

# Yong Ge

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## RESEARCH INTERESTS

- Data Mining
- Machine Learning
- Recommender Systems
- Healthcare Analytics

## EDUCATION

- Ph.D., Management Science and Information Systems, Rutgers University, 2013.
- M.S., Signal Processing, University of Science and Technology of China, 2008.
- B.E., Information Engineering, Xi'an Jiao Tong University, 2005.

## HONORS

- Dean's Research Award (awarded to one Assistant Professor across the college), Eller College of Management, University of Arizona, 2020
- Summer Research Award, Eller College of Management, University of Arizona, 2020, 2021
- NSF CAREER Award, 2019
- RDI Faculty Seed Grants, University of Arizona, 2018
- One of the Best Papers, IEEE ICDM 2018
- Best Paper Nominee, INFORMS Workshop on Data Science, 2017
- Ralph E. Powe Junior Faculty Enhancement Award, 2015
- Excellence in Academic Research (One Per School), Rutgers Business School, 2013
- 2011 IEEE ICDM Best Research Paper
- Second Prize of Unsupervised and Transfer Learning Challenge, 2011, IJCNN and ICML
- Graduate Student Excellence Award, Rutgers University, 2011
- Summer Scholarship, Rutgers Business School, 2010
- NSF Student Travel Award, IEEE ICDM 2011
- Student Travel Award, ACM SIGKDD, 2009,2010,2011
- Dean's Fund, Rutgers Business School, 2009
- Spaceflight Information Scholarship, University of Science and Technology of China, 2007.

## PROFESSIONAL EXPERIENCES

- Associate Professor, Management Information Systems Department  
The University of Arizona, July 2021 - Present.
- Assistant Professor, Management Information Systems Department  
The University of Arizona, August 2016 - June 2021.
- Data Science Consultant,  
Samsung Research America, June 2017 - July 2020.
- Assistant Professor, Computer Science Department  
The University of North Carolina at Charlotte, August 2013 - 2016.
- Research Intern, Smart City Group  
IBM Thomas J. Watson Research Center, NY, June-August 2012.
- Research Intern, Autonomic Management Group  
NEC Labs, Princeton, NJ, May-August 2011.
- Research Intern, Panasonic System Solutions Development Center, NJ, August 2009.

## PUBLICATIONS

### Journal Publications

1. Hao Liu, Yong Ge, Job and Employee Embeddings: a Joint Deep Learning Approach. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, accepted, 2022
2. Jenny Lo-Ciganic, Ting Wang, Yong Ge, et. al. Dosing profiles of concurrent opioid and benzodiazepine use associated with overdose risk among US Medicare beneficiaries: Group-based multi-trajectory models. *Addiction*, 2022
3. Defu Lian, Zhihao Zhu, Kai Zheng, Yong Ge, Xing Xie and Enhong Chen. Network Representation Lightening from Hashing to Quantization. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, accepted, 2022
4. Weichao Liang, Zhiang Wu, Zhe Li, and Yong Ge. CrimeTensor: Fine-scale Crime Prediction via Tensor Learning with Spatiotemporal Consistency. *ACM Transactions on Transactions on Intelligent Systems and Technology*, accepted, 2021
5. Wei Fan, Kumpeng Liu, Hao Liu, Yong Ge, Hui Xiong and Yanjie Fu. Interactive Reinforcement Learning for Feature Selection with Decision Tree in the Loop. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, accepted, 2021
6. Le Wu, Junwei Li, Peijie Sun, Richang Hong, Yong Ge, Meng Wang. DiffNet++: A Neural Influence and Interest Diffusion Network for Social Recommendation. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, accepted, 2020
7. Junwei Li, Le Wu, Richang Hong, Kun Zhang, Yong Ge, and Yan Li. A Joint Neural Model for User Behavior Prediction on Social Networking Platforms. *ACM Transactions on Transactions on Intelligent Systems and Technology*, accepted, 2020
8. Zhiang Wu, Lei Chen, Jie Cao, Guixiang Zhu, and Yong Ge. Travel Recommendation via Fusing Multi-Auxiliary Information into Matrix Factorization. *ACM Transactions on Intelligent Systems and Technology*, Accepted, 2020.
9. Zhiang Wu, Lei Chen, Jie Cao, and Yong Ge. On Scalability of Association-Rule-Based Recommendation: A Unified Distributed-Computing Framework. *ACM Transactions on the Web*, Accepted, 2020.
10. Zhepeng Li, Yong Ge, Xue Bai. What Will Be Popular Next? Predicting Hotspots in Two-mode Social Networks. *Management Information Systems Quarterly (MIS Quarterly)*, Accepted, 2020
11. Yong Ge, Huayu Li, Alex Tuzhilin. Route Recommendations for Intelligent Transportation Services. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Accepted, 2019. DOI: 10.1109/TKDE.2019.2937864.
12. Yong Ge, Zijun Yao, and Huayu Li. Computing Co-location Patterns in Spatial Data with Extended Objects: A Buffer-based Approach. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Accepted, 2019. DOI: 10.1109/TKDE.2019.2930598.
13. Richang Hong, Yuan He, Le Wu, Yong Ge, Xindong Wu. Deep Attributed Network Embedding by Preserving Structure and Attribute Information. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, Accepted, 2019. DOI: 10.1109/TSMC.2019.2897152.
14. Zeyang Ye, Keli Xiao, Yong Ge and Yuefan Deng. Applying Simulated Annealing and Parallel Computing to the Mobile Sequential Recommendation. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2019, 31(2), pp. 243-256. DOI: 10.1109/TKDE.2018.2827047.
15. Ting Wang, Yong Ge, Walid F Gellad, James L. Huang, Jeannie K. Lee, Chian K Kwoh, Gary Resifield, Zachary A Marcum, Almut Winterstein, P. Chris Delcher, Juan Hincapie-Castillo, Wei-Hsuan Lo-Ciganic. Dual Trajectories of Opioid and Benzodiazepine Use and Risk Of Opioid Overdose Among US Medicare Beneficiaries. *Pharmacoepidemiology and Drug Safety*. Accepted, 2019. (Poster presentation at the 2019 International Conference on Pharmacoepidemiology and Therapeutic Risk Management, Philadelphia, Pennsylvania, USA, August 24-28, 2019).
16. Xi Liu, Muhe Xie, Xidao Wen, Rui Chen, Yong Ge, Nick Duffield, and Na Wang. Micro- and Macro-Level Churn Analysis of Large-Scale Mobile Games. *Knowledge and Information Systems*, Accepted, 2019. DOI: <https://doi.org/10.1007/s10115-019-01394-7>.

17. Hongke Zhao, Binbin Jin, Qi Liu, Yong Ge, Enhong Chen, Tong Xu and Xi Zhang. Voice of Charity: Prospecting the Donation Recurrence & Donor Retention in Crowdfunding. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Accepted, 2019. DOI: 10.1109/TKDE.2019.2906199.
18. Le Wu, Peijie Sun, Richang Hong, Yong Ge, Meng Wang. Collaborative Neural Social Recommendation. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, Accepted, 2018. DOI: 10.1109/TSMC.2018.2872842.
19. Yanjie Fu, Guannan Liu, Yong Ge, Hui Xiong, Hengshu Zhu. Representing Urban Forms: A Collective Learning Model with Heterogeneous Human Mobility Data. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2019, 31(3), pp. 535-548. DOI: 10.1109/TKDE.2018.2837027.
20. Keli Xiao, Zeyang, Ye, Lihao Zhang, Wenjun Zhou, Yong Ge, and Yuefan Deng. Multi-User Mobile Sequential Recommendation for Route Optimization. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, accepted, 2019
21. Defu Lian, Kai Zheng, Yong Ge, Xing Xie, Enhong Chen and Longbing Cao. GeoMF++: Making Joint Geographical Modeling and Matrix Factorization Scalable. *ACM Transactions on Information Systems (TOIS)*, 2018, 36(3). DOI: doi.org/10.1145/3182166.
22. Defu Lian, Yong Ge, Fuzheng Zhang, Nicholas Jing Yuan, Xing Xie, Tao Zhou and Yong Rui. Scalable Content-Aware Collaborative Filtering for Location Recommendation based on Human Mobility Data. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2018, 30(6), pp. 1122-1135. DOI: 10.1109/TKDE.2018.2789445.
23. Le Wu, Qi Liu, Richang Hong, Enhong Chen, Yong Ge, Meng Wang. Product Adoption Rate Prediction in a Competitive Market. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2018, 30(2), pp. 325-338. DOI: 10.1109/TKDE.2017.2763944.
24. Richang Hong, Chuan He, Yong Ge, and Xindong Wu. User Vitality Ranking and Prediction in Social Networking Service: a Dynamic Network Perspective. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2017, 29(6), pp.1343-1356. DOI: 10.1109/TKDE.2017.2672749.
25. Le Wu, Yong Ge, Qi Liu, Enhong Chen, Richang Hong and Meng Wang. Modeling the Evolution of Users' Preferences and Social Links in Social Networking Services. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2017, 29(6), pp. 1240-1253. DOI: 10.1109/TKDE.2017.2663422.
26. Chuanren Liu, Hui Xiong, Spiros Papadimitriou, Yong Ge and Keli Xiao. A Proactive Workflow Model for Healthcare Operation and Management. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2017, 29(3), pp. 586-598. DOI: 10.1109/TKDE.2016.2631537.
27. Ming He, Yong Ge, Enhong Chen and Qi Liu. Exploring the Emerging Type of Comment for Online Videos: DanMu. *ACM Transactions on the Web*, 2017, 12(1). DOI: doi.org/10.1145/3098885
28. Hongke Zhao, Yong Ge, Qi Liu, Guifeng Wang and Enhong Chen. P2P Lending Survey: Platforms, Recent Advances and Prospects. *ACM Transactions on Intelligent Systems and Technology*, 2017, 8(6). DOI: doi.org/10.1145/3078848.
29. Hongke Zhao, Qi Liu, Hengshu Zhu, Yong Ge, Enhong Chen and Yan Zhu. A Sequential Approach to Market State Modeling and Analysis in Online P2P Lending. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 2018, 48(1), pp. 21-33. DOI: 10.1109/TSMC.2017.2665038.
30. Ming He, Hao Guo, Guangyi Lv, Le Wu, Yong Ge, Enhong Chen and Haiping Ma. Leveraging proficiency and preference for online Karaoke recommendation. *Frontiers of Computer Science*, 2020, 14(2), pp. 273-290. DOI: doi.org/10.1007/s11704-018-7072-6.
31. Yanjie Fu, Hui Xiong, Yong Ge, Yu Zheng, Zijun Yao, Zhi-Hua Zhou. Modeling of Geographical Dependencies for Real Estate Ranking. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2016, 11(1). DOI: doi.org/10.1145/2934692
32. Chen Zhu, Hengshu Zhu, Yong Ge, Enhong Chen, Liu Qi, Tong Xu, and Hui Xiong. Tracking the Evolution of Social Emotions with Topic Models, *Knowledge and Information Systems*, 2016, 47(3). DOI: doi.org/10.1007/s10115-015-0865-0
33. Yuanchun Zhou, Yang Zhang, Yong Ge, Zhenghua Xue, Yanjie Fu, Danhuai Guo, Jing Shao, Tiangang Zhu, Xuezhi Wang, and Jianhui Lia. An Efficient Data Processing Framework for Mining Massive Trajectory of Moving Objects, *Elsevier Journal Computers, Environment and Urban Systems*, 2017, 61(B).

34. Yi Zheng, Qi Liu, Enhong Chen, Yong Ge, and J. Leon Zhao. Exploiting Multi-Channels Deep Convolutional Neural Networks for Multivariate Time Series, *Frontiers of Computer Science*, 2016, 10(1). DOI: doi.org/10.1007/s11704-015-4478-2.
35. Hengshu Zhu, Chuanren Liu, Yong Ge, Hui Xiong and Enhong Chen. Popularity Modeling for Mobile Apps: A Sequential Approach, *IEEE Transactions on Cybernetics*, 2015, 45(7), pp. 1303-1314. DOI: 10.1109/TCYB.2014.2349954.
36. Hengshu Zhu, Hui Xiong, Yong Ge, and Enhong Chen. Discovery of Ranking Fraud for Mobile Apps: A Summary of Results, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2015, 27(1), pp. 74-87. DOI: 10.1109/TKDE.2014.2320733.
37. Yong Ge, Guofei Jiang, Min Ding, and Hui Xiong. Metric Ranking in Invariant Networks of Distributed Systems, *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2014, 8(2). DOI: doi.org/10.1145/2601436.
38. Yong Ge, Hui Xiong, Alexander Tuzhilin, and Qi Liu. Cost-aware Collaborative Filtering for Travel Tour Recommendations, *ACM Transactions on Information Systems (TOIS)*, 2014, 32(1). DOI: doi.org/10.1145/2559169.
39. Liuzhi Yin, Yong Ge, Keli Xiao, Xuehua Wang, Xiaojun Quan. Feature Selection for High-Dimensional Imbalanced Data. *Neurocomputing*, 2013, 105(3), pp. 3-11.
40. Qi Liu, Enhong Chen, Hui Xiong, Yong Ge, and Zhongmou Li. A Cocktail Approach for Travel Package Recommendation, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2014, 26(2), pp. 278-293. DOI: 10.1109/TKDE.2012.233.
41. Yong Ge, Hui Xiong, Wenjun Zhou, Siming Li and Ramendra Sahoo. Multi-focal Learning for Customer Problem Analysis. *ACM Transactions on Intelligent Systems and Technology*, 2011, 2(3). DOI: doi.org/10.1145/1961189.1961196.
42. Xiaojun Quan, Hui Xiong, Wenyu Dou, Liu Wenyin, Yong Ge. Link Graph Analysis for Business Site Selection. *IEEE Computer*, 2012, 45(3), pp. 64-69. DOI: 10.1109/MC.2011.260

#### Conference Publications

1. Weijia Zhang, Hao Liu, Jindong Han, Yong Ge, and Hui Xiong. Multi-Agent Graph Convolutional Reinforcement Learning for Dynamic Electric Vehicle Charging Pricing. *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, Accepted, 2022.
2. Chuang Zhao, Hongke Zhao, Yong Ge, Runze Wu and Xudong Shen. Winning Tracker: A New Model for Real-time Winning Prediction in MOBA Games. *Proceedings of the International World Wide Web Conference (WWW)*, Accepted, 2022.
3. Qi Liu, Jin Zhang, Defu Lian, Yong Ge, Jianhui Ma and Enhong Chen. Online Additive Quantization. *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, Accepted, 2021.
4. Chenwang Wu, Defu Lian, Yong Ge, Zhihao Zhu and Enhong Chen. Triple Adversarial Learning for Influence based Poisoning Attack in Recommender Systems. *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, Accepted, 2021.
5. Chenwang Wu, Defu Lian, Yong Ge, Zhihao Zhu and Enhong Chen. Fight Fire with Fire: Towards Robust Recommender Systems via Adversarial Poisoning Training. *the International ACM SIGIR Conference on Research and Development in Information Retrieval*, accepted, 2021.
6. Wei Fan, Kumpeng Liu, Hao Liu, Pengyang Wang, Yong Ge, and Yanjie Fu. Diversity-aware Interactive Reinforced Feature Selection. *the IEEE International Conference on Data Mining (ICDM)*, accepted, 2020.
7. Ninghao Liu, Yong Ge, Li Li, Xia Hu, Rui Chen and S H Choi. Explainable Recommender Systems via Resolving Learning Representations,” *the 29th ACM International Conference on Information and Knowledge Management*, accepted, 2020.
8. Defu Lian, Yongji Wu, Yong Ge, Xing Xie and Enhong Chen. Geography-Aware Sequential Location Recommendation. *Proceedings of the 26nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, Accepted, 2020.

9. Xianshan Qu, Li Li, Xi Liu, Rui Chen, Yong Ge, and Soo-Hyun Choi. A Dynamic Neural Network Model for Click-Through Rate Prediction in Real-Time Bidding. *IEEE Big Data*, accepted, 2019.
10. Hao Liu, Yong Ge, F.W Roemer, A Guermazi, C.K Kwoh. A Machine Learning Method for Automatically Scoring Knee MRI-detected Effusion-Synovitis. *International Workshop on Osteoarthritis Imaging*, accepted, 2019.
11. Haoyu Wang, Defu Lian, Yong Ge. Binarized Collaborative Filtering with Distilling Graph Convolutional Network. *The International Joint Conference on Artificial Intelligence (IJCAI)*, accepted, 2019.
12. Le Wu, Lei Chen, Yonghui Yang, Richang Hong, Yong Ge, Xing Xie, Meng Wang. Personalized Multimedia Item and Key Frame Recommendation. *The International Joint Conference on Artificial Intelligence (IJCAI)*, accepted, 2019.
13. Binbin Jin, Hongke Zhao, Enhong Chen, Qi Liu, Yong Ge. Estimating the Days to Success of Campaigns in Crowdfunding: A Deep Survival Perspective. *AAAI Conference on Artificial Intelligence (AAAI)*, accepted, 2018.
14. Xi Liu, Muhe Xie, Xidao Wen, Rui Chen, Yong Ge, Nick Duffield, and Na Wang. A Semi-Supervised and Inductive Embedding Model for Churn Prediction of Large-Scale Mobile Games. *the IEEE International Conference on Data Mining (ICDM)*, accepted, 2018.
15. Zhuang Feng, Zhiyuan Zhou, Shijie Hao, Yong Ge, Richang Hong, and Meng Wang. Single Low-light Image Enhancement by Fusing Multiple Sources. *IEEE Fourth International Conference on Multimedia Big Data*, accepted, 2018.
16. Defu Lian, Kai Zheng, Vincent W. Zheng, Yong Ge, Longbing Cao, Ivor W. Tsang and Xing Xie, High-order Proximity Preserving Information Network Hashing. *The 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'18)*, accepted, 2018.
17. Zeyang Ye, Lihao Zhang, Keli Xiao, Wenjun Zhou, Yong Ge, Yuefan Deng. Multi-User Mobile Sequential Recommendation: An Efficient Parallel Computing Paradigm. *The 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'18)*, accepted, 2018.
18. Huayu Li, Yong Ge, Hengshu Zhu, Hui Xiong and Hongke Zhao. Prospecting the Career Development of Talents: A Survival Analysis Perspective. *The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'17)*, accepted, 2017.
19. Huayu Li, Martin Renqiang Min, Yong Ge, and Asim Kadav. A Context-aware Attention Network for Interactive Question Answering. *The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'17)*, accepted, 2017.
20. Defu Lian, Rui Liu, Yong Ge, Kai Zheng, Xing Xie and Longbing Cao. Discrete Content-aware Matrix Factorization. *The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'17)*, accepted, 2017.
21. Hongke Zhao, Hefu Zhang, Yong Ge, Qi Liu, Enhong Chen, Huayu Li and Le Wu. Tracking the Dynamics in Crowdfunding. *The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'17)*, accepted, 2017.
22. Lixia Yao, Boshu Ru, Charles Warner-Hillard and Yong Ge. Identifying Serendipitous Drug Usages in Patient Forum Data. *the International Conference on Health Informatics*, accepted, 2017.
23. Defu Lian, Zhengyu Zhang, Yong Ge, Fuzheng Zhang, Nicholas Jing Yuan, and Xing Xie. Regularized Content-Aware Tensor Factorization Meets Temporal-Aware Location Recommendation. *the IEEE International Conference on Data Mining (ICDM)*, accepted, 2016.
24. Hongke Zhao, Qi Liu, Yong Ge, Ruoyan Kong, and Enhong Chen. Group Preference Aggregation: A Nash Equilibrium Approach. *the IEEE International Conference on Data Mining (ICDM)*, accepted, 2016.
25. Huayu Li, Yong Ge, Richang Hong, Hengshu Zhu. Point-of-Interest Recommendations: Learning Potential Check-ins from Friends. *The 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2016)*, San Francisco, CA, USA, accepted, 2016.

26. Hongke Zhao, Qi Liu, Guifeng Wang, Yong Ge, and Enhong Chen. Portfolio Selections in P2P Lending: A Multi-Objective Perspective. The 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2016), San Francisco, CA, USA, accepted, 2016.
27. Hengshu Zhu, Hui Xiong, Fangshuang Tang, Qi Liu, Yong Ge, Enhong Chen, Yanjie Fu. Days on Markets: Measuring the Liquidity of Real Estate Markets. The 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2016), San Francisco, CA, USA, accepted, 2016.
28. Defu Lian, Yong Ge, Nicholas Yuan, Xing Xie, Hui Xiong. Sparse Bayesian Content-Aware Collaborative Filtering for Implicit Feedback. The 25th International Joint Conference on Artificial Intelligence (IJCAI 2016), accepted, 2016.
29. Huayu Li, Richang Hong, Defu Lian, Zhiang Wu, Meng Wang and Yong Ge. A Relaxed Ranking-based Factor Model for Recommender System from Implicit Feedback. The 25th International Joint Conference on Artificial Intelligence (IJCAI'16), accepted, 2016.
30. Le Wu, Yong Ge, Qi Liu, Enhong Chen, Bai Long, and Zhenya Huang. Modeling Users' Preferences and Social Links in Social Networking Services: A Joint-Evolving Perspective. Association for the Advancement of Artificial Intelligence (AAAI), 2016, pp. 279-286
31. Ming He, Yong Ge, Le Wu, Enhong Chen and Chang Tan. Predicting the Popularity of DanMu-enabled Videos: A Multi-factor View. International Conference on Database Systems for Advanced Applications (DASFAA 2016), accepted, 2016.
32. Huayu Li, Richang Hong, Zhiang Wu and Yong Ge. A Spatial-Temporal Probabilistic Matrix Factorization Model for Point-of-Interest Recommendation. SIAM International Conference on Data Mining (SDM 2016), accepted, 2016.
33. Defu Lian, Yong Ge, Fuzheng Zhang, Jin Yuan, Xing Xie, Tao Zhou, and Yong Rui. Content-Aware Collaborative Filtering for Location Recommendation based on Human Mobility Data. the 15th IEEE International Conference on Data Mining (ICDM), accepted, 2015
34. Huayu Li, Rongcheng Lin, Richang Hong and Yong Ge. Generative Models for Mining Latent Aspects and Their Ratings from Short Reviews. the 15th IEEE International Conference on Data Mining (ICDM), accepted, 2015
35. Huayu Li, Richang Hong and Yong Ge. Point-of-Interest Recommender Systems: A Separate-Space Perspective with Social Network. the 15th IEEE International Conference on Data Mining (ICDM), accepted, 2015
36. Danhuai Guo, Yingqiu Zhu, Wei Xu, Yong Ge, Yuanchun Zhou, Jianhui Li. How to Find Appropriate Automobile Exhibition Halls: Towards a Personalized Recommendation Service for Auto Show. ICDM Workshops. 2015, pp. 1025-1030
37. Yong Ge and Jingjing Li. Measure and Mitigate the Dimensional Bias in Online Reviews and Ratings. the International Conference on Information Systems (ICIS), accepted, 2015
38. Yanjie Fu, Guannan Liu , Spiros Papadimitriou, Hui Xiong Yong Ge, Hengshu Zhu and Chen Zhu. Real Estate Ranking via Mixed Land-use Latent Models . the 21st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining ( KDD'15), Sydney, August, 2015.
39. Zhefeng Wang, Qi Liu, Yu Yang, Yong Ge, Enhong Chen, and Biao Chang. Maximizing the Coverage of Information Propagation in Social Networks. International Joint Conference on Artificial Intelligence (IJCAI 2015), accepted, 2015.
40. Xiaojun Quan, Chunyu KIT, Yong Ge, and Sinno Jialin Pan. Short and Sparse Text Topic Modeling via Self-Aggregation. International Joint Conference on Artificial Intelligence (IJCAI 2015), accepted, 2015.
41. Rongcheng Lin, Huayu Li, Xiaojun Quan, Richang Hong, Zhiang Wu and Yong Ge. Regularizing Flat Latent Variables with Hierarchical Structures. International Joint Conference on Artificial Intelligence (IJCAI 2015), accepted, 2015.
42. Huayu Li, Hengshu Zhu, Yong Ge, Yanjie Fu and Yuan Ge. Personalized TV Recommendation with Mixture Probabilistic Matrix Factorization. SIAM International Conference on Data Mining (SDM 2015), accepted, 2015.

43. Xiao Xiao, Yong Ge, Yunchang Guo, Danhuai Guo, Yi Shen, Yuanchun Zhou, and Jianhui Li. Automated Detection for Probable Homologous Foodborne Disease Outbreaks. The 19th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2015), accepted, 2015.
44. Changxia Tao, Yong Ge, Qinbao Song, Yuan Ge, and Femi Omitaomu. Metric Ranking of Invariant Networks with Belief Propagation. the 14th IEEE International Conference on Data Mining, ShenZhen, China, 2014.
45. Hongke Zhao, Le Wu, Qi Liu, Yong Ge, and Enhong Chen. Investment Recommendation in P2P Lending: A Portfolio Perspective with Risk Management. the 14th IEEE International Conference on Data Mining, ShenZhen, China, 2014.
46. Chen Zhu, Hengshu Zhu, Yong Ge, Enhong Chen and Qi Liu. Tracking the Evolution of Social Emotions: A Time-Aware Topic Modeling Perspective. the 14th IEEE International Conference on Data Mining, ShenZhen, China, 2014.
47. Liang Wu, Hui Xiong, Jianhui Li, Yuanchun Zhou, Yanjie Fu, Yong Ge, Guandong Xu, Bo Liu, and Liang Du. Heterogeneous Metric Learning with Content-based Regularization for Software Artifact Retrieval. the 14th IEEE International Conference on Data Mining, ShenZhen, China, 2014.
48. Yanjie Fu, Yong Ge, Zijun Yao, Hui Xiong, Yanchi Liu, and Yu Zheng. Sparse Real Estate Ranking with Online User Reviews and Offline Moving Behaviors. the 14th IEEE International Conference on Data Mining, ShenZhen, China, 2014.
49. Bo Jin, Yong Ge, Hengshu Zhu, Li Guo, Hui Xiong, and Chao Zhang. Technology Prospecting for High Tech Companies through Patent Mining. the 14th IEEE International Conference on Data Mining, ShenZhen, China, 2014.
50. Biao Chang, Hengshu Zhu, Yong Ge, Enhong Chen, Hui Xiong, and Chang Tan. Predicting the Popularity of Online Serials with Autoregressive Models. the ACM International Conference on Information and Knowledge Management (CIKM), Shanghai, 2014.
51. Yanjie Fu, Yong Ge, Zijun Yao, Hui Xiong, and Yu Zheng. Exploiting Geographic Dependencies for Residential Real Estate Appraisal via ClusRanking . the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining ( KDD'14), New York City, August, 2014.
52. Chuanren Liu, Yong Ge, Hui Xiong, Wei Geng, and 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'14), New York City, August, 2014.
53. Hengshu Zhu, Hui Xiong, Yong Ge, and Enhong Chen. A Security-Aware Mobile App Recommender System . the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining ( KDD'14), New York City, August, 2014.
54. Yi Zheng, Qi Liu, Enhong Chen, Yong Ge, and Leon Zhao. Time Series Classification using Multi-Channels Deep Convolutional Neural Networks. The International Conference on Web-Age Information Management (WAIM), Macau, China, accepted, 2014.
55. Yanjie Fu, Biu Liu, Yong Ge, Zijun Yao, Hui Xiong. User Preference Learning with Multiple Information Fusion for Restaurant Recommendation. SIAM International Conference on Data Mining (SDM 2014), Philadelphia, Pennsylvania, accepted, 2014.
56. Jinsong Lan, Cheng Long, Raymond Chi-Wing Wong, Youyang Chen, Yanjie Fu, Danhuai Guo, Shuguang Liu, Yong Ge, Yuanchun Zhou and Jianhui Li. A New Framework for Traffic Anomaly Detection. SIAM International Conference on Data Mining (SDM 2014), Philadelphia, Pennsylvania, accepted, 2014.
57. Chuanren Liu, Tianming Hu, Yong Ge, Hui Xiong. Finding Well-Clusterable Subspaces for High Dimensional Data A Numerical One-Dimension Approach. The 18th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2014), Tainan, Taiwan, accepted, 2014.
58. Yong Ge, Guofei Jiang. Efficient Invariant Search for Distributed Information Systems. the 13th IEEE International Conference on Data Mining (ICDM 2013), Dallas, US, accepted, 2013.
59. Hengshu Zhu, Hui Xiong, Yong Ge, and Enhong Chen. Ranking Fraud Detection for Mobile Apps: A Holistic View. the 22nd ACM Conference on Information and Knowledge Management (CIKM'13), Burlingame, CA, USA, accepted, 2013.

60. Tengfei Bao, Yong Ge, Enhong Chen, Hui Xiong, Jilei Tian. Collaborative Filtering with User Ratings and Tags. ACM KDD 2012 International Workshop on Context Discovery and Data Mining, Beijing, China, 2012.
61. 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), Brussels, Belgium, 2012.
62. Qi Liu, Biao Xiang, Enhong Chen, Yong Ge, Hui Xiong, Tengfei Bao. Influential Seed Items Recommendation. the 6th ACM International Conference on Recommender Systems, Dublin, Ireland, 2012.
63. Chuanren Liu, Tianming Hu, Yong Ge, Hui Xiong. Which Distance Metric is Right: An Evolutionary K-Means View. the SIAM International Conference on Data Mining (SDM 2012), Anaheim, California, USA, 2012.
64. Yong Ge, Hui Xiong, Chuanren Liu, Zhi-Hua Zhou. A Taxi Driving Fraud Detection System. the 11th IEEE International Conference on Data Mining (ICDM 2011), Vancouver, Canada, December, 2011, pp.181-190.
65. Qi Liu, Yong Ge, Zhongmou Li, EnHong Chen, and Hui Xiong. Personalized Travel Package Recommendation. the 11th IEEE International Conference on Data Mining (ICDM 2011), Vancouver, Canada, December, 2011, 407-416. (Best Research Paper Award)
66. Yong Ge, Hui Xiong, Alexander Tuzhilin, Qi Liu. Collaborative Filtering with Collective Training. the 5th ACM International Conference on Recommender Systems, Chicago, US, October, 2011, pp.281-284.
67. 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'11), San Diego, US, August, 2011, pp. 983-991.
68. Yong Ge, Chuanren Liu, Hui Xiong. A Taxi Business Intelligence System. the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'11), San Diego, US, August, 2011, pp. 735-738. (demo paper)
69. Chuanren Liu, Jianjun Xie, Yong Ge, Hui Xiong. Stochastic Unsupervised Learning on Unlabeled Data. Journal of Machine Learning Research - Workshop and Conference Proceedings, accepted, 2011.
70. Yong Ge, Hui Xiong, Zhi-Hua Zhou, Hasan Ozdemir, Jannite Yu, and K.C. Lee. TOP-EYE: Top-k Evolving Trajectory Outlier Detection. the 19th ACM Conference on Information and Knowledge Management (CIKM'10), Toronto, Canada, October, pp. 1733-1736, 2010.
71. Yong Ge, Hui Xiong, Alexander Tuzhilin, Keli Xiao, Marco Gruteser, Michael J. Pazzani. An Energy-Efficient Mobile Recommender System. the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'10), Washington, DC, US, July, pp. 899-908, 2010.
72. 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'10), Las Vegas, US, August, pp. 165 - 170, 2010.
73. 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 International Conference on Computer Communications (IEEE INFOCOM'10), San Diego, CA, USA, pp. 767-775, March 2010.
74. Yong Ge, Hui Xiong, Wenjun Zhou, Ramendra Sahoo, Xiaofeng Gao, and 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'09), Paris, France, pp. 349-358, June, 2009.
75. Yong Ge, Richang Hong, Zhiwei Gu, Rong Zhang, Xiuqing Wu. A Probability Model for Image Annotation, IEEE International Conference on Multimedia & Expo (ICME07), Beijing, China, July, 2007, pp. 827-830
76. Richang Hong, Chao Wang, Yong Ge, Meng Wang, Xiuqing Wu. Saliency Preserving Multi-focus Image Fusion, IEEE International Conference on Multimedia & Expo (ICME07), Beijing, China, July, 2007, pp. 1663-1666



## Patents

1. Guofei Jiang, Min Ding and Yong Ge. Method for Metric Ranking in Invariant Networks of Distributed Systems, US8943367B2(Grant), 2015

## RESEARCH GRANTS

### Received Grants

- NSF IIS Small: "Learning to Hash Information Networks"  
Role: PI, Amount: \$507,621, Period: 10/1/2020 - 9/30/2023
- NSF IIS Small: "Collaborative Research: Harnessing Big Data for Improving College Graduates' Career Mobility"  
Role: PI, Amount: \$257,881, Period: 10/1/2020 - 9/30/2023
- NSF CAREER Award: "CAREER: Mining Career, Education and Job Data to Bridge the Talent Gap between Demand and Supply"  
Role: PI, Amount: \$499,888, Period: 4/1/2019 - 3/31/2024
- NIH R21: "Developing a Real-Time Trajectory Tool to Identify Potentially Unsafe Concurrent Opioid and Benzodiazepine Use among Older Adults"  
Role: Co-I (PI: Jenny Lo-Ciganic), Amount: \$408,172, Period: 5/1/2019 - 3/31/2021
- NSF III 1814771: "A Multi-source Data Driven Optimization Framework for Inter-connected Express Delivery System Design and Inventory Rebalance"  
Role: PI, Amount: \$249,888, Period: 8/15/2018 - 7/31/2021
- NSF EAGER 1648703: "Towards the Development of Smart Bike Sharing Systems"  
Role: PI, Amount: \$99,810, Period: 8/1/2016 - 7/31/2019
- University of Arizona Research, Discovery, and Innovation (RDI) Faculty Seed Grants: "Mining Career, Education and Job Data to Bridge the Gap between Talent Demand and Supply"  
Role: PI, Amount: \$10,000, Period: 7/1/2018 - 6/30/2019
- University of Arizona Eller College Small Research Grant: "Career Path Analysis and Prediction with LinkedIn Profiles"  
Role: PI, Amount: \$2,500, Period: 8/15/2017 - 8/14/2018
- NIH R21 R21AA023975: "Mining Patterns of Substance Use by Young Adults with Social Media Data"  
Role: PI, Amount: \$368,172, Period: 9/1/2014 - 8/31/2016
- Ralph E. Powe Junior Faculty Enhancement Award: "Invariant Analysis for Anomaly Detection and Diagnosis of Information Systems"  
Role: PI, Amount: \$10,000, Period: 6/1/2015 - 5/31/2016

## TEACHING EXPERIENCES

### Courses Taught

- MIS 584 Big Data Technology  
The University of Arizona, Fall 2019
- MIS 611A Design Science Research Methodologies  
The University of Arizona, Fall 2018, Fall 2019
- MIS 464 Data Analytics  
The University of Arizona, Spring 2018
- MIS 587 Business Intelligence  
The University of Arizona, Spring 2019, Spring 2020
- MIS 587 Business Intelligence (Two Sections)  
The University of Arizona, Spring 2017, Spring 2018
- Knowledge Discovery in Databases (ITCS 6162/8162)  
UNC Charlotte, Spring 2015
- Introduction to Data Mining (ITCS 4010)  
UNC Charlotte, Fall 2014
- Data Structures (ITCS 2214-004)  
UNC Charlotte, Fall 2013
- Data Mining for Business (ITCS 6010/8010)  
UNC Charlotte, Spring 2014

- Management Information Systems (29 623 220 01)  
Rutgers Business School, NJ, Fall 2010, Spring 2011
- Data Mining for Business Intelligence (29 623 386 01)  
Rutgers Business School, NJ, Fall 2011

#### Teaching Development

- How Can I Build a Useful Syllabus in D2L Brightspace?, University of Arizona, August 2018.
- Faculty Learning Communities, University of Arizona, Fall 2018.

#### Student Supervision

- Dissertation Chair/Advisor, Hao Liu, University of Arizona, 2017-present.
- Dissertation Chair/Advisor, Huayu Li, University of North Carolina at Charlotte, 2014-2018.
- Dissertation Committee, Yang Wang, University of Arizona, 2017.
- PhD Prelim Committee, Yang Gu, Zhengchao Yang, University of Arizona, 2018.
- MIS Independent Study, Prabhat Boddupalli, University of Arizona, Spring, 2018.
- MIS Minor Advisor, Antonio M Iniguez, University of Arizona, 2017-2018.
- MIS 696H Master's Report Projects, Harmeet Chawla, University of Arizona, Fall, 2018.

#### SERVICE ACTIVITIES

##### Internal Services at UA

- 2019-2020, Eller MIS MS Program Committee
- 2018-2019, Eller MIS MS Program Committee
- 2018-2019, Review UA RDI Research Advancement Grant Proposals

##### Journal Associate Editor and Editorial Board

- Editorial Board, Journal of Business Analytics, 2018-present.

##### Conference Organizers

- 2021, Program Co-Chair, INFORMS Workshop on Data Science.
- 2019, Poster Co-Chair, the ACM SIGKDD International Conf. on Knowledge Discovery and Data Mining (KDD).
- 2017, PC Co-Chair, The 10th International Conference on Knowledge Science, Engineering and Management (KSEM).
- 2014, Publicity Chair, the IEEE International Conference on Big Data (IEEE BigData).
- 2014, Publicity Chair, the IEEE International Conference on Data Mining (ICDM).
- 2014, Workshop Chair, the Third ASE International Conference on Big Data Science and Computing.

##### Proposal Review

- 2021, NSF IIS Core Panelist
- 2021, NSF IIS Core Panelist.
- 2020, NSF IIS CAREER Panelist.
- 2020, NSF IIS Core Panelist.
- 2019, NSF IIS CAREER Panelist.
- 2017, NSF ad-hoc reviewer

##### Program Committees

- 2021, International Joint Conference on Artificial Intelligence (IJCAI)
- 2021, AAAI Conference on Artificial Intelligence (AAAI)
- 2020, 2018, The International Conference On Information Systems (ICIS)

- 2018, The 28th Annual Workshop on Information Technologies and Systems (WITS)
- 2021, 2020 2019, 2018, 2017, 2016, 2015, 2014, 2013, the ACM SIGKDD International Conf. on Knowledge Discovery and Data Mining (KDD)
- 2017, 2016, 2015, 2014, the Eighth ACM Conference on Recommender Systems (RecSys)
- 2016, 2015, 2014, the SIAM International Conference on Data Mining (SDM)
- 2014, 2013, the International Conference on Web-Age Information Management (WAIM)
- 2018 (Senior PC), 2017, 2016, 2015, 2014, 2013, the IEEE International Conference on Data Mining (ICDM)
- 2013, the ACM SIGKDD International Conf. on Knowledge Discovery and Data Mining, Demo Track
- 2013, the 1st International Workshop on Internet of Things

#### Journal Review

- IEEE Transaction on Knowledge and Data Engineering
- INFORMS Management Science
- Management Information Systems Quarterly
- Information Systems Research
- ACM Transaction on Intelligent Systems and Technology
- ACM Transactions on Knowledge Discovery from Data
- INFORMS Journal on Computing
- IEEE Transactions on Cybernetics

#### MEDIA COVERAGE

- Inside UNC Charlotte, “CCI professor develops tool to help track illegal drug use via social media”, April 2016, <https://inside.uncc.edu/news-features/2016-04-11/cci-professor-develops-tool-help-track-illegal-drug-use-social-media>.
- Venturebeat.com, ”Researchers use Samsung data and AI to predict mobile game churn”, January 2019, <https://venturebeat.com/2019/01/21/researchers-use-samsung-data-and-ai-to-predict-mobile-game-churn/>.
- Insidetucsonbusiness, “Renewable energy, water filters, bridging the talent gap and more”, April 2019, <https://www.insidetucsonbusiness.com/news/renewable-energy-water-filters-bridging-the-talent-gap-and-more/article-8f25818c-5ca5-11e9-8cba-87296e5e231e.html>.
- azbigmedia, “Eller professor earns National Science Foundation CAREER Award”, April 2019, <https://azbigmedia.com/the-move-at-liberty-property-trust-caliber-myndshft-ua-crayola/>.

#### REFERENCES

available upon request