Dr. Hui Xiong

AI Thrust
The Hong Kong University of Science and Technology (Guangzhou)

Phone: 001-732-692-9348
Email: xionghui@ust.hk

RESEARCH INTERESTS
Artificial Intelligence, Data Mining, Mobile Computing

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 SIGKDD Service Award, 2023
- AAAI Best Paper Award (selected from more than 9000 submissions), 2021
- AAAS Fellow, 2020
- IEEE Fellow, 2020
- The Ram Charan Management Practice Award as the Grand Prix winner, the Harvard Business Review, 2018
- IEEE ICDM Outstanding Service Award, 2017.
- RBS Dean's Research Professor, 2016
- ACM Distinguished Scientist, 2014.
- 2011 IEEE ICDM Best Research Paper Award for the paper "Personalized Travel Package Recommendation", published at IEEE International Conf. on Data Mining (1 out of 786 submissions), 2011.
- Rutgers University Board of Trustees Research Fellowship for Scholarly Excellence, 2009.
- Junior Faculty Teaching Excellence Award (One Per School), Rutgers Business School, 2007.

PROFESSIONAL EXPERIENCE

Associate Vice President for Knowledge Transfer
The Hong Kong University of Science and Technology (Guangzhou) **April 2023 - Present**

Chair Professor/Head, AI Thrust
The Hong Kong University of Science and Technology (Guangzhou) **July 2021 - Present**

Distinguished Professor, Management Science and Information Systems Department
Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **2021**

RBS Dean's Research Professor
Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **2016 - 2021**

Professor, Management Science and Information Systems Department
Rutgers Business School - Newark and New Brunswick
Rutgers, the State University of New Jersey, **2014 - 2021**

Chief Scientist (Smart City), Deputy Dean of Baidu Research Institute
Baidu Inc., January 2018 - December 2019.

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**, **January 2015 - December 2017**

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, **2011 - 2021**

Member of DIMACS
Rutgers, the State University of New Jersey, **2009 - 2021.**

Faculty Associate, Wireless Information Network Laboratory (WINLAB)
Rutgers, the State University of New Jersey, **2007 - 2021**

Affiliated Faculty Member, Department of Computer Science
Rutgers, the State University of New Jersey, **Present**

TEACHING
PhD Students
- Qian Sun, Weiyu Guo, Hao Wu, Fuling Wang, He Zhang, Kevin Zhang, Weijia Zhang, Jindong Han, Haoran Xin, Wenzhao Jiang, Jing Li, Zheng Gong, Lu Dai, Shiya Zeng, Kaicheng Zhang, Yunfan Lu, Hang Ni, Yang Ji
- Zixuan Yuan (PhD in IT, 2023, **Assistant Professor, The Hong Kong University of Science and Technology (Guangzhou)**)
- Denghui Zhang (PhD in IT, 2023, **Assistant Professor, Stevens Institute of Technology**)
- Qi Zhang (PhD in CS, 2023, **Data Scientist, Shanghai AI Lab**)
- Dazhong Shen (PhD in CS, 2023, **Data Scientist, Shanghai AI Lab**)
- Chao Wang (PhD in CS, 2022, **Post-doctor, Guangzhou HKUST FYTRI**)
- Le Zhang (PhD in CS, 2022, **Data Scientist, Baidu**)
- Mingfei Teng (PhD in IT, 2021, **Applied Data Scientist, Amazon**)
- Chuan Qin (PhD in CS, 2021, **Data Scientist, BOSS Zhipin**)
- Qingxin Meng (PhD in IT, 2020, **Assistant Professor, the University of Nottingham, Ningbo)**
- Farid Razzak (PhD in IT, 2020, **Data Scientist, Securities and Exchange Commission (SEC)**)
- Junming Liu (PhD in IT, 2019, **Assistant Professor, the City University of Hong Kong**)
- Hao Zhong (PhD in IT, 2019, **Assistant Professor, ESCP Business School - Paris**)
- Yanchi Liu (PhD in IT, 2019, **Senior Research Staff, NEC Labs America**)
- Jingyuan Yang (PhD in IT, 2018, **Assistant Professor, George Mason University**)
- Constantine Vitt (PhD in IT, 2018, **Vice President of Data Science at Relay Delivery**)

- Zijun Yao (PhD in IT, 2018, **IBM Research**)

- Meng Qu (PhD in IT, 2017, **Assistant Professor of Practice, Rutgers University**)

- Bin Liu (PhD in IT, 2016, **Assistant Professor, West Virginia University**)

- Yanjie Fu (PhD in IT, 2016, **Assistant Professor, University of Central Florida**), the recipient of the NSF Career Award

- Chuanren Liu (PhD in IT, 2015, **Associate Professor with tenure, University of Tennessee - Knoxville**)

- Zhongmou Li (PhD in IT, 2015, **Data Scientist, Meta**)

- Yong Ge (PhD in IT, 2013, **Associate Professor with tenure, University of Arizona - Tucson**), the recipient of the NSF Career Award

- Keli Xiao (PhD in Finance, 2013, co-supervised with Professor Yangru Wu, **Associate Professor with tenure, Stony Brook University**)

- Wenjun Zhou (PhD in IT, 2011, **Professor with tenure, University of Tennessee - Knoxville**), the recipient of ACM SIGKDD Doctoral Dissertation Award Honorable Mention

Courses Taught
- "Foundations of Data Mining (AI 5030)",
Fall 2023, The Hong Kong University of Science and Technology (Guangzhou)

- "Cross-disciplinary Research Methods", Fall 2023

- "Cross-disciplinary Research Methods", Spring 2023

- "Foundations of Data Mining (AI 5030)", Teaching Evaluation: 4.9 out of 5
Fall 2022, The Hong Kong University of Science and Technology (Guangzhou)

- The doctor of business administration (DBA) Course: "Data Mining and Business Intelligence (22:135:703)"
Spring 2021

- Graduate Course: "Data Mining (26:198:644)"
Fall 2006, Spring 2009, Spring 2011, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Fall 2020, Spring 2021

- 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 PUBLICATIONS (H-index: 87)[1]

Books
1. Fuzhen Zhuang, Yongchun Zhu, Hengshu Zhu, Hui Xiong, Transfer Learning Algorithms Applications and Practices, ISBN: 9787111726500, China Machine Press, 2023.

2. Shashi Shekhar, Hui Xiong, and Xun Zhou (Editor-in-Chiefs), Encyclopedia of GIS, ISBN-13: 978-3319178844, ISBN-10: 3319178849, Springer; 2 edition, 2017.

3. My T. Thai, Weili Wu and Hui Xiong, Big Data in Complex and Social Networks (Chapman & Hall/CRC Big Data Series) . ISBN-10: 1498726844, ISBN-13: 978-1498726849, November, 2016.

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

4. 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**, Springer).

5. Weili Wu, Hui Xiong, Shashi Shekhar (Eds.). Clustering and Information Retrieval, ISBN: 1-4020-7682-7, Kluwer Academic Publishers, 2003.

Journal Papers

1. Shuangli Li, Jingbo Zhou, Tong Xu, Liang Huang, Fan Wang, Haoyi Xiong, Weili Huang, Dejing Dou, and Hui Xiong. GIANT: Protein-Ligand Binding Affinity Prediction via Geometry-aware Interactive Graph Neural Network, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2023.

2. Haoyi Zhou, Jianxin Li, Shanghang Zhang, Shuai Zhang, Mengyi Yan, Hui Xiong,Expanding the Prediction Capacity in Long Sequence Time-Series Forecasting, Artificial Intelligence Journal, 2023.

3. Dongjie Wang, Pengyang Wang, Yanjie Fu, Kunpeng Liu, Hui Xiong, and Charles E. Hughes, Reinforced imitative graph learning for mobile user profiling,IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**),2023.

4. Chao Wang, Hengshu Zhu, Chen Zhu, Chuan Qin, Hui Xiong. SetRank: A Setwise Bayesian Approach for Collaborative Ranking in Recommender System. ACM Transactions on Information Systems **(TOIS)**, 2023.

5. Weiyu Guo, Ning Jiang, Dario Farina, Jiangyong Su, Zheng Wang, Chuang Liu, and Hui Xiong,Multi-Attention Feature Fusion Network for Accurate Estimation of Finger Kinematics From Surface Electromyographic Signals,IEEE Transactions on Human-Machine Systems,2023.

6. Ziyue Qiao, Pengyang Wang, Pengfei Wang, Zhiyuan Ning, Yanjie Fu, Yi Du, Yuanchun Zhou, Jianqiang Huang, Zian-Sheng Hua, and Hui Xiong, A Dual-Channel Semi-Supervised Learning Framework on Graphs via Knowledge Transfer and Meta-Learning, ACM Transactions on the Web,2023

7. Hao Liu, Jindong Han, Yanjie Fu, Yanyan Li, Kai Chen, and Hui Xiong,Unified route representation learning for multi-modal transportation recommendation with spatiotemporal pre-training,The VLDB Journal (**IEEE VLDB**), 32, no.2,2023.

8. Wenwen Qiang, Jiangmeng Li, Bing Su, Jianlong Fu, Hui, Xiong, and Ji-Rong, Wen., Meta attention-generation network for cross-granularity few-shot learning,International Journal of Computer Vision,2023

9. Hao Liu, Qingyu Guo, Hengshu Zhu, Yanjie Fu, Xiaojuan Ma, and Hui Xiong,Characterizing and Forecasting Urban Vibrancy Evolution: A Multi-View Graph Mining Perspective.,ACM Transactions on Knowledge Discovery from Data (**TKDD**), 1-24,2023.

10. Meng Xiao, Ziyue Qiao, Yanjie Fu, Hao Dong, Yi Du, Pengyang Wang, Hui Xiong, and Yuanchun Zhou,Hierarchical interdisciplinary topic detection model for research proposal classification.,IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**),2023.

11. Jindong, Han, Hao Liu, Hengshu Zhu, and Hui Xiong, Kill Two Birds with One Stone: A Multi-View Multi-Adversarial Learning Approach for Joint Air Quality and Weather Prediction,IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**),2023.

12. Chuang Qin, Hengshu Zhu, Dazhong Shen, Ying Sun, Kaichun Yao, Peng Wang, and Hui Xiong,Automatic Skill-oriented Question Generation and Recommendation for Intelligent Job Interviews,ACM Transactions on Information Systems (**TOIS**),2023.

13. Honeke Zhao, Chuang Zhao, Xi Zhang, Nanlin Liu, Hengshu Zhu, Qi Liu, and Hui Xiong,An Ensemble Learning Approach with Gradient Resampling for Class-Imbalance Problems,INFORMS Journal on Computing (**IJOC**),2023.

14. Niu, Hongting, Y Sun, H Zhu, C Geng, J Yang, H Xiong. Exploring the tidal effect of urban business district with large-scale human mobility data, Frontiers of Computer Science, 2023.

15. Gao, Xiaonan; Wu, Sen; Xia, Dawen; Xiong, Hui. Topic-sensitive expert finding based solely on heterogeneous academic networks, Expert Systems with Applications, 2023.

16. Xu, Yuanbo; Wang, En; Yang, Yongjian; Xiong, Hui. GS ^{2}-RS: A Generative Approach for Alleviating Cold start and Filter bubbles in Recommender Systems, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2023.

17. Shen, Dazhong; Zhu, Hengshu; Xiao, Keli; Zhang, Xi; Xiong, Hui. Exploiting Connections among Personality, Job Position, and Work Behavior: Evidence from Joint Bayesian Learning, ACM Transactions on Management Information Systems (**TMIS**), 2023.

18. Yuyang Xu, Haochao Ying, Siyi Qian, Fuzhen Zhuang, Xiao Zhang, Deqing Wang, Jian Wu, and Hui Xiong. Time-aware Context-Gated Graph Attention Network for Clinical Risk Prediction, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

19. Hao Liu, Jindong Han, Yanjie Fu, Yanyan Li, Kai Chen, and Hui Xiong. Unified Route Representation Learning for Multi-Modal Transportation Recommendation with Spatiotemporal Pre-Training, **VLDB Journal**, 2022.

20. Weijia Zhang, Hao Liu, Tong Xu, Fan Wang, Haoran Xin, Hua Wu, and Hui Xiong. RLCharge: Imitative Multi-Agent Spatiotemporal Reinforcement Learning for Electric Vehicle Charging Station Recommendation, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

21. Chuan Qin, Kaichun Yao, Hengshu Zhu, Tong Xu, Dazhong Shen, Enhong Chen, and Hui Xiong. Towards Automatic Job Description Generation with Capability-Aware Neural Networks, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

22. Le Yu, Leilei Sun, Bowen Du, Chuanren Liu, Weifeng Lv, and Hui Xiong. Heterogeneous Graph Representation Learning with Relation Awareness, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

23. Hao Liu, Ying Li, Yanjie Fu, Huaibo Mei, and Hui Xiong. Polestar++: An Intelligent Routing Engine for National-Wide Public Transportation, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

24. Zeming Liu, Ding Zhou, Hao Liu, Haifeng Wang, Zheng-Yu Niu, Hua Wu, Wanxiang Che, Ting Liu, and Hui Xiong. Graph-Grounded Goal Planning for Conversational Recommendation, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

25. Yuyang Ye, Zheng Dong, Hengshu Zhu, Tong Xu, Xin Song, Runlong Yu, and Hui Xiong. MANE: Organizational Network Embedding with Multiplex Attentive Neural Networks, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

26. Qingxin Meng, Keli Xiao, Dazhong Shen, Hengshu Zhu, and Hui Xiong. Fine-Grained Job Salary Benchmarking with a Nonparametric Dirichlet-process-based Latent Factor Model, INFORMS Journal on Computing (**IJOC**), 2022.

27. Liu, Junming, M Teng, W Chen, H Xiong. A cost-effective sequential route recommender system for taxi drivers, INFORMS Journal on Computing (**IJOC**), 2022.

28. Menglin, Yang, Min, Zhou, Hui, Xiong, and Irwin, King. Hyperbolic Temporal Network Embedding, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

29. Kun Yuan, Guannan, Liu, Junjie, Wu, and Hui, Xiong. Semantic and Structural View Fusion Modeling for Social Recommendation, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

30. Yuqi, Bai, Yutong, Zhang, Qlena Zotova, Helen, Pineo, Jose, Siri, Lu, Liang, Xiangyu, Luo, Mei-Po Kwan, John Ji. Xiaopeng Jiang, Cordia Chu, Na Cong, Vivian Lin, William Summerskill, Yong Luo, Hongjun Yu, Tinghai Wu, Changhong Yang, Jing Li, Yixiong Xiao, Jingbo Zhou, Dejing Dou, Hui Xiong, Lee Ligang Zhang, Lan Wang, Shu Tao, Bojie Fu, Yong Zhang, Bing Xu, Jun Yang. Healthy cities initiative in China: Progress, challenges, and the way forward, The Lancet Regional Health-Western Pacific, 2022.

31. Zhe, Zhang, Hui, Xiong, Tong, Xu, Chuan, Qin, Le, Zhang, and, Enhong, Chen. Complex Attributed Network Embedding for medical complication prediction, Knowledge and Information Systems, 2022.

32. Jiangmeng, Li, Wenwen, Qiang, Changwen, Zhang, Bing,Su, Ji-Rong Wen, and Hui, Xiong. Modeling multiple views via implicitly preserving global consistency and local complementarity, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

33. NengJun, Zhu, Jian, Cao, XinJiang, Lu, ChuanRen, Liu, YanYan, Li, XiangFeng, Luo, and Hui, Xiong. Predicting a Persons Next Activity Region with a Dynamic Region-Relation-Aware Graph Neural Network, ACM Transactions on Knowledge Discovery from Data (**TKDD**), 2022.

34. Xi Zhang, Xin Wei, Carol X.J. Ou, Emiel Caron, Hengshu, Zhu, and Hui, Xiong. From human-AI confrontation to human-AI symbiosis in society 5.0: Transformation challenges and mechanisms, IT Professional, 2022.

35. HongKe, Zhao, Yihang, Cheng, Xi Zhang, Hengshu, Zhu, Qi, Liu, Hui, Xiong, and Wei, Zhang. What is Market Talking about Market-oriented Prospect Analysis for Entrepreneur Fundraising, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

36. Yuan, Mu; Zhang, Lan; Li, Xiang-Yang; Yang, Lin-Zhuo; Xiong, Hui. Adaptive model scheduling for resource-efficient data labeling, ACM Transactions on Knowledge Discovery from Data (**TKDD**), 2022.

37. Wang, Dongjie; Liu, Kunpeng; Xiong, Hui; Fu, Yanjie. Online poi recommendation: Learning dynamic geo-human interactions in streams, IEEE Transactions on Big Data, 2022.

38. Hao, Liu, QingYu, Guo, Hengshu, Zhu, FuZhen, Zhuang, ShenWen, Yang, DeJing, Dou, and Hui, Xiong. Who will Win the Data Science Competition? Insights from KDD Cup 2019 and Beyond, ACM Transactions on Knowledge Discovery from Data (**TKDD**), 2022.

39. Zijun Yao, Deguang, Kong, Miao, Lu, Xiao, Bai, Jian, Yang, and Hui, Xiong. Multi-View Multi-Task Campaign Embedding for Cold-Start Conversion Rate Forecasting, IEEE Transactions on Big Data, 2022.

40. Yang, Yang; Wei, Hongchen; Zhu, Hengshu; Yu, Dianhai; Xiong, Hui; Yang, Jian. Exploiting Cross-Modal Prediction and Relation Consistency for Semisupervised Image Captioning, IEEE Transactions on Cybernetics, 2022.

41. Zhang, Denghui; Liu, Yanchi; Yuan, Zixuan; Fu, Yanjie; Chen, Haifeng; Xiong, Hui. Multi-faceted knowledge-driven pre-training for product representation learning, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2022.

42. Sun, Ying, H, Zhu, C, Qin, F, Zhuang, Q, He, H, Xiong. Discerning decision-making process of deep neural networks with hierarchical voting transformation, Advances in Neural Information Processing Systems 34 (2021): 17221-17234.

43. Shen, Dazhong, C, Qin, C, Wang, Z, Dong. Topic modeling revisited: A document graph-based neural network perspective. Advances in Neural Information Processing Systems 34 (2021): 14681-14693.

44. Zhao, Jiejie; Du, Bowen; Sun, Leilei; Lv, Weifeng; Liu, Yanchi; Xiong, Hui. Deep multi-task learning with relational attention for business success prediction, Pattern Recognition, 2021.

45. Zhang, Zhao; Zhuang, Fuzhen; Qu, Meng; Niu, Zheng-Yu; Xiong, Hui; He, Qing. Knowledge graph embedding with shared latent semantic units, Neural Networks, 2021.

46. Guo, Yanhong; Jiang, Shuai; Zhou, Wenjun; Luo, Chunyu; Xiong, Hui. A predictive indicator using lender composition for loan evaluation in P2P lending, Financial Innovation, 2021.

47. Zhang, Xi; Wang, Xianhai; Zhao, Hongke; de Pablos; Patricia Ordez; Sun, Yongqiang; Xiong, Hui. Correction to: An effectiveness analysis of altmetrics indices for different levels of artificial intelligence publications, Scientometrics, 2021.

48. Mingfei Teng, Hengshu Zhu*, Chuanren Liu, Hui Xiong*. Exploiting Networks Fusion for Organizational Turnover Prediction, ACM Transactions on Management Information Systems **(ACM TMIS)**, 2021.

49. Chao, Wang, Hengshu Zhu, Peng Wang, Chen Zhu, Xi Zhang, Enhong Chen, Hui, Xiong. Personalized and Explainable Employee Training Course Recommendations: A Bayesian Variational Approach, ACM Transactions on Information Systems **(ACM TOIS)**, 2021.

50. Ying Sun, Fuzhen Zhuang, Hengshu Zhu, Qing He, Hui Xiong. Modeling the Impact of Person-Organization Fit on Talent Management with Structure-Aware Attentive Neural Networks, IEEE Transactions on Knowledge and Data Engineering **(IEEE TKDE)**, 2021.

51. Yang Yang, Jia-Qi Yang, Ran Bao, De-Chuan Zhan, Hengshu Zhu, Xiao-Ru Gao, Hui, Xiong, Jian Yang. Corporate Relative Valuation using Heterogeneous Multi-Modal Graph Neural Network, IEEE Transactions on Knowledge and Data Engineering **(IEEE TKDE)**, 2021.

52. Dazhong Shen, Chuan Qin, Hengshu Zhu, Tong Xu, Enhong Chen, Hui Xiong. Joint Representation Learning with Relation-enhanced Topic Models for Intelligent Job Interview Assessment, ACM Transactions on Information Systems **(ACM TOIS)**, 2021.

53. HongTing Niu, HengShu Zhu, Ying Shu, XinJiang Lu, Jing Sun, ZhiYuan Zhao, Hui Xiong and Bo Lang. Exploring the risky travel area and behavior of car-hailing service, ACM Transactions on Intelligent Systems and Technology **(TIST)**, 2021.

54. HongZheng Yu, Zekai Chen, Xu Chen, Hui Xiong and Xiuzhen Cheng. Fedhar: Semi-supervised online learning for personalized federated human activity recognition., IEEE Transactions on Mobile Computing 2021.

55. Zhao Zhang, Fuzhen Zhuang, Hengshu Zhu, Chao Li, Hui Xiong, Qing He and Yongjun Xu. Towards robust knowledge graph embedding via multi-task reinforcement learning, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

56. Yang Yang; Wei Hongchen; Sun Zhen-Qiang; Li Guang-Yu; Zhou Yuanchun; Xiong Hui; Yang Jian. S2OSC: A holistic semi-supervised approach for open set classification, ACM Transactions on Knowledge Discovery from Data **(TKDD)**, 2021.

57. Yang Yang; Sun Zhen-Qiang; Zhu Hengshu; Fu Yanjie; Zhou Yuanchun; Xiong Hui; Yang Jian. Learning adaptive embedding considering incremental class, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

58. Fan Wei; Liu Kunpeng; Liu Hao; Ge Yong; Xiong Hui; Fu Yanjie; Interactive reinforcement learning for feature selection with decision tree in the loop, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

59. Zhou Jingbo; Huang Tao; Li Shuangli; Hu Renjun; Liu Yanchi; Fu Yanjie; Xiong Hui. Competitive relationship prediction for points of interest: A neural graphlet based approach, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

60. Qu Yue; Liu Chuanren; Zhang Kai; Xiao Keli; Jin Bo; Xiong Hui. Diagnostic sparse connectivity networks with regularization template, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

61. Teng Mingfei; Zhu Hengshu; Liu Chuanren; Xiong Hui. Exploiting network fusion for organizational turnover prediction, ACM Transactions on Management Information Systems **(TMIS)**, 2021.

62. Zhang Qi; Zhu Hengshu; Liu Qi; Chen Enhong; Xiong Hui. Exploiting Real-time Search Engine Queries for Earthquake Detection: A Summary of Results, ACM Transactions on Information Systems **(TOIS)**, 2021.

63. Ma Xiaoxiao; Wu Jia; Xue Shan; Yang Jian; Zhou Chuan; Sheng Quan; Xiong Hui; Akoglu, Leman. A comprehensive survey on graph anomaly detection with deep learning, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

64. Sun Heli; Wang Ning; Jia Jingyu; Huang Jianbin; Xiong Hui; He Liang; Liu Xinwang; Zhang Shan; Qiao Shaojie; Zhao Jizhong. Platform-Oriented Event Time Allocation, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

65. Qiang Wenwen; Li Jiangmeng; Zheng Changwen; Su Bing; Xiong Hui. Robust local preserving and global aligning network for adversarial domain adaptation, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

66. Liu Kunpeng; Fu Yanjie; Wu Le; Li Xiaolin; Aggarwal Charu; Xiong Hui. Automated feature selection: A reinforcement learning perspective, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

67. Zhu Nengjun; Cao Jian; Lu Xinjiang; Xiong Hui. Learning a hierarchical intent model for next-item recommendation, ACM Transactions on Information Systems **(TOIS)**, 2021.

68. Liu Junming; Chen Weiwei; Yang Jingyuan; Xiong Hui; Chen Can; Iterative prediction-and-optimization for E-logistics distribution network design, INFORMS Journal on Computing, 2021.

69. Sun Leilei; Liu Chuanren; Chen Guoqing; Guo Chonghui; Xiong Hui; Xie Yanming. Automatic treatment regimen design, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

70. Yang Yang; Zhou Da-Wei; Zhan De-Chuan; Xiong Hui; Jiang Yuan; Yang Jian. Cost-effective incremental deep model: Matching model capacity with the least sampling, IEEE Transactions on Knowledge and Data Engineering **IEEE TKDE**, 2021.

71. Qingyu Guo, Fuzhen Zhuang, Chuan Qin, Hengshu Zhu, Xing Xie, Hui Xiong, and Qing He. A Survey on Knowledge Graph-Based Recommendation Systems, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2020.

72. Jingbo Zhou, Tao Huang, Shuangli Li, Renjun Hu, Yanchi Liu, Yanjie Fu, and Hui Xiong. Competitive Relationship Prediction for Points of Interest: A Neural Graphlet Based Approach, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2020.

73. Tieyun Qian, Yile Liang, Qing Li, and Hui Xiong. Attribute Graph Neural Networks for Strict Cold Start Recommendation, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 2020.

74. Leilei Sun, Chuanren Liu, Guoqing Chen, Chonghui Guo, Hui Xiong, Yanming Xie. Automatic Treatment Regimen Design, IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**) (2020).

75. Renjun Hu, Jingbo Zhou, Xinjiang Lu, Hengshu Zhu, Shuai Ma, Hui Xiong, NCF: A Neural Context Fusion Approach to Raw Mobility Annotation, IEEE Trans. on Mobile Computing (**IEEE TMC**), 2020.

76. Hengshu Zhu, Ying Sun, Wenjia Zhao, Fuzhen Zhuang, Baoshan Wang, Hui Xiong, Rapid Learning of Earthquake Felt Area and Intensity Distribution with Real-time Search Engine Queries, In **Nature Scientific Reports**, 2020.

77. Chuan Qin, Hengshu Zhu, Tong Xu, Chen Zhu, Chao Ma, Enhong Chen, Hui Xiong, An Enhanced Neural Network Approach to Person-Job Fit in Talent Recruitment, In ACM Transactions on Information Systems (**ACM TOIS**) , 2020.

78. Xinjiang Lu, Zhiwen Yu, Chuanren Liu, Yanchi Liu, Hui Xiong, Bin Guo: Inferring Lifetime Status of Point-of-Interest: A Multitask Multiclass Approach ACM Transactions on Knowledge Discovery from Data **(ACM TKDD)** 14(1): 10:1-10:27 (2020).

79. Bowen Du, Chuanren Liu, Wenjun Zhou, Zhenshan Hou, Hui Xiong: Detecting Pickpocket Suspects from Large-Scale Public Transit Records. IEEE Transactions Knowledge and Data Engineering (**IEEE TKDE**), 31(3): 465-478 (2019)

80. Xi Zhang, Xianhai Wang, Hongke Zhao, Patricia Ordez de Pablos, Yongqiang Sun, Hui Xiong: An effectiveness analysis of altmetrics indices for different levels of artificial intelligence publications. **Scientometrics** 119(3): 1311-1344 (2019).

81. Yanjie Fu, Guannan Liu, Yong Ge, Pengyang Wang, Hengshu Zhu, Chunxiao Li, Hui Xiong: Representing Urban Forms: A Collective Learning Model with Heterogeneous Human Mobility Data. IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 31(3): 535-548 (2019).

82. Tong Xu, Hengshu Zhu, Hao Zhong, Guannan Liu, Hui Xiong, Enhong Chen: Exploiting the Dynamic Mutual Influence for Predicting Social Event Participation. IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**) 31(6): 1122-1135 (2019).

83. Huang Xu, Zhiwen Yu, Jingyuan Yang, Hui Xiong, Hengshu Zhu: Dynamic Talent Flow Analysis with Deep Sequence Prediction Modeling. IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**), 31(10): 1926-1939 (2019).

84. Bowen Du, Wenjun Zhou, Chuanren Liu, Yifeng Cui, Hui Xiong: Transit Pattern Detection Using Tensor Factorization. INFORMS Journal on Computing (**JOC**), 31(2): 193-206 (2019).

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157. 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.

158. Meng Qu, Hengshu Zhu, Junming Liu, Guannan Liu, Hui Xiong. A Cost-Effective Recommender System for Taxi Drivers. The 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD-2014**), pp.45-54, 2014.

159. 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.

160. 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.

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162. 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**), pp. 905-910, 2014.

163. 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**), pp.350-359, 2014.

164. 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**), pp.1339-1348, 2014.

165. 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**), pp.441-450, 2014.

166. 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, 2014.

167. 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.

168. Junjie Wu, Hongfu Liu, Hui Xiong, Jie Cao. A Theoretic Framework of K-means-based Consensus Clustering. In Proceedings of 23rd International Joint Conference on Artificial Intelligence (**JICAI-2013**), Oral Presentation, 2013.

169. Biao Xiang, Qi Liu, Enhong Chen, Hui Xiong, Yi Zheng, Yu Yang, PageRank with Priori: An Influence Propagation Perspective. In Proceedings of 23rd International Joint Conference on Artificial Intelligence (**IJCAI-2013**), Oral Presentation, 2013.

170. 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.

171. 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.

172. 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.

173. Bin Liu, Haifeng Chen, Abhishek B. Sharma, Guofei Jiang, Hui Xiong. Modeling heterogeneous time series dynamics to profile big sensor data in complex physical systems. IEEE BigData Conference, pp.631-638, 2013.

174. 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.

175. Hengshu Zhu, Enhong Chen, Kuifei Yu, Huanhuan Cao, 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.

176. 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.

177. 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.

178. Qi Liu, Biao Xiang, Enhong Chen, Yong Ge, Hui Xiong, Tengfei Bao, Yi Zheng. Influential seed items recommendation. **(RecSys-2012)**, 245-248, 2012.

179. 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.

180. 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)**

181. 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.

182. Yong Ge, Hui Xiong, Alexander Tuzhilin, Qi Liu. Collaborative filtering with collective training. **(RecSys-2011)**, pp.281-284, 2011.

183. 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.

184. 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.

185. 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.

186. 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.

187. 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.

188. 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.

189. 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.

190. 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 (**INFOCOM-2010**), pp. 767 - 775, 2010.

191. 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.

192. 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.

193. Xiaobin Ma, Shashi Shekhar, Hui Xiong, Multi-Type Nearest Neighbor Queries On Spatial-Temproal Road Networks With Time Window Constraints, ACM GIS-2009 International Symposium on Advances in Geographic Information Systems (**ACM GIS-2009**), pp. 484 - 487, 2009.

194. 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.

195. 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.

196. 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)**.

197. 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.

198. 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.

199. 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 (**CCS-2007**), pp. 161 - 171, 2007.

200. 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.

201. Yinglung Liang, Yanyong Zhang, Hui Xiong, Ramendra Sahoo, Failure Prediction in IBM Blue-Gene/L Event Logs, the 2007 IEEE International Conference on Data Mining (**ICDM-2007**), pp. 583 - 588, 2007.

202. 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.

203. Ping Luo, Hui Xiong, Kevin Lii, 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.

204. 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.

205. 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.

206. Tianming Hu, Hui Xiong, Sam Y. Sung, Co-Preserving Patterns in Bipartite Partitioning for Topic Identification, in Proceedings of the Seventh SIAM Int'l Conf. on Data Mining (**SDM-2007**), pp. 509 - 514, 2007.

207. 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.

208. 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.

209. 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.

210. Aabhas Paliwal, Nabil Adam, Hui Xiong, Christof Bornhovd, 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.

211. Tieyun 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 (**CIKM-2006**), pp. 782 - 783, 2006.

212. Gyorgy Simon, Hui Xiong, Eric Eilertson, and Vipin Kumar, Scan Detection: A Data Mining Approach, in Proceedings of the SIAM Int'l Conf. on Data Mining (**SDM-2006**), pp. 118 - 129, 2006.

213. 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 (**CIKM-2005**), pp. 355-356, 2005.

214. 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.

215. 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.

216. 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 Conf. on Knowledge Discovery and Data Mining (**KDD-2004**), pp. 364 - 373, 2004.

217. 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.

218. 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.

219. 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.

220. 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, Ansaf Alrabady, Enhancing Security and Privacy in Traffic-Monitoring Systems, **IEEE Pervasive Computing**, vol. 5, no. 4, pp. 38-46, 2006.

System Demo

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

RESEARCH GRANTS

- Principal Investigator, "Multi-modal Interaction Technology Cooperation Project", OPPO, RMB 971,698, 2022/8/22 - 2023/8/21

- Principal Investigator, "Research and application of human-machine collaborative outdoor sports big data analysis and security platform", Foshan City Hong Kong University of Science and Technology Industry-Academia-Research Special Collaboration Enterprise Research and Development Project, RMB 6,000,000, 03/01/2022 - 02/29/2024.

- Principal Investigator, "CRM System Big Data Service", RMB 987,500, 11/01/2022 - 02/28/2023.

- Principal Investigator, "Hong Kong University of Science and Technology (Guangzhou) Quwan Technology Joint Laboratory", RMB 8,000,000, 01/01/2023 - 12/30/2027.

- Principal Investigator, "Multi-modal AI Creative Bonsai Project", RMB 1,000,000, 02/01/2023 - 01/31/2024.

- Principal Investigator, "Guangzhou Key Laboratory of Frontier and Interdisciplinary Artificial Intelligence", RMB 3,000,000, 04/01/ 2023 - 03/31/2025.

- Principal Investigator, "Key Discipline of Guangzhou Education Bureau", RMB 3,000,000, 11/18/2022 - 11/17/2025.

- Principal Investigator, "Harnessing Big Data for Improving Career Mobility", National Science Foundation (NSF), $249,987, 2020 .

- Principal Investigator, "Substructure-aware Spatiotemporal Representation Learning", National Science Foundation (NSF), $75,000.00, 2020 - 2021

- Principal Investigator, "A Multi-source Data Driven Optimization Framework for Inter-connected Express Delivery System Design and Inventory Rebalance", National Science Foundation (NSF), $249,977.00, 2018 - 2021

- Principal Investigator, " Big Data Laboratory at Rutgers Business School Joint with IFLYTEK Co., Ltd.", IFLYTEK Co., Ltd, $1 million, 2017.

- Principal Investigator, "Automated recommendation systems", Unrestricted Gift Money, NEC Labs America, $20,000.00, 2019 -

- Principal Investigator, "Towards the Development of Smart Bike Sharing Systems", National Science Foundation (NSF), $99,933.00, 2016 - 2017.

- Principal Investigator, "Encrypted Network Classification and Service Quality Scoring", Futurewei Technologies Inc., $200,000.00, 2016 - 2018.

- Principal Investigator, "Enhancing the Capacity for Information Assurance Education Through Interdisciplinary Collaboration", National Science Foundation (NSF), $292,670.00, 2012 - 2015.

- 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.

- Co-Principal Investigator, "Planning Grant: I/UCRC for Dynamic Data Analytics", National Science Foundation (NSF), $10,000.00, 2009 - 2010.

- 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.
- 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.
- Co-Principal Investigator, "Center of Excellence for Cyber-Security and Information Assurance (CSIA)", 2007-2008 Rutgers Academic Excellence Fund (AEF) Award, $75,000.00.
- Co-Principal Investigator, "Service-oriented architeCtures supporting Networks Of Public Security - SoCNOS," The German Ministry for Education and Research, $566,000.00, 2007-2009.
- Co-Principal Investigator, "Information Technology for Emergency Management (iTeam)", 2007-2008 Rutgers Academic Excellence Fund (AEF) Award, $40,000.00.
- 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.

DEPARTMENTAL/UNIVERSITY SERVICE

- **Associate Vice President**, Knowledge Transfer, The Hong Kong University of Science and Technology (Guangzhou), April 2023 - Present.
- **Chair**, Research Committee of the Senate, The Hong Kong University of Science and Technology (Guangzhou), Present.
- **Head**, AI Thrust, The Hong Kong University of Science and Technology (Guangzhou), 2021 - Present.
- **Vice Chair**, MSIS Department, 2011 - 2014, 2015 - 2017
- **Director**, Rutgers Center for Information Assurance, 2011 - 2021.
- **Program Coordinator**, the Master of Information Technology, Rutgers Business School, 2011 - 2015
- **Ph.D. IT Coordinator**, Rutgers Business School, 2011 - 2015, 2020 - 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.
- **Interviewed and Featured by Economist** in the article "Cutpurse capers", 2016.
- **Interviewed and Featured by Scientia** in the article "Harnessing Big Data to Identify Ideal Locations for Warehouses and Bike Share Stations", 2020.

PROFESSIONAL ACTIVITIES
Professional Affiliations

- AAAS Fellow

- ACM Distinguished Scientist

- IEEE Fellow

Professional Services

- CCF Task Force on Big Data, Deputy Director, September 2023 - Present

- Secretary/Executive Committee, ACM SIGKDD, Present.

- The 2023 IEEE CS Fellow Evaluating Committee

- The 2021 IEEE CS Fellow Evaluating Committee

Journal Editorship

- **Associate Editor**, *IEEE Transactions on Data and Knowledge Engineering (TKDE)*, 2013 - 2018.

- **Associate Editor**, *Data and Knowledge Engineering (DKE)*, 2018 - Present.

- **Associate Editor**, *ACM Transactions on Management Information Systems (TMIS)*, 2015 - Present.

- **Associate Editor**, *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2015 - Present.

- **Associate Editor**, *IEEE Transactions on Big Data (TBD)*, 2015 - 2020.

- **Associate Editor**, *the Knowledge and Information Systems Journal (KAIS)*, Springer, 2007 - Present.

- **Editorial Board Member**, *Journal of Big Data*, Springer, 2014 - 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.

Conference Organizers

- Chair, the Test of Time Award, the 14th ACM Conference on WEB Search and Data Mining, 2021

- Chair, the 2020 IEEE ICDM Awards Nomination Committee

- General Co-Chairs, the 5th IEEE International Conf. on Data Science in Cyberspace (IEEE DSC 2020)

- Applied Data Science Invited Talk Chairs, the 25th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2019.

- Research Track Program Committee Co-Chair, the 24th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2018.

- Program Committee Vice Chair, IEEE Int'l Conference on Data Mining (ICDM), 2017.

- Program Committee Co-Chair, the 21st International Conference on Database Systems for Advanced Applications, 2016.

- 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 Co-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 Conf. on Knowledge Discovery and Data Mining (PAKDD), 2011.
- Program Committee Vice Chair, the Tenth IEEE International Conf. 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 Conf. on Machine Learning and Applications (ICMLA), 2007.
- Session Chair for Pattern Mining, the Sixth SIAM Int'l Conf. on Data Mining (SDM), 2006.
- PC 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
- **Ministry of Science and Technology, China**, 2022, 2023
- **NSF Panelists**, 2006, 2009, 2011, 2012, 2014, 2015, 2018.
- **NSF External Reviewer**, 2007, 2011, 2014, 2015.
- **External Reviewer**, Hongkong Research Grants Council, 2013, 2014, 2021, 2022.
- **External Reviewer**, IWT.Flemish government Agency for Innovation by Sci. and Tech., 2011.
- **External Reviewer**, The Natural Sciences and Engineering Research Council of Canada (NSERC), 2009, 2011.

Area Chairs/Senior Program Committees
- 2023, Area Chair, Research Track, the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD).
- 2023, Area Chair, Applied Data Science (ADS) Track, the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD).
- 2023, Area Chair, the AAAI Conference on Artificial Intelligence (AAAI-2023).
- 2022, the 30th International World Wide Web (WWW) Conference.
- 2021, Research Track, the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD).
- 2021, Applied Data Science (ADS) Track, the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD).
- 2021, Area Chair, the Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-2021)
- 2021, Area Chair, the 30th International Joint Conference on Artificial Intelligence (IJCAI-2021)
- 2021, the 2021 ACM Conference on Information and Knowledge Management (CIKM).
- 2020, the 20th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2019, the 27th International World Wide Web (WWW) Conference
- 2019, the 20th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2018, the 27th International World Wide Web (WWW) Conference
- 2018, the 22th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2017, the 26th ACM Conference on Information and Knowledge Management (CIKM).
- 2017, the 12th SIAM International Conference on Data Mining (SDM).
- 2017, the 21th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2016,the ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2016, the 20th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 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 27th International Joint Conference on Artificial Intelligence (IJCAI).
- 2015, the SIAM International Conference on Data Mining (SDM).
- 2015, the 19th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).

- 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).

Recent Talks
- Keynote talk, The 6th International Conference on Artificial Intelligence and Big Data, 2023
- Keynote talk, The 14th International Conference on Machine Learning and Computing, 2022
- Keynote talk, The 16th International Conference on Algorithmic Aspects in Information and Management (AAIM), 2022
- Keynote talk, Pacific Asia Conference on Information Systems, 2021
- Keynote talk, The 6th International Conference on Data Storage and Data Engineering (DSDE),2021
- AI in Human Resources Management, Keynote talk, AI SUMMIT SEOUL, 2020
- Mobile Analytics: Prospects and Opportunities, Keynote talk, The 14th Annual International Conference on Combinatorial Optimization and Applications (COCOA), 2020
- Talent Analytics: Prospects and Opportunities, Keynote talk, World Summit AI, 2019
- Talent Analytics: Prospects and Opportunities, Keynote talk, the 23rd Pacific-Asia Conference on Knowledge Discovery and Data Mining, 2019
- Frontiers of Data Driven AI in Mobile Environments, Keynote, KDD China Workshop, ACM KDD-2018
- Frontiers of Data Driven AI, Keynote, IJCAI-2018 Industry Days
- Talent Analytics: Prospects and Opportunities, Educational Testing Service (ETS), 2017.
- Talent Analytics: Prospects and Opportunities, Society of Quantitative Analysts, 2017.
- People Analytics in Human Resources, Keynote talk, Data Science of China Track, the 2016 ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD), 2016.