Bootstrapping based Truth Discovery Approach.* ACM SIGKDD Conference on Knowledge Discovery and Data Mining, San Francisco, California, USA, August 2016, pages: 1935-1944.

SenSys'16   Chuishi Meng, **Houping Xiao**, Lu Su, Yun Cheng. *Tackling the Redundancy and Sparsity in Crowd Sensing Applications.* ACM Conference on Embedded Networked Sensor Systems, Stanford, CA, November 14-16, 2016, pages: 150-163.

CIKM'16   Hengtong Zhang, Qi Li, Fenglong Ma, **Houping Xiao**, Yaliang Li, Jing Gao, Lu Su. *Influence-Aware Truth Discovery.* ACM International Conference on Information and Knowledge Management (CIKM), 2016, pages: 851-860.

MobiHoc'16   Haiming Jin, Lu Su, **Houping Xiao**. Klara Nahrstedt. *INCEPTION: Incentivizing Privacy-Preserving Data Aggregation for Mobile Crowd Sensing Systems.* ACM International Symposium on Mobile Ad Hoc Networking and Computing, Paderborn, Germany, 5-8 July 2016, pages: 341-350.

SenSys'15   Chenglin Miao, Wenjun Jiang, Lu Su, Yaliang Li, Suxin Guo, Zhan Qin, **Houping Xiao**, Jing Gao, Kui Ren. *Cloud-Enabled Privacy-Preserving Truth Discovery in Crowd Sensing Systems.* ACM Conference on Embedded Networked Sensor Systems (SenSys), 2015, pages: 183–196.

ICDM'15   Xiaoyi Li, Xiaowei Jia, Hui Li, **Houping Xiao**, Jing Gao, Aidong Zhang. *DRN: Bringing Greedy Layer-wised Training into Time Dimension.* IEEE International Conference on Data Mining, Atlantic City, NJ, USA, Novermber 14-17, 2015, pages: 859–864.

WWW'15   **Houping Xiao**, Jing Gao, Deepak S. Turaga, Long Vu, Alain Biem. *Temporal Multi-View Inconsistency Detection for Network Traffic Analysis.* International Conference on World Wide Web (Industry Track), Florence, Italy, May 2015, pages: 455–465.

SDM'15   **Houping Xiao**, Yaliang Li, Jing Gao, Fei Wang, Liang Ge, Wei Fan, Long Vu, Deepak S. Turaga. *Believe It Today or Tomorrow? Detecting Untrustworthy Information from Dynamic Multi-Source Data.* SIAM International Conference on Data Mining, Vancouver, Canada, April 2015, pages: 397-405.

Workshop Papers/Posters

ICDMW'15   **Houping Xiao**, Jing Gao. *Multi-Source Information Trustworthiness Analysis.* IEEE International Conference on Data Mining Workshop, Atlantic City, NJ, USA, Novermber 14-17, 2015, pages: 1600–1601.

SDM'15   **Houping Xiao**, Jing Gao. *Multi-Source Untrustworthy/Trustworthy Information Detection.* SIAM International Conference on Data Mining, In Doctoral Student Forum (Poster), Vancouver, Canada, April 2015.

Preprints and Submitted Papers

Houping Xiao, Shiyu Wang, Lu Su, Jing Gao. *Towards Data Quality Aware Distributed Learning.*

Houping Xiao, Qi Li, Zhaoran Wang, Jing Gao, Lu Su, Han Liu. *A Unified Truth Discovery Framework.*

Yaliang Li, **Houping Xiao**, Zhan Qin, Chenglin Miao, Lu Su, Jing Gao, Kui Ren, Bolin Ding. *Towards Differentially Private Truth Discovery for Crowd Sensing Systems.*

Fenglong Ma, Yaqing Wang, Jing Gao, Ye Yuan, **Houping Xiao**, Jing Zhou, Yaliang Li, Lu Su. *Fake is the New Real: Predicting Rare Diseases with Deep Generative Networks and Reinforcement Learning.*

INVITED TALKS

2018	"Exploring the Power of Source Reliability in Information Integration", Computer and Information Science, Fordham University, March 2018
2018	"Exploring the Power of Source Reliability in Information Integration", J. Mack Robinson College of Business, Georgia State University, March 2018
2018	"Exploring the Power of Source Reliability in Information Integration", Computer and Information Science, Temple University, February 2018
2018	"Exploring the Power of Source Reliability in Information Integration", Computer and Information Science, University of Michigan-Dearborn, March 2018
2017	"Multi-sourced Data mining ", Department of Mathematics and Statistics, University at Albany, December 11, 2017
2017	"Multi-sourced Data mining ", Department of Statistics, University of Georgia, October 31, 2017
2016	"Towards Truth Discovery in Big Data", School of Statistics, Beijing Normal University November 3, 2016

PATENTS

2017	Jing Gao, Deepak S. Turaga, Long Vu, **Houping Xiao**. "Learning Temporal States From Time-varying Data", Filed by IBM
2015	Jing Gao, Deepak S. Turaga, Long Vu, **Houping Xiao**. "Network security apparatus and method of detecting malicious behavior in computer networks via cost-sensitive and connectivity constrained classification ", US Patent No. 15141127, US20170353480A, Publication date: 2017/12/7
2015	Alain Biem, Jing Gao, Deepak S. Turaga, Long Vu, **Houping Xiao**. "Unsupervised Multi-Source Temporal Anomaly Detection", US Patent. No. 14674435, US20170060652A1, Publication date: 2017/1/5

HONORS AND AWARDS

Best Dissertation Award, CSE SUNY Buffalo	2018
SDM Student Travel Award, SIAM	2017
KDD Student Travel Award, ACM	2016
ICDM Student Travel Award, IEEE	2015
SDM Student Travel Award, SIAM	2015
Postgraduate Studentship, City University of Hong Kong	2012, 2013
National Scholarship, Ministry of Education of China	2010
Honor of Excellent Student, Beijing Normal University	2010
Mathematics First Scholarship for Undergraduates, Beijing Normal University	2009, 2010
National Scholarship Endeavorers, Ministry of Education of China	2009

PROFESSIONAL SERVICE

Conference PC Member:
- Association for the Advancement of Artificial Intelligence   2019

- IEEE BigData   2018

Reviewer:
- IEEE/ACM Transactions on Networking   2017
- Neurocomputing   2017
- Journal of Interface   2016
- NIPS   2016

External Reviewer:
WSDM'18, ICDM'18, VLDB'17, KDD'17, SDM'17, WWW'17, ICDM'16, KDD'16, SDM'16, AAAI'16, KDD'15, SDM'15, ICML'15, KDD'14, SDM'14