

Dr. Hui Xiong

MSIS Department
Rutgers, the State University of New Jersey
Voice: (973) 353-5261

Fax: (973) 353-5003
Email: hxiong@rutgers.edu
WWW: <http://datamining.rutgers.edu>

RESEARCH INTERESTS

Data Mining and Knowledge Discovery, Knowledge Management, Big Data Analytics, Mobile Computing, Business Intelligence, and Information Assurance.

EDUCATION

Ph.D., Computer Science, University of Minnesota - Twin Cities (UMN), 2005.

Ph.D. Minor, Statistics, University of Minnesota - Twin Cities (UMN)

M.S., Computer Science, National University of Singapore (NUS), 2000

B.E., Automation, University of Science and Technology of China (USTC), 1995

HONORS & AWARDS

- ACM Distinguished Scientist, 2014.
- Dean's Award for Meritorious Research, Rutgers Business School, 2010, 2011, 2013.
- 2011 IEEE ICDM Best Research Paper Award for the paper "Personalized Travel Package Recommendation", published at IEEE International Conference on Data Mining (one out of 786 submissions), 2011.
- Second Prize of Unsupervised and Transfer Learning Challenge, ICML and IJCNN, 2011.
- Rutgers University Board of Trustees Research Fellowship for Scholarly Excellence, 2009.
- IBM ESA Innovation Award, 2008.
- Junior Faculty Research Award (One Per School), Rutgers Business School, 2008.
- 2008 KDD Best Student Paper Award Runner-Up, for the paper "Volatile Correlation Computation: A Checkpoint View" published at ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2008).
- Junior Faculty Teaching Excellence Award (One Per School), Rutgers Business School, 2007.
- Elected Senior Member of IEEE, 2007.

PROFESSIONAL EXPERIENCE

Professor, Management Science and Information Systems Department
Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **July 2014 - Present**.

Vice Chair, Management Science and Information Systems Department
Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **July 2011 - July 2014**.

Associate Professor, Management Science and Information Systems Department
Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **July 2009 - June 2014**.

Visiting Scholar, STERN School of Business
New York University, **September 2009 - December 2009**.

Visiting Scholar, Microsoft Research Asia, **Spring 2012**.

Assistant Professor, Management Science and Information Systems Department

Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **August 2005 - June 2009.**

Director, Rutgers Center for Information Assurance
Rutgers, the State University of New Jersey, **October 2011 - Present.**

Member of DIMACS
Rutgers, the State University of New Jersey, **October 2009 - Present.**

Faculty Associate, Wireless Information Network Laboratory (WINLAB), Piscataway, NJ
Rutgers, the State University of New Jersey, **November 2007 - Present.**

Faculty Associate, Center for Information Management, Integration and Connectivity (CIMIC)
Rutgers, the State University of New Jersey, **August 2005 - present.**

Research Co-op, IBM TJ Watson Research Center, Summer 2005

Research Intern, Lawrence Berkeley National Laboratory, Summer 2004

TEACHING

PhD Students

- Zhongmou Li, Chuanren Liu (Supported by an NSF grant), Bin Liu, Yanjie Fu (Supported by an NSF grant), Zijun Yao, Konstantin Patev, Jingyuan Yang, Meng Qu, Farid Razzak, Hao Zhong, Can Chen
- Yong Ge (PhD in IT, 2013, **Assistant Professor, University of North Carolina - Charlotte**), the recipient of the Academic Excellence Award at Rutgers Business School
- Keli Xiao (PhD in Finance, 2013, co-supervised with Professor Yangru Wu, **Assistant Professor, Stony Brook University**)
- Wenjun Zhou (PhD in IT, 2011, **Assistant Professor, University of Tennessee - Knoxville**), the recipient of ACM SIGKDD Doctoral Dissertation Award Honorable Mention

Master Students

- Sadaf Hussain, Bingjie Lu, Bingxuan Feng, Mengyin Yang
- Can Chen (Graduated, 2013), Huikai Ma (Graduated, 2013), Srideepthi Narla (Graduated 2013), Liwen Xing (Graduated, 2012), Jing Li (Graduated, 2012), Jingyuan Yang (Graduated, 2012), Lakshmi Sahithi Dantu (Graduated, 2012), Uma Maheswari (Graduated, 2012), Rachana Ravi (Graduated, 2012), Jyotsna Sahirdayan (Graduated, 2011), Ishita Chokshi (Graduated, 2010), Elinor Volansky (Graduated, 2009), Mengjia Wang (Graduated, 2009)

Undergraduate Students

- Angela Chen (US Citizen, supported by an NSF REU grant)
- Islam Taman (US Citizen, supported by an NSF REU grant)

Courses Taught

- Graduate Course: "Data Mining (26:198:685)"
Fall 2006, Spring 2009, Spring 2011, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Spring 2015
- Full-time MBA Course: "Information Technology for Managers (22:198:504)"
Spring 2008, Spring 2010, Spring 2011
- Part-time MBA Course: "Computers & Information Systems (22:198:604)"
Spring 2007; Fall 2008
- Undergraduate Course: "Computer Network Applications (29:623:375)".
Fall 2005, Fall 2007, Fall 2008; Spring 2006, Spring 2007, Spring 2010

- Undergraduate Course: “Data Mining for Business Intelligence”.
Fall 2010
- Undergraduate Course: “Management Information Systems (29:623:220)”
Fall 2005, Spring 2006, Fall 2007

SELECTED PUBLICATIONS¹

Books

1. Shashi Shekhar and Hui Xiong (Editor-in-Chiefs), *Encyclopedia of GIS*, ISBN-10: 0387359753, ISBN-13: 978-0387359755, Springer; 1 edition, January, 2008. (**Selected by CHOICE Reviews as CHOICE Outstanding Academic Title of the Year 2008**)
2. Hui Xiong, *Hyperclique pattern discovery: Algorithms and applications*, ISBN: 0-5422-6663-6, ProQuest Information and Learning, March, 2006.
3. Weili Wu, Hui Xiong, Shashi Shekhar (Eds.), *Clustering and Information Retrieval*, ISBN: 1-4020-7682-7, Kluwer Academic Publishers, 2003.

Journal Papers

1. Hengshu Zhu, Hui Xiong, Yong Ge, Enhong Chen: Discovery of Ranking Fraud for Mobile Apps. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(1): 74-87, 2015.
2. Junjie Wu, Hongfu Liu, Hui Xiong, Jie Cao, Jian Chen: K-Means-Based Consensus Clustering: A Unified View. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(1): 155-169, 2015.
3. Bin Liu, Hui Xiong, Spiros Papadimitriou, Yanjie Fu, and Zijun Yao, A General Geographical Probabilistic Factor Model for Point of Interest Recommendation, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(5): 1167-1179, 2015.
4. Nicholas Jing Yuan, Yu Zheng, Xing Xie, Yingzi Wang, Kai Zheng, Hui Xiong: Discovering Urban Functional Zones Using Latent Activity Trajectories. *IEEE Transaction Knowledge Data Engineering (TKDE)*, 27(3): 712-725, 2015.
5. Xiuyuan Zheng, Jie Yang, Yingying Chen, Hui Xiong: An Adaptive Framework Coping with Dynamic Target Speed for Device-Free Passive Localization. *IEEE Transactions on Mobile Computing (TMC)*, 14(6): 1138-1150, 2015.
6. Yong Ge, Hui Xiong, Alexander Tuzhilin and Qi Liu, Cost-aware Collaborative Filtering for Travel Tour Recommendations, *ACM Transactions on Information Systems (TOIS)*, Vol. 32, No. 1: 4, 2014.
7. Hengshu Zhu, Chuanren Liu, Yong Ge, Hui Xiong, Enhong Chen, Popularity Modeling for Mobile Apps: A Sequential Approach, In *IEEE Transactions on Cybernetics (TC)*, to Appear, 2014.
8. Yong Ge, Guofei Jiang, Min Ding, and Hui Xiong, Ranking Metric Anomaly in Invariant Networks, *ACM Transactions on Knowledge Discovery from Data (TKDD)*, Volume 8 Issue 2, No. 8, June 2014.
9. Qi Liu, Enhong Chen, Hui Xiong, Yong Ge, Zhongmou Li, Xiang Wu, A Cocktail Approach for Travel Package Recommendation, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol. 26, No. 2, pp. 278 - 293, 2014.
10. Fuzhen Zhuang, Ping Luo, Changying Du, Qing He, Zhongzhi Shi, Hui Xiong: Triplex Transfer Learning: Exploiting Both Shared and Distinct Concepts for Text Classification. *IEEE Transactions on Cybernetics (TC)*, Vol. 44, No. 7, pp. 1191-1203, 2014.
11. Fuzhen Zhuang, Ping Luo, Changying Du, Qing He, Zhongzhi Shi, Hui Xiong: Triplex Transfer Learning: Exploiting Both Shared and Distinct Concepts for Text Classification. *IEEE Transactions on Cybernetics (TC)*, Vol. 44, No. 7, pp. 1191-1203, 2014.
12. Tianming Hu, Chuanren Liu, Yong Tang, Jing Sun, Hui Xiong, Sam Yuan Sung: High-dimensional clustering: a clique-based hypergraph partitioning framework. *Knowledge and Information System*, Vol. 39, No. 1, pp. 61-88, 2014.

¹A more up-to-date list of publications is available at my homepage <http://datamining.rutgers.edu/>

13. Hengshu Zhu, Huanhuan Cao, Enhong Chen, Hui Xiong, Jilei Tian, Mobile App Classification with Enriched Contextual Information, *IEEE Transactions on Mobile Computing (TMC)*, 13(7): 1550-1563, 2014.
14. Hengshu Zhu, Enhong Chen, Hui Xiong, Kuifei Yu, Huanhuan Cao, Jilei Tian: Mining Mobile User Preferences for Personalized Context-Aware Recommendation, *ACM Transaction on Intelligent Systems and Technology (TIST)*, 5(4): 58:1-58:27, 2014.
15. Hengshu Zhu, Enhong Chen, Hui Xiong, Huanhuan Cao, Jilei Tian, Ranking User Authority with Relevant Knowledge Categories for Expert Finding, *World Wide Web Journal (WWWJ)*, Vol. 17, No. 5, pp. 1081-1107, 2014.
16. Jie Cao, Zhiang Wu, Junjie Wu, Hui Xiong, SAIL: Summation-bAsed Incremental Learning for Information-Theoretic Text Clustering, *IEEE Transactions on Cybernetics (TC)*, Vol. 43, No. 2, pp. 570-584, 2013.
17. Yanchi Liu, Zhongmou Li, Hui Xiong, Xuedong Gao, Junjie Wu, Sen Wu, Understanding and Enhancement of Internal Clustering Validation Measures, *IEEE Transactions on Cybernetics (TC)*, Vol. 43, No. 3, pp. 982-994, 2013.
18. Byron Gao, Martin Ester, Hui Xiong, Jin-Yi Cai, Oliver Schulte, The Minimum Consistent Subset Cover Problem: A Minimization View of Data Mining, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol. 25, No. 3, pp. 690-703, 2013.
19. Zhongmou Li, Hui Xiong, Yanchi Liu, Mining Blackhole and Volcano Patterns in Directed Graphs: A General Approach, *Data Mining and Knowledge Discovery Journal*, pp. 577-602, 2012.
20. Hongyan Liu, Jun He, Yingqin Gu, Hui Xiong, Xiaoyong Du, Detecting and Tracking Topics and Events from Web Search Logs, *ACM Transactions on Information Systems (TOIS)*, Vol. 30, No. 4, 2012.
21. Junjie Wu, Hui Xiong, Chen Liu, and Jian Chen. A Generalization of Distance Functions for Fuzzy c-Means Clustering, *IEEE Transactions on Fuzzy Systems (TFS)*, Vol. 20, No. 3, PP. 557 - 571, 2012.
22. Stephen France, Douglas Carroll, Hui Xiong, Distance Metrics for High Dimensional Nearest Neighborhood Recovery: Compression and Normalization, *Information Sciences*, Volume 184, Issue 1, Pages 92 - 110, February 2012.
23. Junjie Wu, Shiwei Zhu, Hui Xiong, Jian Chen, Jianming Zhu, Adapting the Right Measures for Pattern Discovery: A Unified View. *IEEE Transactions on Systems, Man, and Cybernetics, Part B (TSMCB)*, Vol. 42, No 4, pp. 1203-1214, 2012.
24. Byron J. Gao, Obi L. Griffith, Martin Ester, Hui Xiong, Qiang Zhao, Steven J.M. Jones, On The Deep Order-Preserving Submatrix Problem: A Best-Effort Approach, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Volume 24, Number 1, pp. 309-325, 2012.
25. Fuzhen Zhuang, Ping Luo, Zhiyong Shen, Qing He, Yuhong Xiong, Zhongzhi Shi, Hui Xiong, Mining Distinction and Commonality across Multiple Domains using Generative Model for Text Classification, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol. 24, No. 11, pp. 2025 - 2039, November, 2012.
26. Qi Liu, Enhong Chen, Hui Xiong, Chris H.Q. Ding, Jian Chen, Enhancing Collaborative Filtering by User Interests Expansion via Personalized Ranking, *IEEE Transactions on Systems, Man, and Cybernetics — Part B (TSMCB)*, Volume 42, Number 1, pp. 218-233, February 2012.
27. Aabhas Paliwal, Basit Shafiq, Jaideep Vaidya, Hui Xiong, and Nabil Adam, Semantics Based Automated Service Discovery, *IEEE Transactions on Services Computing (TSC)*, Vol 5, No 2, pp. 260-275, 2012.
28. Wenjun Zhou, Hui Xiong, Checkpoint Evolution for Volatile Correlation Computing, *Machine Learning*, 83(1), pp. 103-131, 2011.
29. Yong Ge, Hui Xiong, Wenjun Zhou, Siming Li and Ramendra Sahoo, Multi-focal Learning for Customer Problem Analysis , *ACM Transaction on Intelligent Systems and Technology (TIST)*, Volume 2, Issue 3, April 2011.

30. Xiaobin Ma, Chengyang Zhang, Shashi Shekhar, Yan Huang, and Hui Xiong, On Multi-type Reverse Nearest Neighbor Search, **Data & Knowledge Engineering (DKE)**, Vol. 70, No. 11, pp. 955-983, 2011.
31. Fuzhen Zhuang, Ping Luo, Hui Xiong, Qing He, Yuhong Xiong, Zhongzhi Shi, Exploiting Associations between Word Clusters and Document Classes for Cross-domain Text Categorization, **Statistical Analysis and Data Mining**, Vol 4, no. 1, pp. 100 - 114, 2011.
32. Shiwei Zhu, Junjie Wu, Hui Xiong, and Guoping Xia. Scaling up Top-K Cosine Similarity Search, **Data and Knowledge Engineering (DKE)**, Volume 70, Number 1, January 2011.
33. Junjie Wu, Hui Xiong, Jian Chen, COG: Local Decomposition for Rare Class Analysis, **Data Mining and Knowledge Discovery Journal**, Vol. 20, No. 2, pp. 191 - 220, March 2010.
34. Fuzhen Zhuang, Ping Luo, Hui Xiong, Yuhong Xiong, Qing He, Zhongzhi Shi, Cross-domain Learning From Multiple Sources: A Consensus Regularization Perspective, **IEEE Transactions on Knowledge and Data Engineering (TKDE)**, Volume 22, Number 12, pp. 1664-1678, December 2010.
35. Baik Hoh, Marco Gruteser, Hui Xiong, Ansaf Alrabady, Achieving Guaranteed Anonymity in GPS Traces via Uncertainty-Aware Path Cloaking, **IEEE Transactions on Mobile Computing (TMC)**, Volume 9, Number 8, pp. 1089-1107, August 2010. (selected as the Spotlight Paper for the August 2010 issue)
36. Junjie Wu, Hua Yuan, Hui Xiong, Guoqing Chen: Validation of overlapping clustering: A random clustering perspective. *Information Science*, 180 (22), pp. 4353 - 4369, 2010.
37. Cui Yu, Rui Zhang, Yaochun Huang, Hui Xiong, High-dimensional kNN joins with incremental updates, the **GeoInformatica**, An Int'l Journal on Advances of Computer Science for Geographic Information System, Volume 14, Number 1, pp. 55 - 82, January 2010.
38. Hua Yuan, Guoqing Chen, Junjie Wu, and Hui Xiong. Towards Controlling Virus Propagation in Information Systems with Point-to-Group Information Sharing, **Decision Support Systems**, Volume 48, Issue 1, December, 2009.
39. Hui Xiong, Junjie Wu, and Jian Chen. K-means Clustering Versus Validation Measures: A Data Distribution Perspective, **IEEE Transactions on Systems, Man, and Cybernetics — Part B (TSMCB)**, Vol. 39, No. 2. (2009), pp. 318-331, 2009.
40. Ping Luo, Hui Xiong, Guoxing Zhan, Junjie Wu, Zhongzhi Shi, Information-Theoretic Distance Measures for Clustering Validation: Generalization and Normalization, **IEEE Transactions on Knowledge and Data Engineering (TKDE)**. Vol. 21, No. 9, pp. 1249-1262, September 2009.
41. Xing Jiang, Hui Xiong, Chen Wang, Ah-Hwee Tan, Mining Globally Distributed Frequent Subgraphs in a Single Labeled Graph, **Data & Knowledge Engineering (DKE)**, Vol. 68, No. 10, pp. 1034 - 1058, 2009.
42. Hui Xiong, Michael Steinbach, Arifin Ruslim, Vipin Kumar, Characterizing Pattern Preserving Clustering, the **Knowledge and Information Systems (KAIS)** journal, Volume 19, Issue 3, pp. 311-336, June 2009.
43. Dihua Guo, Hui Xiong, Vijay Atluri, Nabil Adam, Object Discovery in High-Resolution Remote Sensing Imagery: A Semantic Perspective, the **Knowledge and Information Systems (KAIS)** Journal, Volume 19, Issue 2, pp. 211-233, May, 2009.
44. Hui Xiong, Wenjun Zhou, Mark Brodie, Sheng Ma, TOP-K ϕ Correlation Computation, **INFORMS Journal on Computing (JOC)**, Vol. 20, No. 4, pp. 539-552, 2008.
45. Tianming Hu, Sam Y Sung, Hui Xiong, Qian Fu, Discovery of Maximum Length Frequent Itemsets, **Information Sciences**, Vol. 178, Issue 1, pp. 69 - 87, January 2008.
46. Hui Xiong, Michael Steinbach, Vipin Kumar, Privacy Leakage in Multi-relational Databases: A Semi-supervised Learning Perspective, **VLDB Journal Special Issue on Privacy Preserving Data Management**, Vol. 15, No. 4, pp. 388-402, November, 2006.

47. Hui Xiong, Shashi Shekhar, Pang-Ning Tan, Vipin Kumar, TAPER: A Two-Step Approach for All-strong-pairs Correlation Query in Large Databases, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 18(4), pp. 493-508, April, 2006.
48. Hui Xiong, Pang-Ning Tan, and Vipin Kumar, Hyperclique Pattern Discovery, *Data Mining and Knowledge Discovery Journal*, Vol. 13, No. 2, pp. 219-242, September, 2006.
49. Hui Xiong, Gaurav Pandey, Michael Steinbach, Vipin Kumar, Enhancing Data Analysis with Noise Removal, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 18(3), pp. 304-319, March, 2006.
50. Yao Liu, Sam Y. Sung, Hui Xiong, A Cubic-Wise Balance Approach for Privacy Preservation in Data Cubes, *Information Sciences*, 176(9), pp. 1215-1240, May, 2006.
51. Yan Huang, J. Pei, and Hui Xiong, Mining Co-location Patterns in Spatial Data Sets with Rare Events, *GeoInformatica - An International Journal on Advances of Computer Science for Geographic Information Systems*, vol. 10, issue 3, September, 2006.
52. Jieping Ye, Qi Li, Hui Xiong, Haesun Park, Ravi Janardan, and Vipin Kumar. IDR/QR: An Incremental Dimension Reduction Algorithm via QR Decomposition, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Special Issue - Intelligent Data Preparation, 17(9), pp. 1208-1222, September 2005.
53. Yan Huang, Shashi Shekhar, and Hui Xiong (Corresponding Author), Discovering Co-location Patterns from Spatial Datasets: A General Approach, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 16(12), pp. 1472 - 1485, December 2004.

Conference Papers

1. Chuanren Liu, Fei Wang, Jianying Hu and Hui Xiong. Temporal Phenotyping from Longitudinal Electronic Health Records: A Graph Based Framework. The 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2015**). 2015, to appear.
2. Yanjie Fu, Guannan Liu, Spiros Papadimitriou, Hui Xiong, Yong Ge, Hengshu Zhu, Chen Zhu. Real Estate Ranking via Mixed Land-use Latent Models. The 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2015**). 2015, to appear.
3. Bin Liu, Deguang Kong, Lei Cen, Neil Zhenqiang Gong, Hongxia Jin, Hui Xiong: Personalized Mobile App Recommendation: Reconciling App Functionality and User Privacy Preference. in Proceedings of the Eighth ACM International Conference on Web Search and Data Mining (**WSDM**), pp. 315-324, 2015.
4. Hengshu Zhu, Hui Xiong, Yong Ge, Enhong Chen. Mobile App Recommendation with Security and Privacy Awareness. The 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2014**), pp. 951 - 960, 2014.
5. Yanjie Fu, Hui Xiong, Yong Ge, Zijun Yao, Yu Zheng, Zhi-Hua Zhou. Exploiting Geographic Dependencies for Real Estate Appraisal: A Mutual Perspective of Ranking and Clustering. The 20th SIGKDD conference on Knowledge Discovery and Data Mining (**KDD 2014**), pp. 1047 - 1056, 2014.
6. Meng Qu, Hengshu Zhu, Junming Liu, Guannan Liu, Hui Xiong. A Cost-Effective Recommender System for Taxi Drivers. 2014 ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2014**), pp. 45 - 54, 2014.
7. Chuanren Liu, Kai Zhang, Hui Xiong, Guofei Jiang, Qiang Yang. Temporal Skeletonization on Sequential Data: Patterns, Categorization, and Visualization. The 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2014**), pp. 1336-1345, 2014.
8. Chuanren Liu, Yong Ge, Hui Xiong, Keli Xiao, Wei Geng, Matt Perkins. Proactive Workflow Modeling by Stochastic Processes with Application to Healthcare Operation and Management. The 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2014**), pp. 1593-1602, 2014.

9. Yanjie Fu, Yong Ge, Zijun Yao, Yu Zheng, Yanchi Liu, Hui Xiong. Sparse Real Estate Ranking with Online User Reviews and Offline Moving Behaviors. In Proceedings of the 14th IEEE Conference on Data Mining (**ICDM 2014**), Shenzhen, China, 2014.
10. Yanchi Liu, Chuanren Liu, Jing Yuan, Lian Duan, Yanjie Fu, Hui Xiong. Exploiting Heterogeneous Human Mobility Patterns for Intelligent Bus Routing. In Proceedings of the 14th IEEE Conference on Data Mining (**ICDM 2014**), Shenzhen, China, 2014.
11. Bo Jin, Yong Ge, Hengshu Zhu, Guo Li, Hui Xiong, Chao Zhang, Technology Prospecting for High Tech Companies through Patent Mining, In Proceedings of the 14th IEEE Conference on Data Mining (**ICDM 2014**), Shenzhen, China, 2014.
12. Liang Wu, Liang Du, Bo Liu, Guandong Xu, Yong Ge, Yanjie Fu, Yuanchun Zhou, Jianhui Li, Hui Xiong. Heterogeneous Metric Learning with Content-based Regularization for Software Artifact Retrieval. In Proceedings of the 14th IEEE Conference on Data Mining (**ICDM'14**), Shenzhen, China, 2014.
13. Guannan Liu, Yanjie Fu, Tong Xu, Hui Xiong, Guoqing Chen. Discovering Temporal Retweeting Patterns for Social Media Marketing Campaigns. In Proceedings of the 14th IEEE Conference on Data Mining (**ICDM 2014**), Shenzhen, China, 2014.
14. Qi Liu, Zheng Dong, Chuanren Liu, Xing Xie, Enhong Chen, Hui Xiong. Social Marketing Meets Targeted Customers: A Typical User Selection and Coverage Perspective, In Proceedings of the 14th IEEE Conference on Data Mining (**ICDM 2014**), Shenzhen, China, 2014.
15. Biao Chang, Hengshu Zhu, Yong Ge, Enhong Chen, Hui Xiong, Chang Tan, Predicting the Popularity of Online Serials with Autoregressive Models, In Proceedings of the 23rd ACM International Conference on Information and Knowledge Management (**CIKM 2014**), to appear.
16. Qi Liu, Biao Xiang, Enhong Chen, Hui Xiong, Fangshuang Tang, Jeffrey Xu Yu. Influence Maximization over Large-Scale Social Networks: A Linear Approach with Bound, In Proceedings of the 23rd ACM International Conference on Information and Knowledge Management (**CIKM 2014**), to appear.
17. Xin Jin, Fuzhen Zhuang, Hui Xiong, Changying Du, Ping Luo, Qing He: Multi-task Multi-view Learning for Heterogeneous Tasks, In Proceedings of the 23rd ACM International Conference on Information and Knowledge Management (**CIKM 2014**).
18. Yanjie Fu, Bin Liu, Yong Ge, Zijun Yao, Hui Xiong. User Preference Learning With Multiple Information Fusion For Restaurant Recommendation. In Proceedings of 2014 SIAM International Conference on Data Mining (**SDM 2014**), pp. 470 - 478, Philadelphia, USA, 2014.
19. Bin Liu, Yanjie Fu, Zijun Yao, Hui Xiong. Learning Geographical Preferences for Point-of-Interest Recommendation. In Proceedings of 2013 ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2013**), pp. 1043-1051, 2013.
20. Junjie Wu, Hongfu Liu, Hui Xiong. A Theoretic Framework of K-means-based Consensus Clustering. In Proceedings of 23rd International Joint Conference on Artificial Intelligence (**IJCAI 2013**), Oral Presentation, 2013.
21. Biao Xiang, Qi Liu, Enhong Chen, Hui Xiong, Yi Zheng, PageRank with Priori: An Influence Propagation Perspective. In Proceedings of 23rd International Joint Conference on Artificial Intelligence (**IJCAI 2013**), Oral Presentation, 2013.
22. Hengshu Zhu, Hui Xiong, Yong Ge, Enhong Chen. Ranking Fraud Detection for Mobile Apps: A Holistic View. Proceedings of the 22nd ACM Conference on Information and Knowledge Management (**CIKM 2013**), pp. 619-628, 2013.
23. Bin Liu, Hui Xiong. Point-of-Interest Recommendation in Location Based Social Networks with Topic and Location Awareness. In Proceedings of 2013 SIAM International Conference on Data Mining (**SDM 2013**), pp. 396-404, 2013.

24. Ruilin Liu, Hui (Wendy) Wang, Philippos Mordohai, Hui Xiong. Integrity Verification of K-means Clustering Outsourced to Infrastructure as a Service (IaaS) Providers. In Proceedings of 2013 SIAM International Conference on Data Mining (**SDM 2013**), pp. 632-640, 2013.
25. Chuanren Liu, Hui Xiong, Yong Ge, Wei Geng, Matt Perkins. A Stochastic Model for Context-Aware Anomaly Detection in Indoor Location Traces. the 12th IEEE International Conference on Data Mining (**ICDM 2012**), pp. 449-458, 2012.
26. Hengshu Zhu, Kuifei Yu, Huanhuan Cao, Enhong Chen, Hui Xiong, Jilei Tian, Mining Personal Context-Aware Preferences for Mobile Users, the 12th IEEE Conference on Data Mining (**ICDM 2012**), Brussels, Belgium, 2012, pp. 1212-1217, 2012.
27. Chuanren Liu, Tianming Hu, Yong Ge, and Hui Xiong. Which Distance Metric is Right: An Evolutionary K-Means View. the 2012 SIAM International Conference on Data Mining (**SDM 2012**), pp. 907-918, 2012.
28. Hengshu Zhu, Huanhuan Cao, Enhong Chen, Hui Xiong, Jilei Tian, Exploiting Enriched Contextual Information for Mobile App Classification, The 21th ACM Conference on Information and Knowledge Management (**CIKM 2012**), pp. 1617-1621, 2012
29. Yong Ge, Hui Xiong, Chuanren Liu, and Zhi-Hua Zhou, A Taxi Driving Fraud Detection System, the 11th IEEE International Conference on Data Mining (**ICDM 2011**), pp. 181 - 190, 2011.
30. Qi Liu, Yong Ge, Zhongmou Li, Enhong Chen, Hui Xiong. Personalized Travel Package Recommendation, the 11th IEEE International Conference on Data Mining (**ICDM 2011**), pp. 407 - 416, 2011. **ICDM-2011 Best Research Paper Award**
31. Yong Ge, Qi Liu, Hui Xiong, Alexander Tuzhilin, Jian Chen, Cost-aware Travel Tour Recommendation, the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2011**), pp. 983 - 991, 2011.
32. Chunyu Luo, Hui Xiong, Wenjun Zhou, Yanhong Guo, Guishi Deng, Enhancing Investment Decision in P2P Lending: An Investor Composition Perspective, the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2011**), pp. 292 - 300, 2011.
33. Hengshu Zhu, Huanhuan Cao, Hui Xiong, Enhong Chen, Jilei Tian, Towards Expert Finding by Leveraging Relevant Categories in Authority Ranking, The 20th ACM Conference on Information and Knowledge Management (**CIKM 2011**), pp. 2221 - 2224, Glasgow, 2011
34. Yong Ge, Hui Xiong, Alexander Tuzhilin, Keli Xiao, Marco Gruteser, Michael J. Pazzani, An Energy-Efficient Mobile Recommender System , the 16th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2010**), pp. 899 - 908, 2010.
35. Zhongmou Li, Hui Xiong, Yanchi Liu, Aoying Zhou, Detecting Blackholes and Volcanoes in Directed Networks, the 10th IEEE International Conference on Data Mining (**ICDM 2010**), pp. 294 - 303, 2010.
36. Tengfei Bao, Happia Cao, Enhong Chen, Jilei Tian, and Hui Xiong, An Unsupervised Approach to Modeling Personalized Contexts of Mobile Users, the 10th IEEE International Conference on Data Mining (**ICDM 2010**), pp. 38 - 47, 2010.
37. Yanchi Liu, Zhongmou Li, Hui Xiong, Xuedong Gao, and Junjie Wu, Understanding of Internal Clustering Validation Measures the 10th IEEE International Conference on Data Mining (**ICDM 2010**), pp. 911 - 916, 2010.
38. Yong Ge, Hui Xiong, Zhi-Hua Zhou, Hasan Ozdemir, Jannite Yu, K.C. Lee, TOP-EYE: Top-k Evolving Trajectory Outlier Detection, the 19th ACM Conference on Information and Knowledge Management (**CIKM 2010**), pp. 1733 - 1736, 2010.
39. Qi liu, Enhong Chen, Hui Xiong and Chris Ding, Exploiting User Interests for Collaborative Filtering: Interests Expansion via Personalized Ranking, the 19th ACM Conference on information and Knowledge Management (**CIKM 2010**), pp. 1697 - 1700, 2010.
40. Fuzhen Zhuang, Ping Luo, Zhiyong Shen, Qing He, Zhongzhi Shi, Hui Xiong, Collaborative Dual-PLSA: Mining Distinction and Commonality across Multiple Domains for Text Classification, the

- 19th ACM Conference on Information and Knowledge Management (**CIKM 2010**), pp. 359 - 368,, 2010.
41. Wenjun Zhou, Hui Xiong, Yong Ge, Jannite Yu, Hasan Ozdemir, and K.C.Lee. Direction Clustering for Characterizing Movement Patterns, the 2010 IEEE International Conference on Information Reuse and Integration (**IRI 2010**), pp. 165 - 170, 2010.
 42. Fuzhen Zhuang, Ping Luo, Hui Xiong, Qing He, Yuhong Xiong, Zhongzhi Shi, Exploiting Associations between Word Clusters and Document Classes for Cross-domain Text Categorization, SIAM International Conf. on Data Mining (**SDM 2010**), pp. 13 - 24, 2010.
 43. Jie Yang, Yong Ge, Hui Xiong, Yingying Chen, and Hongbo Liu, Performing Joint Learning for Passive Intrusion Detection in Pervasive Wireless Environments, the 29th IEEE Conference on Computer Communications (**IEEE INFOCOM 2010**), pp. 767 - 775, 2010.
 44. Junjie Wu, Hui Xiong, Jian Chen, Adapting the Right Measures for K-means Clustering, the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2009**), pp. 877 - 886, 2009.
 45. Yong Ge, Hui Xiong, Wenjun Zhou, Ramendra Sahoo, Xiaofeng Gao, Weili Wu, Multi-focal Learning and Its Application to Customer Service Support, the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2009**), pp. 349 - 358, 2009.
 46. Xiaobin Ma, Shashi Shekhar, Hui Xiong, Multi-Type Nearest Neighbor Queries On Spatial-Temporal Road Networks With Time Window Constraints, ACM-GIS 2009 International Symposium on Advances in Geographic Information Systems (**ACM GIS 2009**), pp. 484 - 487, 2009.
 47. Wenjun Zhou, Hui Xiong, Efficient Discovery of Confounders in Large Data Sets, the 2009 IEEE International Conference on Data Mining (**ICDM 2009**), pp. 647-656, 2009.
 48. Huanhuan Cao, Enhong Chen, Jie Yang, Hui Xiong, Enhancing Recommender Systems Under Volatile User Interest Drifts, the 18th ACM Conference on information and Knowledge Management (**CIKM 2009**), pp. 1257-1266, 2009.
 49. Tiejun Qian, Qing Li, Liu Bing, Hui Xiong, Jaideep Srivastava, What's Behind Topic Formation and Development: A Perspective of Community Core Groups, the 18th ACM Conference on information and Knowledge Management (**CIKM 2009**), pp. 1843-1846, 2009.
 50. Wenjun Zhou, Hui Xiong, Volatile Correlation Computation: A Checkpoint View, the 14th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2008**), pp. 848 - 856, 2008. (**Best Student Paper Award Runner-Up**).
 51. Junjie Wu, Hui Xiong, Jian Chen, SAIL: Summation-based Incremental Learning for Information-Theoretic Clustering, the 14th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2008**), pp. 740 - 748, 2008.
 52. Ping Luo, Fuzhen Zhuang, Hui Xiong, Yuhong Xiong, Qing He, Transfer Learning From Multiple Source Domains via Consensus Regularization, ACM 17th Conference on information and Knowledge Management (**ACM CIKM 2008**), pp. 103-112, 2008.
 53. Baik Hoh, Marco Gruteser, Hui Xiong, Ansaf Alrabady, Preserving Privacy in GPS Traces via Uncertainty-Aware Path Cloaking, the 14th ACM Conference on Computer and Communications Security (**ACM CCS 2007**), pp. 161 - 171, 2007.
 54. Junjie Wu, Hui Xiong, Jian Chen, Wenjun Zhou, A Generalization of Proximity Functions for K-means, the 2007 IEEE International Conference on Data Mining (**ICDM 2007**), pp. 361 - 370, 2007.
 55. Yinglung Liang, Yanyong Zhang, Hui Xiong, Ramendra Sahoo, Failure Prediction in IBM BlueGene/L Event Logs, the 2007 IEEE International Conference on Data Mining (**ICDM 2007**), pp. 583 - 588, 2007.
 56. Junjie Wu, Hui Xiong, Wu Peng, Jian Chen, Local Decomposition for Rare Class Analysis, the 13th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2007**), pp. 814 - 823, 2007.

57. Ping Luo, Hui Xiong, Kevin Liu, Zhongzhi Shi, Distributed Classification in Peer-to-Peer Networks, the 13th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2007**), pp. 968 - 976, 2007.
58. Wei Tang, Hui Xiong, Shi Zhong, Jie Wu, Enhancing Semi-Supervised Clustering: A Feature Projection Perspective, submitted to the 13th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2007**), pp. 707 - 716, 2007.
59. Byron J. Gao, Martin Ester, Jin-yi Cai, Oliver Schulte, and Hui Xiong, the Minimum Consistent Subset Cover Problem and its Applications in Data Mining, the 13th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (**KDD 2007**), pp. 310 - 319, 2007.
60. Tianming Hu, Hui Xiong, Sam Y. Sung, Co-Preserving Patterns in Bipartite Partitioning for Topic Identification, in Proceedings of the Seventh SIAM International Conference on Data Mining (**SDM 2007**), pp. 509 - 514, 2007.
61. Dihua Guo, Hui Xiong, Vijay Atluri, Nabil Adam, Semantic Feature Selection for Object Discovery in High-Resolution Remote Sensing Imagery, in Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (**PAKDD 2007**), pp. 71 - 83, 2007.
62. Hui Xiong, Mark Brodie, Sheng Ma, TOP-COP: Mining TOP-K Strongly Correlated Pairs in Large Databases, in Proceedings of the 2006 IEEE International Conference on Data Mining (**ICDM 2006**), pp. 1162-1166, 2006.
63. Hui Xiong, Junjie Wu, Jian Chen, K-means Clustering versus Validation Measures: A Data Distribution Perspective, in Proceedings of the 12th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2006**), pp. 779-784, 2006.
64. Xiaobin Ma, Shashi Shekhar, Hui Xiong, Pusheng Zhang, Exploiting Page-Level Upper Bound for Multi-Type Nearest Neighbor Queries, in Proceedings of the Int'l Symposium on Advances in Geographic Information Systems (**ACM GIS 2006**), pp. 179 - 186, 2006.
65. Aabhas Paliwal, Nabil Adam, and Hui Xiong, Web Service Discovery via Semantic Association Ranking and Hyperclique Pattern Discovery, in Proceedings of the 2006 IEEE/WIC/ACM International Conference on Web Intelligence (**WI 2006**), pp. 649-652, 2006.
66. Tiejun Qian, Hui Xiong, Yuanzhen Wang, Enhong Chen, Adapting Association Patterns for Text Categorization: Weakness and enhancements, in Proceedings of the ACM Conference on information and Knowledge Management (**ACM CIKM 2006**), pp. 782 - 783, 2006.
67. Gyorgy Simon, Hui Xiong, Eric Eilertson, and Vipin Kumar, Scan Detection: A Data Mining Approach, in Proceedings of the Sixth SIAM International Conference on Data Mining (**SDM 2006**), pp. 118 - 129, 2006.
68. Hui Xiong, Michael Steinbach, and Vipin Kumar, Privacy Leakage in Multi-relational Databases via Pattern based Semi-supervised Learning, in Proceedings of the ACM International Conf. on information and Knowledge Management (**ACM CIKM 2005**), pp. 355-356, 2005.
69. Hui Xiong, Xiaofeng He, Chris Ding, Ya Zhang, Vipin Kumar, Stephen R. Holbrook, Identification of Functional Modules in Protein Complexes via Hyperclique Pattern Discovery, in Proceedings of the Pacific Symposium on Biocomputing (**PSB 2005**), 2005.
70. Hui Xiong, Shashi Shekhar, Pang-Ning Tan, and Vipin Kumar, Exploiting a Support-based Upper Bound of Pearson's Correlation Coefficient for Efficiently Identifying Strongly Correlated Pairs, in Proceedings of the Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2004**), pp. 334 - 343, Seattle, USA, 2004.
71. Jieping Ye, Qi Li, Hui Xiong, Haesun Park, Ravi Janardan, Vipin Kumar. IDR/QR: An Incremental Dimension Reduction Algorithm via QR Decomposition, in Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2004**), pp. 364 - 373, Seattle, USA, 2004.

72. Michael Steinbach, Pang-Ning Tan, Hui Xiong, Vipin Kumar, Generalizing the Notion of Support, in Proceedings of the Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2004**), pp. 689 - 694, Seattle, USA, 2004.
73. Hui Xiong, Michael Steinbach, Pang-Ning Tan, and Vipin Kumar, HICAP: Hierarchical Clustering with Pattern Preservation, in Proceedings of the 2004 SIAM International Conference on Data Mining (**SDM 2004**), pp. 279 - 290, Florida, USA, 2004.
74. Hui Xiong, Shashi Shekhar, Yan Huang, Vipin Kumar, Xiaobin Ma, Jin-Soung Yoo, A Framework for Discovering Co-location Patterns in Data Sets with Extended Spatial Objects, in Proceedings of the 2004 SIAM International Conference on Data Mining (**SDM 2004**), pp. 78 - 89, Florida, USA, 2004.
75. Hui Xiong, Pang-Ning Tan, and Vipin Kumar, Mining Strong Affinity Association Patterns in Data Sets with Skewed Support Distribution, In Proceedings of the Third IEEE International Conference on Data Mining (**ICDM 2003**), pp. 387-394, Florida, USA, 2003.

Magazine Articles

1. Xiaojun Quan, Liu Wenyin, Wenyu Dou, Hui Xiong, Yong Ge, "Link Graph Analysis for Business Site Selection", Vol. 45, No. 3, pp. 64 - 69, **IEEE Computer**, 2012.
2. Baik Hoh, Marco Gruteser, Hui Xiong, Ansaif Alrabady, Enhancing Security and Privacy in Traffic-Monitoring Systems, **IEEE Pervasive Computing**, vol. 5, no. 4, pp. 38-46, October - December, 2006.

System Demo

1. Yong Ge, Chuanren Liu, Hui Xiong, A Taxi Business Intelligence System, accepted by the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2011), pp. 735 - 738, 2011.

Book Chapters

1. Hui Xiong, Zhongmou Li: Clustering Validation Measures. Data Clustering: Algorithms and Applications, pp. 571-606, 2013.
2. Hui Xiong, Pang-Ning Tan, Vipin Kumar, Wenjun Zhou, Mining Hyperclique Patterns: A Summary of Results, Data Mining Patterns: New Methods and Applications, Pascal Poncelet, Maguelonne Teisseire, Florent Masseglia (Eds), ISBN: 978-159904162-9, pp. 57 - 84, Information Science Reference, 2007.
3. Hui Xiong, Michael Steinbach, Vipin Kumar, Wenjun Zhou, Pattern Preserving Clustering, Encyclopedia of Data Warehousing and Mining, Idea Group Inc., 2007.

RESEARCH GRANTS

- Principal Investigator, "Enhancing the Capacity for Information Assurance Education Through Interdisciplinary Collaboration", National Science Foundation (NSF), \$292,670.00, 2012 - 2014.
- Principal Investigator, "Sequential Recommender Systems in Mobile and Pervasive Environments", National Science Foundation (NSF), \$74,907.00, 2012 - 2014.
- Principal Investigator, "Network Data Analytics for New Business Opportunities/Monetization", Futurewei Technologies Inc., \$20,000.00, 2012 - 2014.
- Principal Investigator, "A Stochastic Model for Context-Aware Outlier Detection in Indoor Location Traces", AwarePoint Inc., \$37,500.00, 2012 - 2014.
- Principal Investigator, "Health Asset Management", AwarePoint Inc., \$12,500.00, 2011 - 2012.
- Principal Investigator, "NeTSE:Small:Collaborative Research: MILAN: Multi-Modal Passive Intrusion Learning in Pervasive Wireless Environments", National Science Foundation (NSF), \$260,219.00, 2010 - 2014.
- Co-Principal Investigator, "Phase I: I/UCRC: Center for Dynamic Data Analytics (CDDA)", National Science Foundation (NSF), Continuing Grant, Awarded amount to Date: \$391,100.00, 2011 - 2016.

- Principal Investigator, “Extracting Energy-Efficient Transportation Patterns from Location Traces”, Rutgers Seed Funding for Collaborative Computing Research - Green Computing Initiative, \$40,000.00, 2009 - 2010.
- Co-Principal Investigator, “Planning Grant: I/UCRC for Dynamic Data Analytics”, National Science Foundation (NSF), \$10,000.00, 2009 - 2010. (PI: Dimitris Metaxas)
- Principal Investigator, “Evolving Anomaly Detection for Incidence Management”, Panasonic Inc., \$50,000.00, 2009.
- Principal Investigator, “Exploiting Location Sensing Data for Characterizing Movement Patterns”, IBM Exploratory Stream Analytics Innovation Award, \$20,000.00, 2008.
- Co-Principal Investigator, “CT-ISG: ROME: Robust Measurement in Sensor Networks”, National Science Foundation (NSF), \$400,000.00, 2008 - 2011. (PI: Yanyong Zhang)
- Principal Investigator, “Mobile Web Usage Profiling for System Performance Tuning”, Rutgers Seed Funding for Collaborative Computing Research, \$50,000.00, 2008 - 2010.
- Principal Investigator, “A Collaborative Research Study of Data Mining in Mobile Computing”, Rutgers Vice President for Research and Graduate and Professional Education, \$60,000.00, 2007 - 2010.
- Principal Investigator, RBS Research Resources Committee Grant, \$4,500.00, Rutgers Business School, July 2008 - June 2009.
- Co-Principal Investigator, “Center of Excellence for Cyber-Security and Information Assurance (CSIA)”, 2007-2008 Rutgers Academic Excellence Fund (AEF) Award, \$75,000.00. (PI: W. Art Chaovalitwongse)
- Co-Principal Investigator, “Service-oriented architectures supporting Networks Of Public Security - SoCNOS,” The German Ministry for Education and Research, \$566,000.00, 2007-2009. (PI: Nabil Adam)
- Co-Principal Investigator, “Information Technology for Emergency Management (iTeam)”, 2007-2008 Rutgers Academic Excellence Fund (AEF) Award, \$40,000.00. (PI: Nabil Adam)
- Principal Investigator, RBS Research Resources Committee Grant, \$4,200.00, Rutgers Business School, July 2007 - June 2008.
- Co-Principal Investigator, “Improving Business Knowledge Management and Analysis Through the use of the RFID Technology and Semantic Web Services,” SAP Research Labs, \$100,000.00, 2006-2007, (PI: Nabil Adam).

DEPARTMENTAL/UNIVERSITY SERVICE

- **Vice Chair**, MSIS Department, 2011 - 2014, 2015 - Present
- **Director**, Rutgers Center for Information Assurance, 2011 - Present.
- **Program Coordinator**, the Master of Information Technology, Rutgers Business School
- **Ph.D. IT Coordinator**, Rutgers Business School, 2011 - Present.
- **Member**, Undergraduate Program Policy Committee, Rutgers Business School, 2008-2009.
- **Member**, Research Resource Committee, January 2010 - 2011.

MEDIA HIGHLIGHTS

- **Interviewed and Quoted by Star Ledger** regarding Rutgers Information Systems, 2010.
- **Interviewed and Quoted by Forbes** in the article “The Ethics of Big Data”, 2014.

PROFESSIONAL ACTIVITIES

Professional Affiliations

- ACM Distinguished Scientist
- IEEE Senior Member

Journal Editorship

- **Associate Editor**, *IEEE Transactions on Data and Knowledge Engineering (TKDE)*, 2013 - Present.
- **Associate Editor**, *ACM Transactions on Management Information Systems (TMIS)*, 2015 - Present.
- **Associate Editor**, *the Knowledge and Information Systems Journal (KAIS)*, 2007 - Present.
- **Special Issue Editor**, *ACM Transactions on Intelligent Systems and Technology*, Special Issue on Intelligent Mobile Knowledge Discovery and Management Systems
- **Special Issue Editor**, *World Wide Web Journal: Special Issue on Web Information Management in the Big Data Era*, 2013.
- **Guest Editor**, *the Knowledge and Information Systems Journal (KAIS) Special Issue on Context-Aware Data Mining*, 2009.
- **Editorial Board Member**, *Journal of Big Data*, Springer.

Conference Organizers

- General Co-Chair, *IEEE Int'l Conference on Data Mining (ICDM)*, 2015.
- Tutorial Co-Chair, *IEEE Int'l Conference on Data Mining (ICDM)*, 2014.
- Sponsorship Chair, *the 2014 SIAM International Conference on Data Mining (SDM)*, 2014.
- Program Committee Chair, *IEEE Int'l Conference on Data Mining (ICDM)*, 2013.
- Program Committee Chair, *The 14th International Conference on Web-Age Information Management (WAIM)*, 2013.
- Exhibits and Demos Co-Chair, *19th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2013.
- Industry and Government Track Co-Chair, *the 18th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2012.
- Program Committee Vice Chair, *IEEE Int'l Conference on Data Mining (ICDM)*, 2012.
- General Chair, *National Database Conference of China (NDBC)*, 2012
- Tutorial Chair, *The 2012 IEEE/WIC/ACM International Conference on Web Intelligence (WI)*, 2012.
- Finance Chair, *the 28th IEEE International Conference on Data Engineering (ICDE)*, 2012.
- Program Committee Chair, *the 5th International Conference on Knowledge Science, Engineering & Management (KSEM)*, 2011.
- Exhibits and Demos Co-Chair, *17th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2011.
- Program Committee Vice Chair, *the IEEE/WIC/ACM Int'l Conf. on Web Intelligence (WI)*, 2011.
- Tutorial Chair, *the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, 2011.
- Program Committee Vice Chair, *the Tenth IEEE International Conference on Data Mining (ICDM)*, 2010.
- Session Chair, *the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, 2010.
- Program Committee Chair, *the Workshop on Secure Knowledge Management (SKM 2010)*.
- Program Committee Chair, *the 1st International Conference on Networking and Distributed Computing*, 2010.

- Program Committee Vice Chair, The 2010 IEEE/WIC/ACM International Conference on Web Intelligence (WI-10).
- Publicity Chair, the 2010 NASA's Conference on Intelligent Data Understanding (CIDU'01), 2010.
- Publication Chair, the Tenth SIAM International Conference on Data Mining (SDM), 2010.
- Session Chair, the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2009.
- Session Chair, Pervasive Data Mining Session at INFORMS 2009 Annual Meeting, 2009.
- Publicity Chair, the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2009.
- Co-Chair, the Second International Workshop on Semantic Aspects in Data Mining (SADM'09) In conjunction with the 2009 IEEE International Conference on Data Mining (ICDM), 2009.
- Session Chair, the 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2008.
- Co-Chair, the First International Workshop on Semantic Aspects in Data Mining (SADM'08) In conjunction with the 2008 IEEE International Conference on Data Mining (ICDM), 2008.
- Track Chair, "Data Mining in Business" in conjunction with the IEEE Symposium on Advanced Management of Information for Globalized Enterprises (AMIGE), 2008.
- Session Chair, the Seventh IEEE International Conference on Data Mining (ICDM), 2007.
- Session Chair, the 13th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2007.
- Session Chair for Learning, the Seventh SIAM Int'l Conf. on Data Mining (SDM), 2007.
- Publicity Chair, the Seventh SIAM International Conf. on Data Mining (SDM), 2007.
- Awards Chair, the Sixth International Conference on Machine Learning and Applications (ICMLA), 2007.
- Session Chair for Pattern Mining, the Sixth SIAM Int'l Conf. on Data Mining (SDM), 2006.
- Program Committee Vice Chair, the 18th IEEE Int'l Conf. on Tools with Artificial Intelligence (ICTAI), 2006.
- Publicity Chair, the Sixth IEEE International Conference on Data Mining (ICDM), 2006.
- Special Sessions and Tutorials Chair, The Fifth International Conference on Machine Learning and Applications (ICMLA), 2006.
- Publicity Chair, the IEEE/WIC/ACM Int'l Conf. on Web Intelligence (WI), 2006.
- Publicity Chair, the IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT), 2006.
- Program Committee Vice Chair, the Ninth Pacific Rim International Conference on Artificial Intelligence (PRICAI), 2006

Research Proposal Review

- **NSF Panelists** in the Information and Intelligent Systems Division, 2006, 2009, 2011, 2012, 2014.
- **NSF External Reviewer**, 2007, 2011, 2014.
- **External Reviewer**, Hongkong Research Grants Council, 2013, 2014.
- **IEEE Senior Member Review Panelist**, 2011.
- **External Reviewer**, IWT.Flemish government Agency for Innovation by Science and Technology, 2011.
- **External Reviewer**, The Natural Sciences and Engineering Research Council of Canada (NSERC), 2009, 2011.
- **External Reviewer**, Nanyang Technological University, Singapore, 2009, 2014.

Senior Program Committees

- 2015, the ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2015, the ACM International Conference on Web Search and Data Mining (WSDM).
- 2015, the SIAM International Conference on Data Mining (SDM).
- 2014, the 20th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2014, the ACM International Conference on Web Search and Data Mining (WSDM).
- 2014, the 2014 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)
- 2014, the 18th Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2013, the 22nd ACM Conference on Information and Knowledge Management (CIKM).
- 2010, the 16th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2013, the 17th Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD).

Program Committees

- 2014, the AAAI Conference on Artificial Intelligence (AAAI).
- 2014, The IEEE International Conference on Data Mining (ICDM)
- 2014, the 23rd International World Wide Web Conference (WWW).
- 2013, the 22nd International World Wide Web Conference (WWW).
- 2013, the 19th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2013, the 12th SIAM International Conference on Data Mining (SDM).
- 2013, the IEEE 28th International Conference on Data Engineering (ICDE).
- 2013, the Sixth ACM International Conference on Web Search and Data Mining (WSDM).
- 2013, the 22nd International World Wide Web Conference (WWW).
- 2012, the 18th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2012, the 11th SIAM International Conference on Data Mining (SDM).
- 2012, the 2012 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM).
- 2011, the 17th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2011, the Tenth SIAM International Conference on Data Mining (SDM).
- 2011, the Twenty-second International Joint Conference on Artificial Intelligence (IJCAI).
- 2010, the 11th ACM Conference on Electronic Commerce (SIGECOM)
- 2010, the IEEE 26th International Conference on Data Engineering (ICDE).
- 2010, the Ninth SIAM International Conference on Data Mining (SDM).
- 2010, the 19th ACM Conference on Information and Knowledge Management (CIKM).
- 2010, the 11th annual International Digital Government Research Conference (DG.O).
- 2009, the 26th International Conference on Machine Learning (ICML)
- 2009, the 15th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2009, The IEEE International Conference on Data Mining (ICDM)
- 2009, the 18th ACM Conference on Information and Knowledge Management (CIKM).
- 2009, the Ninth SIAM International Conference on Data Mining (SDM).
- 2009, the 12th International Conference on Business Information Systems (BIS).
- 2008, the 14th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2008, the Twenty-Third AAAI Conference on Artificial Intelligence (AAAI).

- 2008, the Eighth SIAM International Conference on Data Mining (SDM).
- 2008, The Eighth IEEE International Conference on Data Mining (ICDM).
- 2008, the 17th ACM Conference on Information and Knowledge Management (CIKM).
- 2007, the 13th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2007, the Seventh SIAM International Conference on Data Mining (SDM).
- 2007, the IEEE 23rd International Conference on Data Engineering (ICDE).
- 2007, The Seventh IEEE International Conference on Data Mining (ICDM).
- 2007, the 16th ACM Conference on Information and Knowledge Management (CIKM).
- 2006, the 6th IEEE International Conference on Data Mining (ICDM).
- 2006, the 12th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2006, the 15th ACM Conference on Information and Knowledge Management (CIKM).
- 2006, the Sixth SIAM International Conference on Data Mining (SDM).

Tutorials

- Knowledge Discovery in Data, Sponsored by Vice President for Research, Rutgers, the State University of New Jersey, November 2007.

Talks

- Big Data Analytics in Business Environments, Bell Labs, 2014
- Big Data Analytics in Business Environments, Keynote Talk, the 8th Workshop on Social Network Mining and Analysis for Business, Consumer and Social Insights, SNA KDD 2014.
- Temporal Skeletonization on Sequential Data: Patterns, Categorization, and Visualization, Nanjing University, 2014.
- Big Data Analytics in Business Environments, Keynote Talk, the 5th China Conference on Data Mining, 2014.
- Big Data Analytics in Mobile Social Environments, Tsinghua University, 2013.
- Big Data Analytics in Mobile Environments, Keynote Talk, the 29th National Database Conference of China, 2012.
- What's Special about Mobile Recommender System, University of Minnesota, Arizona State University, Tsinghua University, 2011.
- Towards the Next Generation of Mobile Recommender Systems, Temple University, University of Science and Technology of China, 2010.
- The Preparedness of an Early Academic Life, Beihang University, 2010.
- Financial Fraud Detection with Data Mining Techniques, the International Conference on E-business and E-government, Keynote Talk, 2010.
- Efficient Discovery of Confounders in Large Data Sets, Tsinghua University, University of Science and Technology of China (USTC), 2010.
- Financial Fraud Detection and Prevention with Data Mining Techniques, New Jersey Institute Technology, 2010.
- Financial Fraud Detection and Prevention with Data Mining Techniques, Tsinghua University, Beihang University, University of Science and Technology of China, Syracuse University, 2009.
- SAIL: Summation-based Incremental Learning for Information-Theoretic Clustering, the 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2008), Las Vegas, USA, 2008.
- COG: Local Decomposition for Rare Class Analysis, Fudan University, University of Science and Technology of China, China, 2008.

- A Generalization of Proximity Functions for K-means, the Seventh IEEE International Conference on Data Mining (ICDM-2007), Omaha, NE, USA, 2007.
- Failure Prediction in IBM BlueGene/L Event Logs, the Seventh IEEE International Conference on Data Mining (ICDM-2007), Omaha, NE, USA, 2007.
- TOP-K Phi Correlation Computation, Fudan University, Tsinghua University, the Chinese Academy of Sciences, the Hong Kong Polytechnic University, University of Science and Technology of China, and Sun Yat-sen University, 2007.
- The Road to A Ph.D., the Chinese Academy of Sciences, University of Science and Technology of China, Fudan University, 2007.
- Association Pattern Discovery: A Statistical Computing Perspective, Virginia Tech, Washington University, University of Texas at Dallas, and George Washington University, invited talks, 2006.
- Identification of Functional Modules in Protein Complexes via Hyperclique Pattern Discovery, the Pacific Symposium on Biocomputing, (PSB 2005), USA, 2005.
- Exploiting a Support-based Upper Bound of Pearson's Correlation Coefficient for Efficiently Identifying Strongly Correlated Pairs, the Tenth ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD 2004), Seattle, USA, 2004.
- Hyperclique Pattern Discovery and Its Application to Protein Functional Module Extraction, Lawrence Berkeley National Laboratory (LBL), CA, USA, July 2004.
- HICAP: Hierarchical Clustering with Pattern Preservation, the Fourth SIAM International Conference on Data Mining (SDM), Lake Buena Vista, Florida, USA, April 2004.
- A Framework for Discovering Co-location Patterns in Data Sets with Extended Spatial Objects, the Fourth SIAM Int'l Conf. on Data Mining (SDM), Florida, USA, April 2004.

Journal Review

- Artificial Intelligence
- Annals of Operations Research (ANOR)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Multimedia
- IEEE Transactions on Systems, Man and Cybernetics - Part B
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- Data Mining and Knowledge Discovery Journal
- Geoinformatica
- The VLDB Journal
- ACM Transactions on Information Systems (TOIS)
- IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)
- ACM Transactions on Knowledge Discovery in Data (TKDD)
- ACM Transactions on Database Systems (TODS)
- ACM Journal of Data and Information Quality