

Junming Liu, Ph.D.

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RESEARCH INTERESTS

Supply Chain Management and Analytics, Data Mining and Knowledge Discovery, Recommender Systems, Business Intelligence, Urban Computing

EDUCATION

Ph.D., Information Technology, MSIS Department 05/2019
Rutgers, the State University of New Jersey
Advisor: Professor Hui Xiong

M.S., Physics, Department of Physics 05/2015
Rutgers, the State University of New Jersey

B.S., Physics, School of Gifted Young 05/2012
University of Science and Technology of China (USTC)

RESEARCH GRANTS

1. **PI: "A Data-Driven Aggregate Production-Distribution System for Perishable Product Retailers"**
Early Career Scheme - Hong Kong Research Grants Council , Amount: \$542,000 2021-2022
2. **PI: "Optimizing Rebalancing Operations in Bike-sharing Systems Considering Spatial-temporal Demand Substitution"**
CityU Strategic Research Grant , Amount: \$100,000 2021-2023
3. **PI: "Political Effects of Social Media on Social Incidents in Hong Kong"**
Public Policy Research, Policy Innovation and Co-ordination Office (PICO), Amount: \$488,750 2020
4. **PI: "Development of Big Data Research Analytic Software"**
ITF, Innovation and Technology Commission of the Hong Kong SAR , Amount: \$706,100 2019-2021
5. **PI: "AI-powered Optimization Framework for Inter-connected Warehouse Inventory Rebalancing"** Start-up Grant at CityU - City University of Hong Kong , Amount: \$200,000 2019-2021

PUBLICATIONS

Journal Papers

1. **Iterative Prediction-and-Optimization for E-logistics Distribution Network Design.** 2021
Junming Liu, Weiwei Chen, Jingyuan Yang, Hui Xiong, and Can Chen
INFORMS Journal on Computing, forthcoming. (UTD 24).
2. **Traffic Demand Prediction Based on Dynamic Transition Convolutional Neural Network** 2020
Bowen Du, Xiao Hu, Leilei Sun, Junming Liu, Yanan Qiao, and Weifeng Lv
IEEE Transactions on Intelligent Transportation Systems
3. **Development of An Intelligent NLP-Based Audit Plan Knowledge Discovery System** 2019
Qiao Li and Junming Liu
Journal of Emerging Technologies in Accounting
4. **Coordinating Supplier Selection and Project Scheduling in Resource-Constrained Construction Supply Chains,** Weiwei Chen, Lei Lei, Zhengwei Wang, Mingfei Teng, Junming Liu 2018
International Journal of Production Research
5. **A Multi-Label Multi-View Learning Framework for In-App Service Usage Analysis** 2017
Yanjie Fu, Junming Liu, Xiaolin Li and Hui Xiong
ACM Transactions on Intelligent Systems and Technology (TIST)

Peer-reviewed Conference Proceedings

6. **Storytelling in E-marketplace Live Streaming: The Effects of Narrative Content and Delivery on Sales Performance**
Yunhui Wang, **Junming Liu**, Yulin Fang
In Proceedings of the 2021 Pacific Asia Conference on Information Systems (PACIS 2021). Accepted 2021
7. **Live Streaming E-commerce: The Impact of the Intensity, Duration, and Phases of Peak Interaction on Sales Performance**
Yunhui Wang, **Junming Liu**, Yulin Fang
The 14th China Summer Workshop on Information Management (CISWIM). Accepted 2021
8. **Incremental Spatio-Temporal Graph Learning for Online Query-POI Matching**
Zixuan Yuan, Hao Liu, **Junming Liu**, Yanchi Liu, Yang Yang, Renjun Hu, Hui Xiong
In Proceedings of the Web Conference 2021 (WWW 2021) (CCF A). Accepted 2021
9. **Job2Vec: Job Title Benchmarking with Collective Multi-View Representation Learning**
Denghui Zhang, **Junming Liu**, Hengshu Zhu, Yanchi Liu, Lichen Wang, Pengyang Wang and Hui Xiong
In Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM 2019). Accepted 2019
10. **Effective and Real-time In-App Activity Analysis in Encrypted Internet Traffic Streams**
Junming Liu, Yanjie Fu, Jingci Ming, Yong Ren, Leilei Sun and Hui Xiong
In Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2017). (CCF A). Accepted 2017
11. **Functional Zone Based Hierarchical Demand Prediction For Bike System Expansion**
Junming Liu, Leilei Sun, Qiao Li, Jingci Ming, Yanchi Liu and Hui Xiong
In Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2017). (CCF A). Accepted 2017
12. **Warehouse Site Selection for Online Retailers in Inter-connected Warehouse Networks**
Can Chen, **Junming Liu**, Qiao Li, Yijun Wang, Hui Xiong, and Shanshan Wu
In Proceedings of the 2017 IEEE International Conference on Data Mining (ICDM2017), 2017. Accepted 2017
13. **Rebalancing bike sharing systems: a multi-source data smart optimization**
Junming Liu, Leilei Sun, Weiwei Chen, Hui Xiong
In Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD2016). (CCF A). Accepted 2016
14. **Service Usage Analysis in Mobile Messaging Apps: A Multi-Label Multi-View Perspective.**
Yanjie Fu, **Junming Liu**, Xiaolin Li, Xinjiang Lu, Hui Xiong
In Proceedings of the 2016 IEEE International Conference on Data Mining (ICDM 2016). (AR:19.6%). Accepted 2016
15. **Exploiting Human Mobility Patterns for Gas Station Site Selection**
Hongting Niu, **Junming Liu**, Yanjie Fu, Yanchi Liu, and Bo Lang
In Proceedings of the 21st International Conference on Database Systems for Advanced Applications (DAS-FAA 2016), 2016. Accepted 2016
16. **Station Site Optimization in Bike Sharing Systems**
Junming Liu, Qiao Li, Meng Qu, Weiwei Chen, Jingyuan Yang, Xiong Hui, Hao Zhong and Y. Fu
In Proceedings of the 2015 IEEE International Conference on Data Mining (ICDM 2015). Accepted 2015
17. **Multi-source Information Fusion for Personalized Restaurant Recommendation**
Jing Sun, Yun Xiong, Yangyong Zhu, **Junming Liu**, Chu Guan, Hui Xiong
In Proceedings of the 38th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2015), 2015. Accepted 2015
18. **A Cost-Effective Recommender System for Taxi Drivers**
Meng Qu, Hengshu Zhu, **Junming Liu**, Guannan Liu, Hui Xiong
In Proceedings of the 20th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2014), 2014. (CCF A). Accepted 2014

INDUSTRIAL EXPERIENCES

Research Director at LineZone Data Technology

2018

Research Intern at Futurewei US R&D

Summer 2016

TEACHING EXPERIENCE

City University of Hong Kong - Overall Rating: 6.5/7.0

- Business Data Analytics (IS6400)
- Business Intelligence and Analytics (IS4861)
- Machine Learning for Business (IS3834)

Rutgers University

- Data Mining (Graduate Course Fall 2018)
- Production and Operations Management (Undergraduate Course Summer 2017)

PROFESSIONAL ACTIVITIES

Conference Service

- SPC, the International Joint Conference on Artificial Intelligence, IJCAI 2021
- PC, the AAAI Conference on Artificial Intelligence, AAAI 2019 and 2021
- Session Chair, INFORMS Annual Meeting, 2019, 2020
- AE, Pacific Asia Conference on Information Systems, PACIS, Dubai, UAE, 2020,2021
- PC, the 28th ACM International Conference on Information and Knowledge Management, 2019
- PC, the 39th IEEE International Conference on Distributed Computing Systems, 2019
- PC, the 11th International Conference on Knowledge Science, Engineering and Management, 2017,2018
- PC, the 8th IEEE International Conference on Big Knowledge, 2017