

## ZHENG Baihua

School of Computing and Information Systems  
Singapore Management University (SMU)  
80 Stamford Road  
Singapore 178902

Email: bhzheng@smu.edu.sg

Office Phone: +65 68280915



## Education

PhD, Hong Kong University of Science & Technology, 2003

Bachelor of Engineering, Zhejiang University, China, 1999

## Academic Appointments

Professor of Computer Science, School of Computing and Information Systems, SMU, Apr 2021 - Present

Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2020 - Mar 2021

Associate Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2011 - Dec 2019

Assistant Professor of Information Systems, School of Computing and Information Systems, SMU, Jan 2004 - Dec 2010

Lecturer of Information Systems, School of Computing and Information Systems, SMU, Jul 2003 - Dec 2003

## Academic Administrative Positions

Director, Master of Science in Computing, School of Computing and Information Systems, SMU, Jul 2018 - Present

Associate Dean (SCIS Post-Graduate Research Programmes), School of Computing and Information Systems, SMU, Jul 2014 - Present

PGR Coordinator (Masters of Applied Information Systems (MAIS)), School of Computing and Information Systems, SMU, Jul 2012 - Jun 2014

PGR Coordinator, MAIS, School of Computing and Information Systems, SMU, Jul 2011 - Jun 2012

## RESEARCH

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### Publications

#### Journal Articles [Refereed]

Cross-view location alignment enhanced spatial-topological aware dual transformer for travel time

estimation, by ZHANG, Hanyuan; ZHANG, Xinyu; JIANG, Qize; LI, Liang; ZHENG, Baihua; SUN, Weiwei. (2024). *IEEE Transactions on Intelligent Transportation Systems*, 25 (12), 20508-20522. <https://doi.org/10.1109/TITS.2024.3463501> (Published)

Fine-grained passenger load prediction inside metro network via smart card data, by TIAN, Xiancai; ZHANG, Chen; ZHENG, Baihua. (2024). *International Journal of Intelligent Systems*, 2024 1-17. <https://doi.org/10.1155/2024/6643018> (Published)

GTS: GPU-based Tree Index for Fast Similarity Search, by ZHU, Yifan; MA, Ruiyao; ZHENG, Baihua; KE, Xiangyu; CHEN, Lu; GAO, Yunjun. (2024). *Proceedings of the ACM on Management of Data*, 2 (3), 1-27. <https://doi.org/10.1145/3654945> (Published)

From a timeline contact graph to close contact tracing and infection diffusion intervention, by ZHANG, Yipeng; BAO, Zhifeng; LI, Yuchen; ZHENG, Baihua; WANG, Xiaoli. (2024). *IEEE Transactions on Knowledge and Data Engineering*, 36 (12), 1-12. <https://doi.org/10.1109/TKDE.2024.3423476> (Advance Online)

CollaborEM: A self-supervised entity matching framework using multi-features collaboration, by GE, Congcong; WANG, Pengfei; CHEN, Lu; LIU, Xiaoze; ZHENG, Baihua; GAO, Yunjun. (2023). *IEEE Transactions on Knowledge and Data Engineering*, 35 (12), 12139-12152. <https://doi.org/10.1109/TKDE.2021.3134806> (Published)

A data-driven approach for scheduling bus services subject to demand constraints, by BRAHMANAGE, Janaka Chathuranga; KANDAPPU, Thivya; ZHENG, Baihua. (2023). *IEEE Transactions on Knowledge and Data Engineering*, 35 (7), 6534-6547. <https://doi.org/10.1109/TKDE.2022.3188243> (Published)

LDPTTrace: Locally Differentially Private Trajectory Synthesis, by DU, Yuntao; HU, Yujia; ZHANG, Zhikun; FANG, Ziquan; CHEN, Lu; ZHENG, Baihua; GAO, Yunjun. (2023). *Proceedings of the VLDB Endowment*, 16 (8), 1897-1909. <https://doi.org/10.14778/3594512.3594520> (Published)

Multi-view metro station clustering based on passenger flows: a functional data-edged network community detection approach, by ZHANG, Chen; ZHENG, Baihua; TSUNG, Fugee. (2023). *Data Mining and Knowledge Discovery*, 37 (3), 1154-1208. <https://doi.org/10.1007/s10618-023-00916-w> (Published)

Segment-Wise Time-Varying Dynamic Bayesian Network with Graph Regularization, by YANG, Xing; ZHANG, Chen; ZHENG, Baihua. (2022). *ACM Transactions on Knowledge Discovery from Data*, 16 (6), 1-23. <https://dl.acm.org/doi/10.1145/3522589> (Published)

Towards an Optimal Bus Frequency Scheduling: When the Waiting Time Matters, by MO, Songsong; BAO, Zhifeng; ZHENG, Baihua; PENG, Zhiyong. (2022). *IEEE Transactions on Knowledge and Data Engineering*, 34 (9), 4484-4498. <https://doi.org/10.1109/TKDE.2020.3036573> (Published)

Extract Human Mobility Patterns Powered by City Semantic Diagram, by SHAN, Zhangqing; SUN, Weiwei; ZHENG, Baihua. (2022). *IEEE Transactions on Knowledge and Data Engineering*, 34 (8), 3765-3778. <https://doi.org/10.1109/TKDE.2020.3026235> (Published)

DESIRE: An Efficient Dynamic Cluster-based Forest Indexing for Similarity Search in Multi-Metric Spaces, by ZHU, Yifan; CHEN, Lu; GAO, Yunjun; ZHENG, Baihua; WANG, Pengfei. (2022). *Proceedings of the VLDB Endowment*, 15 (10), 2121-2133. <https://www.vldb.org/pvldb/vol15/p2121-gao.pdf> (Published)

A Survey on Modern Deep Neural Network for Traffic Prediction: Trends, Methods and Challenges, by TEDJOPUMOMO, David Alexander; BAO, Zhifeng; ZHENG, Baihua; CHOUDHURY, Farhana Murtaza; QIN, Kai. (2022). *IEEE Transactions on Knowledge and Data Engineering*, 34 (4), 1544-1561. <https://doi.org/10.1109/TKDE.2020.3001195> (Published)

CrowdTC: Crowd-powered Learning for Text Classification, by YANG, Keyu; GAO, Yunjun; LIANG, Lei; BIAN, Song; CHEN, Lu; ZHENG, Baihua. (2022). *ACM Transactions on Knowledge Discovery from Data*, 16 (1), 15:1-15:3. (Published)

Expediting the Accuracy-Improving Process of SVMs for Class Imbalance Learning, by CAO, Bin; LIU, Yuqi; HOU, Chenyu; FAN, Jing; ZHENG, Baihua; YIN, Jianwei. (2021). *IEEE Transactions on Knowledge and Data Engineering*, 33 (11), 3550-3567. (Published)

TRIPDECODER: Study travel time attributes and route preferences of metro systems from smart card data, by TIAN, Xiancai; ZHENG, Baihua; WANG, Yazhe; HUANG, Hsiao-Ting; HUNG, Chih-Chieh. (2021). *ACM/IMS Transactions on Data Science*, 2 (3), 1-21. <https://doi.org/10.1145/3430768> (Published)

Querying Recurrent Convoys over Trajectory Data, by YADAMJAV, Munkh-Erdene; BAO, Zhifeng; ZHENG,

- Baihua; CHOUDHURY, Farhana M.; SAMET, Hanan. (2020). *ACM Transactions on Intelligent Systems and Technology*, 11 (5), 111:1-24. <https://doi.org/10.1145/3400730> (Published)
- Towards distributed node similarity search on graphs, by ZHANG, Tianming; GAO, Yunjun; ZHENG, Baihua; CHEN, Lu; WEN, Shiting; GUO, Wei. (2020). *World Wide Web*, 23 (6), 3025-3053. <https://doi.org/10.1007/s11280-020-00819-6> (Published)
- Efficient distributed reachability querying of massive temporal graphs, by ZHANG, Tianming; GAO, Yunjun; LU, Chen; GUO, Wei; PU, Shiliang; ZHENG, Baihua; CHRISTIAN S. Jensen. (2019). *VLDB Journal*, 28 (6), 871-896. <https://doi.org/10.1007/s00778-019-00572-x> (Published)
- Distributed Similarity Queries in Metric Spaces, by YANG, Keyu; DING, Xin; ZHANG, Yuanliang; CHEN, Lu; ZHENG, Baihua; GAO, Yunjun. (2019). *Data Science and Engineering*, 4 (2), 93-108. <https://doi.org/10.1007/s41019-019-0095-7> (Published)
- SIMkNN: A Scalable Method for in-Memory *k*-NN Search over Moving Objects in Road Networks, by CAO, Bin; HOU, Chenyu; LI, Suifei; FAN, Jing; YIN, Jianwei; ZHENG, Baihua; BAO, Jie. (2018). *IEEE Transactions on Knowledge and Data Engineering*, 30 (10), 1957-1970. <https://doi.org/10.1109/TKDE.2018.2808971> (Published)
- Understanding the effects of taxi ride-sharing - A case study of Singapore, by WANG, Yazhe; ZHENG, Baihua; LIM, Ee Peng. (2018). *Computers, Environment and Urban Systems*, 69 124-132. <https://doi.org/10.1016/j.compenvurbsys.2018.01.006> (Published)
- A Novel Representation and Compression for Queries on Trajectories in Road Networks, by YANG, Xiaochun; WANG, Bin; YANG, Kai; LIU, Chengfei; ZHENG, Baihua. (2018). *IEEE Transactions on Knowledge and Data Engineering*, 30 (4), 613-629. <https://doi.org/10.1109/TKDE.2017.2776927> (Published)
- CLSTERS: A general system for reducing errors of trajectories under challenging localization situations, by WU, Hao; SUN, Weiwei; ZHENG, Baihua; YANG, Li; ZHOU, Wei. (2017). *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 1 (3), 1-28. <https://doi.org/10.1145/3130981> (Published)
- On efficiently finding reverse *k*-nearest neighbors over uncertain graphs, by GAO, Yunjun; MIAO, Xiaoye; CHEN, Gang; ZHENG, Baihua; CAI, Deng; CUI, Huiyong. (2017). *VLDB Journal*, 26 (4), 467-492. <https://doi.org/10.1007/s00778-017-0460-y> (Published)
- Indexing metric uncertain data for range queries and range joins, by CHEN, Lu; GAO, Yunjun; ZHONG, Aoxiao; JENSEN, Christian S.; CHEN, Gang; ZHENG, Baihua. (2017). *VLDB Journal*, 26 (4), 585-610. <https://doi.org/10.1007/s00778-017-0465-6> (Published)
- SAP: Improving Continuous Top-K Queries Over Streaming Data, by ZHU, Rui; WANG, Bin; YANG, Xiaochun; ZHENG, Baihua; WANG, Guoren. (2017). *IEEE Transactions on Knowledge and Data Engineering*, 29 (6), 1310-1328. <https://doi.org/10.1109/TKDE.2017.2662236> (Published)
- COMPRESS: A Comprehensive Framework of Trajectory Compression in Road Networks, by HAN, Yunheng; SUN, Weiwei; ZHENG, Baihua. (2017). *ACM Transactions on Database Systems*, 42 (2), 1-49. <https://doi.org/10.1145/3015457> (Published)
- Metric Similarity Joins Using MapReduce, by GAO, Yunjun; YANG, Keyu; CHEN, Lu; ZHENG, Baihua; CHEN, Gang; CHEN, Chun. (2017). *IEEE Transactions on Knowledge and Data Engineering*, 29 (3), 656-669. <https://doi.org/10.1109/TKDE.2016.2631599> (Published)
- Answering why-not and why questions on reverse top-k queries, by LIU, Qing; GAO, Yunjun; CHEN, Gang; ZHENG, Baihua; ZHOU, Linlin. (2016). *VLDB Journal*, 25 (6), 867-892. <https://doi.org/10.1007/s00778-016-0443-4> (Published)
- Finding Causality and Responsibility for Probabilistic Reverse Skyline Query Non-Answers, by GAO, Yunjun; LIU, Qing; CHEN, Gang; ZHOU, Linlin; ZHENG, Baihua. (2016). *IEEE Transactions on Knowledge and Data Engineering*, 28 (11), 2974-2987. <https://doi.org/10.1109/TKDE.2016.2599869> (Published)
- Efficient Collective Spatial Keyword Query Processing on Road Networks, by GAO, Yunjun; ZHAO, Jingwen; ZHENG, Baihua; CHEN, Gang. (2016). *IEEE Transactions on Intelligent Transportation Systems*, 17 (2), 469-480. <https://doi.org/10.1109/TITS.2015.2477837> (Published)
- Negative Factor: Improving Regular-Expression Matching in Strings, by YANG, Xiaochun; QIU, Tao; WANG, Bin; ZHENG, Baihua; WANG, Yaoshu; LI, Chen. (2015). *ACM Transactions on Database Systems*, 40 (4),

1-46. <http://dx.doi.org/10.1145/2847525> (Published)

Processing Incomplete *k*-Nearest Neighbor Search, by MIAO, Xiaoye; GAO, Yunjun; CHEN, Gang; ZHENG, Baihua; CUI, Huiyong. (2016). *IEEE Transactions on Fuzzy Systems*, 24 (6), 1349-1363. <http://doi.org/10.1109/TFUZZ.2016.2516562> (Published)

Top-*k* Dominating Queries on Incomplete Data, by MIAO, Xiaoye; GAO, Yunjun; ZHENG, Baihua; CHEN, Gang; CUI, Huiyong. (2016). *IEEE Transactions on Knowledge and Data Engineering*, 28 (1), 252-266. <http://dx.doi.org/10.1109/TKDE.2015.2460742> (Published)

An automaton-based index scheme supporting twig queries for on-demand XML data broadcast, by LIU, Peng; SUN, Weiwei; ZHANG, Jian; ZHENG, Baihua. (2015). *Journal of Parallel and Distributed Computing*, 86 82-97. <http://dx.doi.org/10.1016/j.jpdc.2015.07.010> (Published)

Fast optimal aggregate point search for a merged set on road networks, by SUN, Weiwei; CHEN, Chong; ZHENG, Baihua; CHEN, Chunan; ZHU, Liang; LIU, Weimo; HUANG, Yan. (2015). *Information Sciences: Informatics and Computer Science Intelligent Systems Applications*, 310 52-68. <https://doi.org/10.1016/j.ins.2015.03.028> (Published)

Should We Use the Sample? Analyzing Datasets Sampled from Twitter's Stream API, by WANG, Yazhe; CALLAN, Jamie; ZHENG, Baihua. (2015). *ACM Transactions on the Web*, 9 (3), 13:1-23. <https://doi.org/10.1145/2746366> (Published)

Efficient Reverse Top-*k* Boolean Spatial Keyword Queries on Road Networks, by GAO, Yunjun; XU, Qin; ZHENG, Baihua; CHEN, Gang. (2015). *IEEE Transactions on Knowledge and Data Engineering*, 27 (5), 1205-1218. <http://dx.doi.org/10.1109/TKDE.2014.2365820> (Published)

On efficient *k*-optimal-location-selection query processing in metric spaces, by GAO, Yunjun; QI, Shuyao; CHEN, Lu; ZHENG, Baihua; LI, Xinhua. (2015). *Information Sciences: Informatics and Computer Science Intelligent Systems Applications*, 298 98-117. <https://doi.org/10.1016/j.ins.2014.11.038> (Published)

An Air Index for Spatial Query Processing in Road Networks, by SUN, Weiwei; CHEN, Chunan; ZHENG, Baihua; CHEN, Chong; LIU, Peng. (2015). *IEEE Transactions on Knowledge and Data Engineering*, 27 (2), 382-395. <http://dx.doi.org/10.1109/TKDE.2014.2330836> (Published)

On processing reverse *k*-skyband and ranked reverse skyline queries, by GAO, Yunjun; LIU, Qing; ZHENG, Baihua; LI, Mou; GANG, Chen; LI, Qing. (2015). *Information Sciences: Informatics and Computer Science Intelligent Systems Applications*, 293 11-34. <https://doi.org/10.1016/j.ins.2014.08.052> (Published)

High utility K-anonymization for social network publishing, by WANG, Yazhe; XIE, Long; ZHENG, Baihua; LEE, Ken C.K.. (2014). *Knowledge and Information Systems*, 41 (3), 697-725. <http://dx.doi.org/10.1007/s10115-013-0674-2> (Published)

An Air Index for Spatial Query Processing in Road Networks, by SUN, Weiwei; CHEN, Chunan; ZHENG, Baihua; CHEN, Chong; LIU, Peng. (2015). *IEEE Transactions on Knowledge and Data Engineering*, 27 (2), 382-395. <https://doi.org/10.1109/TKDE.2014.2330836> (Published)

Air Indexing for On-Demand XML Data Broadcast, by SUN, Weiwei; QIN, Rongrui; WU, Jinjin; ZHENG, Baihua. (2014). *IEEE Transactions on Parallel and Distributed Systems*, 25 (6), 1371-1381. <http://dx.doi.org/10.1109/TPDS.2013.87> (Published)

On efficient reverse skyline query processing, by GAO, Yunjun; LIU, Qing; ZHENG, Baihua; CHEN, Gang. (2014). *Expert Systems with Applications*, 41 (7), 3237-3249. <http://dx.doi.org/10.1016/j.eswa.2013.11.012> (Published)

Efficient Index-Based Approaches for Skyline Queries in Location-Based Applications, by LEE, Ken C. K.; ZHENG, Baihua; CHEN, Cindy; CHOW, Chi-Yin. (2013). *IEEE Transactions on Knowledge and Data Engineering*, 25 (11), 2507-2520. <https://doi.org/10.1109/TKDE.2012.216> (Published)

Hypergraph index: An index for context-aware nearest neighbor query on social networks, by WANG, Yazhe; ZHENG, Baihua. (2013). *Social Network Analysis and Mining*, 3 (4), 813-828. <https://doi.org/10.1007/s13278-013-0095-y> (Published)

ROAD: A New Spatial Object Search Framework for Road Networks, by LEE, Ken C. K.; LEE, Wang-Chien; ZHENG, Baihua; TIAN, Yuan. (2012). *IEEE Transactions on Knowledge and Data Engineering*, 24 (3), 547-560. <https://doi.org/10.1109/TKDE.2010.243> (Published)

- Direction-based surround queries for mobile recommendations, by GUO, Xi; ZHENG, Baihua; ISHIKAWA, Yoshiharu; GAO, Yunjun. (2011). *VLDB Journal*, 20 (5), 743-766. <https://doi.org/10.1007/s00778-011-0241-y> (Published)
- Location-dependent spatial query containment, by LEE, Ken C. K.; UNGER, Brandon; ZHENG, Baihua; LEE, Wang-Chien. (2011). *Data & Knowledge Engineering*, 70 (10), 842-865. <https://doi.org/10.1016/j.datak.2011.06.001> (Published)
- Continuous visible nearest neighbor query processing in spatial databases, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LI, Qing; GUO, Xiaofa. (2011). *VLDB Journal*, 20 (3), 371-396. <http://dx.doi.org/10.1007/s00778-010-0200-z> (Published)
- Continuous Nearest-Neighbor Search in the Presence of Obstacles, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gang; CHEN, Chun; LI, Qing. (2011). *ACM Transactions on Database Systems*, 36 (2), <http://dx.doi.org/10.1145/1966385.1966387> (Published)
- IR-Tree: An Efficient Index for Geographic Document Search, by LI, Zhisheng; LEE, Ken C. K.; ZHENG, Baihua; LEE, Wang-Chien; LEE, Dik Lun; WANG, Xufa. (2011). *IEEE Transactions on Knowledge and Data Engineering*, 23 (4), 585-599. <http://dx.doi.org/10.1109/TKDE.2010.149> (Published)
- Efficient mutual nearest neighbor query processing for moving object trajectories, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LI, Qing; CHEN, Chun; CHEN, Gang. (2010). *Information Sciences: Informatics and Computer Science Intelligent Systems Applications*, 180 (11), 2176-2195. <https://doi.org/10.1016/j.ins.2010.02.010> (Published)
- Efficient processing of exact top-k queries over disk-resident sorted lists, by PANG, Hwee Hwa; DING, Xuhua; ZHENG, Baihua. (2010). *VLDB Journal*, 19 (3), 437-456. <https://doi.org/10.1007/s00778-009-0174-x> (Published)
- Z-SKY: an efficient skyline query processing framework based on Z-order, by LEE, Ken C. K.; LEE, Wang-Chien; ZHENG, Baihua; LI, Huajing; TIAN, Yuan. (2010). *VLDB Journal*, 19 (3), 333-362. <http://dx.doi.org/10.1007/s00778-009-0166-x> (Published)
- Algorithms for constrained k-nearest neighbor queries over moving object trajectories, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LI, Qing; CHEN, Chun. (2010). *GeoInformatica*, 14 (2), 241-276. <http://dx.doi.org/10.1007/s10707-009-0084-5> (Published)
- Efficient valid scope for location-dependent spatial queries in mobile environments, by LEE, Ken C. K.; LEE, Wang-Chien; LEONG, Hong Va; UNGER, Brandon; ZHENG, Baihua. (2010). *Journal of Software*, 5 (2), 133-145. <http://doi.org/10.4304/jsw.5.2.133-145> (Published)
- Tuning On-Air Signatures for Balancing Performance and Confidentiality, by ZHENG, Baihua; LEE, Wang-Chien; LIU, Peng; LEE, Dik Lun; DING, Xuhua. (2009). *IEEE Transactions on Knowledge and Data Engineering*, 21 (12), 1783-1797. <http://dx.doi.org/10.1109/TKDE.2009.43> (Published)
- Visible Reverse *k*-Nearest Neighbor Query Processing in Spatial Databases, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LEE, Wang-Chien; LEE, Ken C. K.; LI, Qing. (2009). *IEEE Transactions on Knowledge and Data Engineering*, 21 (9), 1314-1327. <http://dx.doi.org/10.1109/TKDE.2009.113> (Published)
- Accelerating sequence searching: dimensionality reduction method, by SONG, Guojie; CUI, Bin; ZHENG, Baihua; XIE, Kunqing; YANG, Dongqing. (2009). *Knowledge and Information Systems*, 20 (3), 301-322. <http://dx.doi.org/10.1007/s10115-008-0180-0> (Published)
- A distributed spatial index for error-prone wireless data broadcast, by ZHENG, Baihua; LEE, Wang-Chien; LEE, Ken C. K.; LEE, Dik Lun; SHAO, Min. (2009). *VLDB Journal*, 18 (4), 959-986. <http://dx.doi.org/10.1007/s00778-009-0137-2> (Published)
- On efficient mutual nearest neighbor query processing in spatial databases, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LI, Qing. (2009). *Data & Knowledge Engineering*, 68 (8), 705-727. <http://dx.doi.org/10.1016/j.datak.2009.04.004> (Published)
- Optimal-Location-Selection Query Processing in Spatial Databases, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LI, Qing. (2009). *IEEE Transactions on Knowledge and Data Engineering*, 21 (8), 1162-1177. <https://doi.org/10.1109/TKDE.2009.81> (Published)
- Ranked reverse nearest neighbor search, by LEE, Ken C. K.; ZHENG, Baihua; LEE, Wang-Chien. (2008). *IEEE*

*Transactions on Knowledge and Data Engineering*, 20 (7), 894-910.  
<http://dx.doi.org/10.1109/TKDE.2008.36> (Published)

Round-Eye: A system for tracking nearest surroundings in moving object environments, by LEE, Ken C. K.; Schiffman, Josh; ZHENG, Baihua; LEE, Wang-Chien. (2007). *Journal of Systems and Software*, 80 (12), 2063-2076. <http://dx.doi.org/10.1016/j.jss.2007.03.007> (Published)

Materialized in-network view for spatial aggregation queries in wireless sensor network, by LEE, Ken C. K.; ZHENG, Baihua; LEE, Wang-chien; Winter, Julian. (2007). *ISPRS Journal of Photogrammetry and Remote Sensing*, 62 (5), 382-402. <http://dx.doi.org/10.1016/j.isprsjprs.2007.03.006> (Published)

On searching continuous  $k$  nearest neighbors in wireless data broadcast systems, by ZHENG, Baihua; LEE, Wang-Chien; LEE, Dik Lun. (2007). *IEEE Transactions on Mobile Computing*, 6 (7), 748-761. <http://dx.doi.org/10.1109/TMC.2007.1004> (Published)

Grid-partition index: a hybrid method for nearest-neighbor queries in wireless location-based services, by ZHENG, Baihua; XU, Jianliang; LEE, Wang-Chien; LEE, Dik Lun. (2006). *VLDB Journal*, 15 (1), 21-39. <http://dx.doi.org/10.1007/s00778-004-0146-0> (Published)

Information dissemination - via wireless broadcast, by ZHENG, Baihua; LEE, Dik Lun. (2005). *Communications of the ACM*, 48 (5), 105-110. <http://dx.doi.org/10.1145/1060710.1060717> (Published)

The D-tree: An index structure for planar point queries in location-based wireless services, by XU, Jianliang; ZHENG, Baihua; LEE, Wang-chien; LEE, Dik Lun. (2004). *IEEE Transactions on Knowledge and Data Engineering*, 16 (12), 1526-1542. <https://doi.org/10.1109/TKDE.2004.97> (Published)

Spatial queries in wireless broadcast systems, by ZHENG, Baihua; LEE, Wang-Chien; LEE, Dik Lun. (2004). *Wireless Networks*, 10 (6), 723-736. <http://doi.org/10.1023/B:WINE.0000044031.03597.97> (Published)

On semantic caching and query scheduling for mobile nearest-neighbor search, by ZHENG, Baihua; LEE, Wang-Chien; LEE, Dik Lun. (2004). *Wireless Networks*, 10 (6), 653-664. <http://doi.org/10.1023/B:WINE.0000044026.38487.b2> (Published)

Cache invalidation and replacement strategies for location-dependent data in mobile environments, by ZHENG, Baihua; XU, Jianliang; LEE, Dik Lun. (2002). *IEEE Transactions on Computers*, 51 (10), 1141-1153. <http://dx.doi.org/10.1109/tc.2002.1039841> (Published)

Data Management in Location-Dependent Information Services: Challenges and Issues, by LEE, Dik Lun; XU, Jianliang; ZHENG, Baihua; LEE, Wang-Chien. (2002). *IEEE Pervasive Computing*, 1 (3), 65-72. <http://dx.doi.org/10.1109/mprv.2002.1037724> (Published)

### Book Chapters

Spatial Data on the Move, by Tok, Wee Hyong; Bressan, Stephane; Kalnis, Panagiotis; ZHENG, Baihua. (2006). In Ismail Khalil Ibrahim (Ed.), *Handbook of Research on Mobile Multimedia* (pp. 103-118) Hershey, PA: Idea Group. <http://worldcat.org/isbn/9781591408666> (Published)

Mobile Cache Management, by Xu, Jianliang; Hu, Haibo; TANG, Xueyan; ZHENG, Baihua. (2005). *Wireless Information Highways* Hershey, PA: IRM Press. <http://www.worldcat.org/oclc/57426220> (Published)

### Encyclopedia Entries

Air Indexes for Spatial Databases, by ZHENG, Baihua. (2009). In Ozsu, M. Tamer; Liu, Ling (Ed.), *Encyclopedia of Database Systems* (pp. 71-77) New York: Springer Verlag. [http://dx.doi.org/10.1007/978-0-387-39940-9\\_15](http://dx.doi.org/10.1007/978-0-387-39940-9_15) (Published)

### Conference Proceedings

Closest pairs search over data stream, by ZHU, Rui Zhu; WANG, Bin; YANG, Xiaochun; ZHENG, Baihua. (2024.0). *Proceedings of the ACM on Management of Data, Santiago, Chile, June 9-15*, (pp. 1-26) New York: ACM. <https://dl.acm.org/doi/10.1145/3617326> (Published)

Multiple continuous top-K queries over data stream, by ZHU, Rui; JIA, Yujin; YANG, Xiaochun; ZHENG, Baihua; WANG, Bin; ZONG, Chuanyu. (2024.0). *Proceedings of the 2024 IEEE 40th International*

*Conference on Data Engineering (ICDE), Utrecht, Netherlands, May 13-16*, (pp. 1575-1588) Los Alamitos, CA: IEEE. <https://doi.org/10.1109/ICDE60146.2024.00129> (Published)

HJG: An effective hierarchical joint graph for ANNS in multi-metric spaces, by ZHU, Yifan; CHEN, Lu; GAO, Yunjun; MA, Ruiyao; ZHENG, Baihua; ZHAO, Jingwen. (2024.0). *Proceedings of the 2024 IEEE 40th International Conference on Data Engineering (ICDE), Utrecht, Netherlands, May 13-16*, (pp. 4275-4287) Los Alamitos, CA: IEEE. <https://doi.org/10.1109/ICDE60146.2024.00326> (Published)

Trajectory set empowered hypergraph transformer for mobile sensor based traffic prediction, by ZHANG, Hanyuan; ZHANG, Xinyu; JIANG, Qize; LI, Liang; ZHENG, Baihua; SUN, Weiwei. (2024.0). *ICASSP 2024 - 2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Seoul, April 14-19*, Los Alamitos, CA: IEEE. <https://doi.org/10.1109/ICASSP48485.2024.10447016> (Published)

Modeling route representation with mixed-scale hierarchical transformer, by ZHANG, Hanyuan; CHEN, Yuqi; ZHANG, Xinyu; JIANG, Qize; LI, Liang; ZHENG, Baihua; SUN, Weiwei. (2024.0). *ICASSP 2024 - 2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Seoul, April 14-19*, Los Alamitos, CA: IEEE. <https://doi.org/10.1109/ICASSP48485.2024.10446095> (Published)

Spatial data management for green mobility, by Claramunt, Christophe; Basse, Christine; Zeinalipour-Yazdi, Demetrios; Zheng, Baihua; Trajcevski, Goce; Torp, Kristian. (2023.0). *SIGSPATIAL '23: Proceedings of the 31st ACM International Conference on Advances in Geographic Information Systems: Hamburg, November 13-16*, (pp. 1-4) New York: ACM. <https://doi.org/10.1145/3589132.3625626> (Published)

CampER: An effective framework for privacy-aware deep entity resolution, by GUO, Yuxiang; CHEN, Lu; ZHOU, Zhengjie; ZHENG, Baihua; FANG, Ziquan; ZHANG, Zhikun; MAO, Yuren; GAO, Yunjun. (2023.0). *KDD '23: Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Long Beach, CA, August 6-10*, (pp. 626-637) New York: ACM. <https://doi.org/10.1145/3580305.3599266> (Published)

RNTrajRec: Road network enhanced trajectory recovery with spatial-temporal transformer, by CHEN, Yuqi; ZHANG, Hanyuan; SUN, Weiwei; ZHENG, Baihua. (2023.0). *Proceedings of the 39th IEEE International Conference on Data Engineering (ICDE'23), Anaheim, CA, USA, 2023 April 3-7*, (pp. 829-842) Piscataway, NJ: IEEE. <https://doi.org/10.1109/ICDE55515.2023.00069> (Published)

MetroWatch: A predictive system to estimate travel attributes using smart card data, by BRAHMANAGE, Janaka; KANDAPPU, Thivya; ZHENG, Baihua. (2023.0). *Proceedings of the 39th IEEE International Conference on Data Engineering (ICDE'23), Anaheim, CA, USA, 2023 April 3-7*, (pp. 3607-3610) Piscataway, NJ: IEEE. <https://doi.org/10.1109/ICDE55515.2023.00279> (Published)

Adaptive structural similarity preserving for unsupervised cross modal hashing, by LI, Liang; ZHENG, Baihua; SUN, Weiwei. (2022.0). *Proceedings of the 30th ACM International Conference on Multimedia, Lisbon, Portugal, 2022 October 10-14*, (pp. 3712-3721) Lisbon, Portugal: ACM. <https://doi.org/10.1145/3503161.3548431> (Published)

LargeEA: Aligning Entities for Large-scale Knowledge Graphs, by GE, Congcong; LIU, Xiaoze; CHEN, Lu; GAO, Yunjun; ZHENG, Baihua. (2021.0). *Proceedings of the 48th International Conference on Very Large Databases, Sydney, Australia, 2022 September 5-9*, (pp. 233-245) Australia: ACM. (Published)

Multi-agent reinforcement learning for traffic signal control through universal communication method, by JIANG, Qize; QIN, Minhao; SHI, Shengmin; SUN, Weiwei; SUN, Weiwei; ZHENG, Baihua. (2022.0). *Proceedings of the 31st International Joint Conference on Artificial Intelligence (IJCAI-ECAI '22): Vienna, July 23-29*, (pp. 3854-3860) Vienna, Austria: AAAI Press. <https://www.ijcai.org/proceedings/2022/535> (Published)

Self-guided learning to denoise for robust recommendation, by GAO, Yunjun; DU, Yuntao; HU, Yujia; CHEN, Lu; ZHU, Xinjun; FANG, Ziquan; ZHENG, Baihua. (2022.0). *SIGIR '22: Proceedings of the 45th International ACM SIGIR Conference on Research and Development in Information Retrieval, Madrid, Spain, July 11-15*, (pp. 1412-1422) New York: ACM. <https://doi.org/10.1145/3477495.3532059> (Published)

HAKG: Hierarchy-Aware Knowledge Gated Network for Recommendation, by DU, Yuntao; ZHU, Xinjun; CHEN, Lu; ZHENG, Baihua; GAO, Yunjun. (2022.0). *SIGIR '22: Proceedings of the 45th International ACM SIGIR Conference on Research and Development in Information Retrieval, Madrid, Spain, July 11-15*, (pp. 1390-1400) New York: ACM. <https://doi.org/10.1145/3477495.3531987> (Published)

Context-aware graph convolutional network for dynamic origin-destination prediction, by NATHANIEL, Juan; ZHENG, Baihua. (2021.0). *2021 IEEE International Conference on Big Data (BigData): Orlando, FL*

*Virtual, December 15-18: Proceedings*, (pp. 1718-1724) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/BigData52589.2021.9671752> (Published)

Holistic prediction for public transport crowd flows: A spatio dynamic graph network approach, by HE, Bingjie; LI, Shukai; ZHANG, Chen; ZHENG, Baihua; TSUNG, Fugee. (2021.0). *Machine Learning and Knowledge Discovery in Databases: Research Track ECML PKDD 2021: Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases: Virtual, ,* (pp. 321-336) Cham: Springer. [https://doi.org/10.1007/978-3-030-86486-6\\_20](https://doi.org/10.1007/978-3-030-86486-6_20) (Published)

Dynamic lane traffic signal control with group attention and multi-timescale reinforcement learning, by JIANG, Qize; LI, Jingze; SUN, Weiwei; ZHENG, Baihua. (2021.0). *Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI-21), Virtual Conference, August 19-26*, (pp. 3642-3648) Montreal, Canada: IJCAI. <https://doi.org/10.24963/ijcai.2021/501> (Published)

Make it easy: An effective end-to-end entity alignment framework, by GE, Congcong; LIU, Xiaoze; CHEN, Lu Chen; ZHENG, Baihua; GAO, Yunjun. (2021.0). *Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'21), Virtual Conference, 2021 July 11-15*, (pp. 777-786) Virtual Event: ACM. (Published)

Minimizing the regret of an influence provider, by ZHANG, Yipeng; LI, Yuchen; BAO, Zhifeng; ZHENG, Baihua; JAGADISH, H. V.. (2021.0). *The proceedings of International Conference on Management of Data, Oct 20-25*, (pp. 2115-2127) New York : ACM. <https://doi.org/10.1145/3448016.3457257> (Published)

DisMASTD: An efficient distributed multi-aspect streaming tensor decomposition, by YANG, Keyu; GAO, Yunjun; SHEN, Yifeng; ZHENG, Baihua; CHEN, Lu. (2021.0). *2021 IEEE 37th International Conference on Data Engineering (ICDE): Virtual, April 19-22: Proceedings*, (pp. 1-12) Piscataway, NJ: IEEE. <https://doi.org/10.1109/ICDE51399.2021.00098> (Published)

Time period-based top-k semantic trajectory pattern query, by YADAMJAV, Munkh-Erdene; CHOUDHURY, Farhana Murtaza; BAO, Zhifeng; ZHENG, Baihua. (2021.0). *Proceedings of the 26th International Conference on Database Systems for Advanced Applications (DASFAA'21), Virtual Conference, 2021 April 11-14*, (pp. 439-456) Virtual Conference: (Published)

Bus frequency optimization: When waiting time matters in user satisfaction, by MO, Songsong; BAO, Zhifeng; ZHENG, Baihua; PENG, Zhiyong. (2020.0). *DASFAA 2020: Proceedings of the 25th International Conference on Database Systems for Advanced Applications, Jeju, South Korea, September 24-27*, (pp. 192-208) Cham: Springer. [https://doi.org/10.1007/978-3-030-59416-9\\_12](https://doi.org/10.1007/978-3-030-59416-9_12) (Published)

FASTS: A Satisfaction-Boosting Bus Scheduling Assistant, by SONG, Momo; BAO, Zhifeng; ZHENG, Baihua; PENG, Zhiyong. (2020.0). *Proceedings of the VLDB: 46th VLDB 2020, Tokyo, Japan, August 31 - September 4*, (pp. 2873-2876) Tokyo, Japan: <https://doi.org/10.14778/3415478.3415497> (Published)

Trajectory similarity learning with auxiliary supervision and optimal matching, by ZHANG, Hanyuan; ZHANG, Xingyu; JIANG, Qize; ZHENG, Baihua; SUN, Zhenbang; SUN, Weiwei; WANG, Changhu. (2020.0). *Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence, Yokohama, Japan, 2020 July 11-17*, (pp. 3209-3215) Yokohama, Japan: (Published)

Probabilistic Value Selection for Space Efficient Model, by NJOO, Gunarto Sindoro; ZHENG, Baihua; HSU, Kuo-Wei; PENG, Wen-Chih. (2020.0). *Proceedings of the 21st IEEE International Conference on Mobile Data Management, Versailles, France: IEEE. (Forthcoming)*

Deepdualmapper: A gated fusion network for automatic map extraction using aerial images and trajectories, by WU, Hao; ZHANG, Hanyuan; ZHANG, Xinyu; SUN, Weiwei; ZHENG, Baihua; JIANG, Yuning. (2020.0). *Proceedings of the 34th AAAI Conference on Artificial Intelligence, New York, 2020 February 7-12*, (pp. 1037-1045) New York: AAAI Press. <https://doi.org/10.1609/aaai.v34i01.5453> (Published)

Study group travel behaviour patterns from large-scale smart card data, by TIAN, Xiancai; ZHENG, Baihua. (2019.0). *2019 IEEE International Conference on Big Data: December 9-12, Los Angeles: Proceedings*, (pp. 1232-1237) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/BigData47090.2019.9005575> (Published)

Querying continuous recurrent convoys of interest, by YADAMJAV, Munkh-Erdene; BAO, Zhifeng; CHOUDHURY, Farhana Murtaza; SAMET, Hanan; ZHENG, Baihua. (2019.0). *Proceedings of the 27th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, SIGSPATIAL 2019*, (pp. 436-439) Chicago, IL, USA: <http://doi.org/10.1145/3347146.3359083> (Published)



Efficient algorithms for solving aggregate keyword routing problems, by JIANG, Qize; SUN, Weiwei; ZHENG, Baihua; CHEN, Kunjie. (2019.0). *Database systems for advanced applications: 24th International Conference, DASFAA 2019, Chiang Mai, Thailand, April 22-25: Proceedings*, (pp. 713-729) Cham: Springer. [https://doi.org/10.1007/978-3-030-18579-4\\_42](https://doi.org/10.1007/978-3-030-18579-4_42) (Published)

Using smart card data to model commuters' responses upon unexpected train delays, by TIAN, Xiancai; ZHENG, Baihua. (2018.0). *2018 IEEE International Conference on Big Data: Seattle, WA, December 10-13: Proceedings*, (pp. 1-10) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/BigData.2018.8622233> (Published)

Distributed k-nearest neighbor queries in metric spaces, by DING, Xin; ZHANG, Yuanliang; CHEN, Lu; GAO, Yunjun; ZHENG, Baihua. (2018.0). *Web and big data: Second International Joint Conference, APWeb-WAIM 2018, Macau, China, July 23-25: Proceedings*, (pp. 236-252) Cham: Springer. [https://doi.org/10.1007/978-3-319-96890-2\\_20](https://doi.org/10.1007/978-3-319-96890-2_20) (Published)

DEEPTRAVEL: A neural network based travel time estimation model with auxiliary supervision, by ZHANG, Hanyuan; WU, Hao; SUN, Weiwei; ZHENG, Baihua. (2018.0). *Proceedings of the 27th International Joint Conference on Artificial Intelligence: IJCAI 2018, Stockholm, Sweden, July 13-19*, (pp. 3655-3661) San Francisco, CA: IJCAI. <https://doi.org/10.24963/ijcai.2018/508> (Published)

Scalable hypergraph-based image retrieval and tagging system, by CHEN, Lu; GAO, Yunjun; ZHANG, Yuanliang; WANG, Sibao; ZHENG, Baihua. (2018.0). *2018 34th IEEE International Conference on Data Engineering (ICDE): Paris, April 16-19: Proceedings*, (pp. 257-268) Piscataway, NJ: IEEE. <https://doi.org/10.1109/ICDE.2018.00032> (Published)

A fast trajectory outlier detection approach via driving behavior modeling, by WU, Hao; SUN, Weiwei; ZHENG, Baihua. (2017.0). *CIKM '17: Proceedings of the 26th ACM Conference on Information and Knowledge Management, Singapore, November 6-10*, (pp. 837-846) New York: ACM. <https://doi.org/10.1145/3132847.3132933> (Published)

Pivot-based Metric Indexing, by CHEN, Lu; GAO, Yunjun; ZHENG, Baihua; JENSEN, Christian S.; YANG, Hanyu; YANG, Keyu. (2017.0). *Proceedings of the VLDB Endowment: 43rd International Conference, Munich Germany, 2017 August 28 - September 1*, (pp. 1058-1069) Stanford, CA: VLDB Endowment. (Published)

Modeling trajectories with recurrent neural networks, by WU, Hao; CHEN, Ziyang; SUN, Weiwei; ZHENG, Baihua; WANG, Wei. (2017.0). *Proceedings of the 26th International Joint Conference on Artificial Intelligence IJCAI-17, Melbourne, Australia, August 19-25*, (pp. 3083-3090) San Francisco, CA: IJCAI. <https://doi.org/10.24963/ijcai.2017/430> (Published)

Finding causality and responsibility for probabilistic reverse skyline query non-answers [Extended Abstract], by GAO, Yunjun; LIU, Qing; CHEN, Gang; ZHOU, Linlin; ZHENG, Baihua. (2017.0). *Proceedings of IEEE 33rd International Conference on Data Engineering, San Diego, CA, USA, 2017 April 19-22*, (pp. 53-54) San Diego, CA, USA: <https://doi.org/10.1109/ICDE.2017.33> (Published)

Is only one GPS position sufficient to locate you to the road network accurately?, by WU, Hao; SUN, Weiwei; ZHENG, Baihua. (2016.0). *UbiComp '16: Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Heidelberg, Germany, September 12-16, 2016*, (pp. 740-751) New York: ACM. <http://doi.org/10.1145/2971648.2971702> (Published)

Is Only One GPS Point Position Sufficient to Locate You to The Road Network Accurately?, by WU, Hao; SUN, Weiwei; ZHENG, Baihua. (2016.0). *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2016)*, (pp. 740-751) Heidelberg, Germany: ACM. <http://doi.org/10.1145/2971648.2971702> (Published)

Probabilistic robust route recovery with spatio-temporal dynamics, by WU, Hao; MAO, Jiangyun; SUN, Weiwei; ZHENG, Baihua; ZHANG, Hanyuan; CHEN, Ziyang; WANG, Wei. (2016.0). *KDD '16: Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining: San Francisco, California, August 13-17, 2016*, (pp. 1915-1924) New York: ACM. <http://doi.org/10.1145/2939672.2939843> (Published)

GLUE: A Parameter-Tuning-Free Map Updating System, by WU, Hao; TU, Chuanchuan; SUN, Weiwei; ZHENG, Baihua; SU, Hao; WANG, Wei. (2015.0). *CIKM '15: Proceedings of the 24th ACM International on Conference on Information and Knowledge Management: October 19-23, Melbourne*, (pp. 683-692) New York: ACM. <http://dx.doi.org/10.1145/2806416.2806425> (Published)

COBWEB: A Robust Map Update System using GPS Trajectories, by SHAN, Zhangqing; WU, Hao; SUN, Weiwei; ZHENG, Baihua. (2015.0). *UbiComp '15: Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, (pp. 927-937) New York: ACM. <http://dl.acm.org/citation.cfm?id=2750858.2804286> (Published)

Answering why-not questions on reverse top-k queries, by GAO, Yunjun; LIU, Qing; CHEN, Gang; ZHENG, Baihua; ZHOU, Linlin. (2015.0). *Proceedings of the VLDB Endowment: 41st VLDB 2015, August 31 - September 4, Kohala Coast, Hawaii*, (pp. 738-749) Saratoga, CA: VLDB Endowment. <https://doi.org/10.14778/2752939.2752943> (Published)

Indexing Metric Uncertain Data for Range Queries, by CHEN, Lu; GAO, Yunjun; LI, Xinhan; JENSEN, Christian S.; CHEN, Gang; ZHENG, Baihua. (2015.0). *SIGMOD '15: Proceedings of the 2015 ACM SIGMOD International Conference on Management of Data, May 31-June 4, Melbourne*, (pp. 951-965) New York: ACM. <http://dx.doi.org/10.1145/2723372.2723728> (Published)

Preserving Privacy in Social Networks Against Connection Fingerprint Attacks, by WANG, Yazhe; ZHENG, Baihua. (2015.0). *2015 31st IEEE International Conference on Data Engineering, ICDE 2015: 13-17 April 2015, Seoul: Proceedings*, (pp. 54-65) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICDE.2015.7113272> (Published)

PRESS: A Novel Framework of Trajectory Compression in Road Networks, by SONG, Renchu; SUN, Weiwei; ZHENG, Baihua; ZHENG, Yu. (2014.0). *Proceedings of the VLDB Endowment: 40th VLDB 2014, September 1-5, Hangzhou*, (pp. 661-672) Saratoga, CA: VLDB Endowment. <http://dx.doi.org/10.14778/2732939.2732940> (Published)

On macro and micro exploration of hashtag diffusion in Twitter, by WANG, Yazhe; ZHENG, Baihua. (2014.0). *Proceedings of the 2014 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining: ASONAM 2014 : Beijing, China, August 17-20, 2014*, (pp. 285-288) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/ASONAM.2014.6921598> (Published)

Merged Aggregate Nearest Neighbor Query Processing in Road Networks, by SUN, Weiwei; CHEN, Chong; ZHENG, Baihua; CHEN, Chunan; ZHU, LIANG. (2013.0). *CIKM '13: Proceedings of the 22nd ACM International Conference on Information and Knowledge Management, 27 October - 1 November 2013, San Francisco*, (pp. 2243-2248) New York: ACM. <http://dx.doi.org/10.1145/2505515.2505738> (Published)

Dash: A novel search engine for database-generated dynamic web pages, by LEE, Ken C. K.; BANKAR, Kanchan; ZHENG, Baihua; CHOW, Chi-Yin. (2012.0). *2012 IEEE 32nd International Conference on Distributed Computing Systems (ICDCS): Macau, China, 18-21 June: Proceedings*, (pp. 435-444) Los Alamitos, CA: IEEE Computer Society. <https://doi.ieeecomputersociety.org/10.1109/ICDCS.2012.53> (Published)

An Automaton-based Index Scheme for On-demand XML Data Broadcast, by SUN, Weiwei; LIU, Peng; WU, Jingjing; QIN, Yongrui; ZHENG, Baihua. (2012.0). *Database systems for advanced applications : 17th International Conference, DASFAA 2012, Busan, South Korea, April 15-19, 2012, Proceedings. Part II*, (pp. 96-110) Berlin ; New York: Springer Verlag. [http://dx.doi.org/10.1007/978-3-642-29035-0\\_7](http://dx.doi.org/10.1007/978-3-642-29035-0_7) (Published)

Energy-Efficient Shortest Path Query Processing on Air, by JING, Yinan; CHEN, Chunan; SUN, Weiwei; ZHENG, Baihua; LIU, Liang; TU, Chuanchuan. (2011.0). *19th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2011) : November 1-4, 2011, Chicago, Illinois*, (pp. 393-369) New York, NY: ACM. <http://dx.doi.org/10.1145/2093973.2094031> (Published)

On Efficient Obstructed Reverse Nearest Neighbor Query Processing, by GAO, Yunjun; YANG, Jiacheng; CHEN, Gang; ZHENG, Baihua; SHOU, Lidan. (2011.0). *19th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2011) : November 1-4, 2011, Chicago, Illinois*, (pp. 191-200) Chicago, IL: ACM. <http://dx.doi.org/10.1145/2093973.2094000> (Published)

Exploring Dynamic Fan Shapes for Nearby Traffic Monitoring Queries in Road Networks, by LIN, Ting-Wei; ZHENG, Baihua; WEI, Ling-Yin; PENG, Wen-Chih. (2011.0). *19th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2011) : November 1-4, 2011, Chicago, Illinois*, (pp. 433-436) New York, NY, USA: ACM. <http://dx.doi.org/10.1145/2093973.2094041> (Published)

Context-aware nearest neighbor query on social networks, by WANG, Yazhe; ZHENG, Baihua. (2011.0). *Social informatics: Third International Conference, SocInfo 2011, Singapore, October 6-8: Proceedings*, (pp. 98-112) Singapore: Springer. [https://doi.org/10.1007/978-3-642-24704-0\\_15](https://doi.org/10.1007/978-3-642-24704-0_15) (Published)

- An Incremental Approach to Closest Pair Queries in Spatial Networks Using Best-First Search, by CHEN, Chunan; SUN, Weiwei; ZHENG, Baihua; Mao, Dingding; LIU, Weimo. (2011.0). *Database and expert systems applications : 22nd international conference, DEXA 2011, Toulouse, France, August 29 - September 2, 2011 ; proceedings, part II*, (pp. 136-143) Toulouse, France: Springer Verlag. [http://dx.doi.org/10.1007/978-3-642-23091-2\\_13](http://dx.doi.org/10.1007/978-3-642-23091-2_13) (Published)
- Utility-oriented K-anonymization on social networks, by WANG, Yazhe; XIE, Long; ZHENG, Baihua; LEE, Ken C. K.. (2011.0). *Database Systems for Advanced Applications: 16th International Conference, DASFAA 2011, Hong Kong, China, April 22-25, Proceedings*, (pp. 78-92) Berlin: Springer. [https://doi.org/10.1007/978-3-642-20149-3\\_8](https://doi.org/10.1007/978-3-642-20149-3_8) (Published)
- Navigational Path Privacy Protection: Navigational Path Privacy Protection, by LEE, Ken C. K.; LEE, Wang-chien; LEONG, Hong Va; ZHENG, Baihua. (2009.0). *CIKM '09 : proceedings of the ACM Eighteenth International Conference on Information and Knowledge Management; November 2 - 6, 2009, Hong Kong, China*, (pp. 691-700) New York, NY, USA: ACM. <http://dx.doi.org/10.1145/1645953.1646041> (Published)
- Continuous Obstructed Nearest Neighbor Queries in Spatial Databases, by GAO, Yunjun; ZHENG, Baihua. (2009.0). *SIGMOD '09: Proceedings of the 2009 ACM SIGMOD International Conference on Management of Data: Providence, Rhode Island, USA, June 29-July 2, 2009*, (pp. 577-590) New York: ACM. <http://dx.doi.org/10.1145/1559845.1559906> (Published)
- Visible Reverse K-Nearest Neighbor Queries, by GAO, Yunjun; ZHENG, Baihua; CHEN, Gencai; LEE, Wang-chien; LEE, Ken C. K.; LI, Qing. (2009.0). *25th IEEE International Conference on Data Engineering : ICDE 2009 : proceedings, 29 March-2 April 2009, Shanghai, China*, (pp. 131-140) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICDE.2009.201> (Published)
- OPAQUE: Protecting Path Privacy in Directions Search, by LEE, Ken C. K.; LEE, Wang-Chien; LEONG, Hong Va; ZHENG, Baihua. (2009.0). *IEEE 25th International Conference on Data Engineering: ICDE '09: March 29, 2009 - April 2, 2009, Shanghai, China: Proceedings*, (pp. 1271-1274) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICDE.2009.218> (Published)
- Fast Object Search on Road Networks, by LEE, Ken C. K.; LEE, Wang-Chien; ZHENG, Baihua. (2009.0). *EDBT '09: Proceedings of the 12th International Conference on Extending Database Technology: Advances in Database Technology: Saint Petersburg, March 24-26, 2009 : Proceedings*, (pp. 1018-1029) New York: ACM. <http://dx.doi.org/10.1145/1516360.1516476> (Published)
- Continuous visible nearest neighbour queries, by GAO, Yunjun; ZHENG, Baihua; LEE, Wang-Chien; CHEN, Gencai. (2009.0). *EDBT '09: Proceedings of the 12th International Conference on Extending Database Technology, Saint Petersburg, March 24-26*, (pp. 144-155) New York: ACM. <https://doi.org/10.1145/1516360.1516378> (Published)
- Efficient valid scope computation for location-dependent spatial queries in mobile and wireless environments, by LEE, Ken C. K.; LEE, Wang-chien; LEONG, Hong Va; UNGER, Brandon; ZHENG, Baihua. (2009.0). *ICUIMC '09: Proceedings of the 3rd International Conference on Ubiquitous Information Management and Communication, Suwon, Korea, January 15-16*, (pp. 131-140) New York: ACM. <https://doi.org/10.1145/1516241.1516264> (Published)
- Two-Tier Air Indexing for on-Demand Xml Data Broadcast, by SUN, Weiwei; YU, Ping; Qin, Yongrui; ZHANG, Zhuoyao; ZHENG, Baihua. (2009.0). *29th International Conference on Distributed Computing Systems (ICDCS '09)*, (pp. 199-206) Montreal, QC: IEEE. <http://dx.doi.org/10.1109/ICDCS.2009.42> (Published)
- Valid Scope Computation for Location-Dependent Spatial Query in Mobile Broadcast Environments, by LEE, Ken C. K.; Schiffman, Josh; ZHENG, Baihua; LEE, Wang-chien. (2008.0). *Proceedings of the ACM 17th Conference on Information and Knowledge Management : CIKM'08; Database, information retrieval, knowledge management; Napa Valley, California, October 26 - 30, 2008.*, (pp. 1231-1240) New York, NY: ACM. <http://dx.doi.org/10.1145/1458082.1458245> (Published)
- ROAD: An Efficient Framework for Location De-pendent Spatial Queries on Road Networks, by LEE, Ken C. K.; LEE, Wang-chien; ZHENG, Baihua. (2008.0). *Proceeding of the 17th ACM conference on Information and knowledge management*, (pp. 1327-1328) ACM. <http://dx.doi.org/10.1145/1458082.1458260> (Published)
- Searching correlated objects in a long sequence, by LEE, Ken C. K.; LEE, Wang-chien; Peuquet, Donna; ZHENG, Baihua. (2008.0). *Proceedings of Scientific and Statistical Database Management: 20th International Conference, SSDBM 2008, Hong Kong, July 9-11, 2008*, (pp. 436-454) Hong Kong: Springer

Verlag. [http://dx.doi.org/10.1007/978-3-540-69497-7\\_28](http://dx.doi.org/10.1007/978-3-540-69497-7_28) (Published)

Processing Mutual Nearest Neighbor Queries for Moving Object Trajectories, by GAO, Yunjun; CHEN, Gencai; LI, Qing; ZHENG, Baihua; LI, Chun. (2008.0). *9th International Conference on Mobile Data Management, 2008 : MDM '08 ; 27 - 30 April 2008, Beijing, China ; proceedings*, (pp. 116-123) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/MDM.2008.17> (Published)

Processing transitive nearest-neighbor queries in multi-channel access environments, by ZHANG, Xiao; LEE, Wang-Chien; MITRA, Prasnjit; ZHENG, Baihua. (2008.0). *EDBT '08: Proceedings of the 11th International Conference on Extending Database Technology: Nantes, France, March 25-29, 2008*, (pp. 452-463) New York: ACM. <http://doi.org/10.1145/1353343.1353399> (Published)

Location-Dependent Skyline Queries, by ZHENG, Baihua; LEE, Ken C. K.; LEE, Wang-Chien. (2008.0). *9th International Conference on Mobile Data Management (MDM'08)*, (pp. 148-155) IEEE. <http://dx.doi.org/10.1109/MDM.2008.14> (Published)

Squeezing Long Sequence Data for Efficient Similarity Search, by SONG, Guojie; Cui, Bin; ZHENG, Baihua; Xie, Kunqing; YANG, Dongqing. (2008.0). *Advanced web and network technologies, and applications : APWeb 2008 international workshops : BIDM, IWHDM, and DeWeb, Shenyang, China, April 26-28, 2008 : revised selected papers*, (pp. 438-449) Berlin ; New York: Springer Verlag. [http://dx.doi.org/10.1007/978-3-540-78849-2\\_44](http://dx.doi.org/10.1007/978-3-540-78849-2_44) (Published)

Approaching the Skyline in Z Order, by LEE, Ken C. K.; ZHENG, Baihua; LI, Huajing; LEE, Wang-Chien. (2007.0). *the 33rd International Conference on Very Large Data Bases (VLDB'07)*, (pp. 279-290) <http://worldcat.org/isbn/978-1-59593-649-3> (Published)

Transitive Nearest Neighbor Search in Mobile Environments, by ZHENG, Baihua; LEE, Ken C. K.; LEE, Wang-Chien. (2007.0). *IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing : proceedings : June 5-7, 2006, Taichung, Taiwan*, (pp. 14-21) Piscataway, N.J.: IEEE. <http://doi.org/10.1109/SUTC.2006.138> (Published)

Claim: An Efficient Method for Relaxed Frequent Closed Itemsets Mining over Stream Data, by SONG, Guojie; YANG, Dongqing; Cui, Bin; ZHENG, Baihua; WANG, Tengjiao. (2007.0). *Advances in Databases: Concepts, Systems and Applications : 12th International Conference on Database Systems for Advanced Applications, DASFAA 2007, Bangkok, Thailand, April 9-12, 2007. Proceedings.*, (pp. 664-675) Berlin, Heidelberg: Springer Verlag. [http://dx.doi.org/10.1007/978-3-540-71703-4\\_56](http://dx.doi.org/10.1007/978-3-540-71703-4_56) (Published)

Secure Real-Time User Preference Collection for Broadcast Scheduling, by DING, Xuhua; WANG, Shuhong; ZHENG, Baihua. (2006.0). *2nd International Conference on Security and Privacy in Communication Networks (SecureComm'06)*, (pp. 1-10) Baltimore, MD: IEEE. <http://dx.doi.org/10.1109/SECCOMW.2006.359540> (Published)

Tracking Nearest Surrounders in Moving Object Environments, by LEE, Ken C. K.; Schiffman, Josh; ZHENG, Baihua; LEE, Wang-chien. (2006.0). *2006 ACS/IEEE International Conference on Pervasive Services : June 26 - 29, 2006, [Lyon, France ; ICPS 2006 ; proceedings]*, (pp. 3-12) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/PERSER.2006.1652200> (Published)

CS Cache Engine: Data Access Accelerator for Location-Based Service in Mobile Environments (demo), by LEE, Ken C. K.; LEE, Wang-chien; Winter, Julian; ZHENG, Baihua; Xu, JianLiang. (2006.0). *Proceedings of the 2006 ACM SIGMOD international conference on Management of data: Chicago, IL, USA — June 27 - 29, 2006*, (pp. 787-789) New York, NY, USA: ACM. (Published)

Data Access Techniques in Location-Based Services, by XU, Jianliang; ZHENG, Baihua; LEE, Wang-Chien. (2006.0). *7th International Conference on Mobile Data Management, 2006: MDM 2006: May 10-12, 2006, Nara, Japan: Proceedings*, (pp. 64-) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/MDM.2006.58> (Published)

Caching complementary space for location-based services, by LEE, Ken C. K.; LEE, Wang-chien; ZHENG, Baihua; XU, Jianliang. (2006.0). *Advances in Database Technology - EDBT 2006: 10th International Conference on Extending Database Technology, Munich, Germany, March 26-31, 2006*, (pp. 1020-1038) Berlin, Heidelberg: Springer Verlag. [http://dx.doi.org/10.1007/11687238\\_59](http://dx.doi.org/10.1007/11687238_59) (Published)

Processing multiple aggregation queries in geo-sensor networks, by LEE, Ken C. K.; LEE, Wang-chien; ZHENG, Baihua; Winter, Julian. (2006.0). *Database Systems for Advanced Applications: 11th International Conference, DASFAA 2006, Singapore, April 12-15, 2006. Proceedings*, (pp. 20-34) Singapore: Springer Verlag. [http://dx.doi.org/10.1007/11733836\\_4](http://dx.doi.org/10.1007/11733836_4) (Published)

- Balancing Performance and Confidentiality in Air Index, by TAN, Qingzhao; LEE, Wang-chien; ZHENG, Baihua; LIU, Peng; LEE, Dik Lun. (2005.0). *CIKM '05 : proceedings of the 14th ACM International Conference on Information and Knowledge Management, October 31-November 5, 2005, Bremen, Germany*, (pp. 800-807) New York, N.Y.: ACM. <http://dx.doi.org/10.1145/1099554.1099743> (Published)
- DSI: A Fully Distributed Spatial Index for Wireless Data Broadcast, by LEE, Wang-Chien; ZHENG, Baihua. (2005.0). *ICDCS 2005: 25th IEEE International Conference on Distributed Computing Systems: Proceedings: 6-10 June 2005, Columbus, Ohio, USA*, (pp. 349-358) Los Alamitos, CA: IEEE Computer Society. <http://dx.doi.org/10.1109/ICDCS.2005.26> (Published)
- TOSA: A near-optimal scheduling algorithm for multi-channel data broadcast, by ZHENG, Baihua; XU, Xia; JIN, Xing; LEE, Dik Lun. (2005.0). *MDM '05: Proceedings of the 6th International Conference on Mobile Data Management: May, 9-13, Ayia Napa, Cyprus*, (pp. 29-37) New York: ACM. <https://doi.org/10.1145/1071246.1071252> (Published)
- A Fully Distributed Spatial Index for Wireless Data Broadcast, by LEE, Wang-chien; ZHENG, Baihua. (2005.0). *21st IEEE International Conference on Data Engineering (ICDE 2005): Proceedings: 5-8 April 2005, Tokyo*, (pp. 417-418) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICDE.2005.9> (Published)
- Proactive Caching for Spatial Queries in Mobile Environments, by HU, Haibo; XU, Jianliang; WONG, Wing Sing; ZHENG, Baihua; LEE, Dik Lun; LEE, Wang-Chien. (2005.0). *ICDE 2005: Proceedings: 21st IEEE International Conference on Data Engineering, 5-8 April 2005, Tokyo*, (pp. 403-414) Los Alamitos, CA: IEEE Computer Society. <http://dx.doi.org/10.1109/ICDE.2005.113> (Published)
- Search Continuous Nearest Neighbor on Air, by ZHENG, Baihua; LEE, Wang-chien; LEE, Dik Lun. (2004.0). *Proc. The First International Conference on Mobile and Ubiquitous Systems: Networking and Services (MobiQuitous '04)*, (pp. 236-245) IEEE. <http://dx.doi.org/10.1109/MOBIQ.2004.1331730> (Published)
- Energy-conserving air indexes for nearest neighbor search, by ZHENG, Baihua; Xu, Jianliang; LEE, Wang-chien; LEE, Dik Lun. (2004.0). *Advances in database technology--EDBT 2004 : 9th International Conference on Extending Database Technology : Herakleion, Crete, Greece, March 14-18, 2004 : proceedings*, (pp. 645-646) Berlin ; New York: Springer Verlag. <http://dx.doi.org/10.1007/b95855> (Published)
- Spatial Index On Air, by ZHENG, Baihua; LEE, Wang-chien; LEE, Dik Lun. (2003.0). *First IEEE International Conference on Pervasive Computing and Communications (PerCom'03) : March 23-26, 2003, Fort Worth, Texas : [proceedings].*, (pp. 297-304) Los Alamitos, Calif.: IEEE. <http://doi.ieeecomputersociety.org/10.1109/PERCOM.2003.1192753> (Published)
- Energy efficient index for querying location-dependent data in mobile broadcast environments, by Xu, Jianliang; ZHENG, Baihua; LEE, Wang-chien; LEE, Dik Lun. (2003.0). *International Conference on Data Engineering, 5-8 March 2003*, (pp. 239-250) Bangalore, India: IEEE. <http://doi.ieeecomputersociety.org/10.1109/ICDE.2003.1260796> (Published)
- Selecting the Best Valid Scopes for Wireless Dissemination of Location-dependent Data, by ZHENG, Baihua; LEE, Wang-chien; LEE, Dik Lun. (2003.0). *18th ACM Symposium on Applied Computing (SAC'03)*, New York: ACM. <http://dx.doi.org/10.1145/952532.952703> (Published)
- Search K Nearest Neighbors on air, by ZHENG, Baihua; LEE, Wang-Chien; LEE, Dik Lun. (2003.0). *Mobile Data Management: 4th International Conference, MDM 2003 Melbourne, Australia, January 21-24, 2003: Proceedings*, (pp. 181-195) Berlin: Springer Verlag. [http://dx.doi.org/10.1007/3-540-36389-0\\_13](http://dx.doi.org/10.1007/3-540-36389-0_13) (Published)
- Semantic caching in location-dependent query processing, by ZHENG, Baihua; LEE, Dik Lun. (2001.0). *Advances in Spatial and Temporal Databases: 7th International Symposium, SSTD 2001 Redondo Beach, CA, USA, July 12-15, 2001 Proceedings*, (pp. 97-116) Berlin ; New York: Springer Verlag. [http://dx.doi.org/10.1007/3-540-47724-1\\_6](http://dx.doi.org/10.1007/3-540-47724-1_6) (Published)
- Processing Location-dependent Queries In a Multi-cell Wireless Environment, by ZHENG, Baihua; LEE, Dik Lun. (2001.0). *Proceedings : Second ACM International Workshop on Data Engineering for Wireless and Mobile Access, MobiDE '01 : Santa Barbara, California, USA, May 20, 2001*, (pp. 54-65) New York, NY: ACM. <http://dx.doi.org/10.1145/376868.376897> (Published)

Research Challenges in Information Access and Dissemination in a Mobile Environment, by Xu, Jianliang; ZHENG, Baihua; ZHU, Manli; LEE, Dik Lun. (2002.0). *Pan-Yellow-Sea International Workshop on Information Technologies for Network Era (PYIWIT'02)*, Saga, Japan.  
<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.6.8879> (Published)

## Research Grants

### Singapore Management University

BeyondTravel: a Multimodal Travel Records Analytics Framework, Academic Research Fund (AcRF) Tier 2, Ministry of Education (MOE) , PI (Project Level): ZHENG Baihua , Co-PI (Project Level): Thivya KANDAPPU, 2020, S\$544,872

Personalized Participatory Nation: The Proposal for 2nd Phase Funding of Living Analytics Research Centre (LARC) – CMU Partnership & International Collaborations, Interactive Digital Media (IDM) International Research Centres (IRCs) Funding Scheme, National Research Foundation (NRF) , PI (Programme Level): LIM Ee Peng , PI (Project Level): Archan MISRA, ZHENG Baihua, Steven HOI, Jing JIANG, 2017, S\$6,984,929

Personalized Participatory Nation: The Proposal for 2nd Phase Funding of Living Analytics Research Centre (LARC), Interactive Digital Media (IDM) International Research Centres (IRCs) Funding Scheme, National Research Foundation (NRF) , PI (Programme Level): LIM Ee Peng , PI (Project Level): Archan MISRA, ZHENG Baihua, Steven HOI, Jing JIANG, 2016, S\$18,015,071

Trajectory Management in Road Networks, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): ZHENG Baihua, 2014, S\$22,598.11

Twitalytics: Interactive Social Media Analytics for Twitter Data (Year 2), SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): ZHENG Baihua, 2013, S\$22,109

Utility-Oriented K-Anonymization on Social Networks, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): ZHENG Baihua, 2011, S\$20,179.67

Caching and Index Strategies for Location-Dependent Information Services, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): ZHENG Baihua, 2004, S\$36,000

### Other Institutions

Transition from Living Analytics Research Centre to Social Urban Observatory, NRF, National Research Foundation PI (Project Level): LIM Ee Peng, Co-PI (Project Level): Archan MISRA, ZHENG Baihua, Jing JIANG, 2021, SGD2,687,280

Transition from Living Analytics Research Centre to Social Urban Observatory, Strategic Capabilities Research Centres Funding Initiative, NRF PI (Project Level): LIM Ee Peng, Co-PI (Project Level): ZHENG Baihua, Archan MISRA, Jing JIANG, Wei GAO, SUN Qianru, HARA, Kotaro, Palakorn ACHANANUPARP, 2021, SGD2,687,280

Transition from Living Analytics Research Centre to Social Urban Observatory, NRF, National Research Foundation - Strategic Capabilities Research Centres Funding Initiative , PI (Programme Level): LIM Ee Peng, PI (Project Level): LIM Ee Peng, Archan MISRA, Jing JIANG, ZHENG Baihua, Co-PI (Project Level): HARA, Kotaro, SUN Qianru, Palakorn ACHANANUPARP, Wei GAO, 2021, SGD2,687,280

LARC 2.0 - Living Analytics Research Centre – Phase II (Project PI for 1 of 4 work packages, “Smart Consumption & Healthy LifeStyle” ), International Research Centre, National Research Foundation , PI (Programme Level): LIM Ee Peng, Mark Kamlet, PI (Project Level): LIM Ee Peng, Co-PI (Project Level): Archan MISRA, Jing JIANG, ZHENG Baihua, Steven HOI, 2016, SGD25,000,000

## TEACHING

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## **Courses Taught**

### Singapore Management University

#### Undergraduate Programmes :

Data Management

#### Postgraduate Professional Programmes :

Capstone Project - Data Science and Engineering

Data Management

Dissertation

Research Topics in Information Systems 1

Thesis

#### Postgraduate Research Programmes :

Dissertation

Research Topics in Information System 2

Research Topics in Information Systems 1

Research Topics in Information Systems 2

Seminars in Information Systems 1

Seminars in Information Systems 2

## **THESES AND DISSERTATIONS**

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### **Theses and Dissertations Supervised**

#### Singapore Management University

Supervisor, "Data Preparation for Social Network Mining and Analysis", Dissertation by WANG YAZHE, PhD in Information Systems, Singapore Management University, 2015

### **Theses and Dissertations Assessed**

#### Singapore Management University

Committee Member, "Preference Learning and Similarity Learning Perspectives on Personalized Recommendation", Dissertation by LE Duy Dung, PhD in Computer Science, Singapore Management University, 2019

Committee Member, "Comparison Mining from Text", Dissertation by Maksim TKACHENKO, PhD in Information Systems, Singapore Management University, 2018

Committee Member, "Entity Summarization of Review and Micro-Reviews", Dissertation by NGUYEN THANH SON, PhD in Information Systems, Singapore Management University, 2018

Committee Member, "Learning Latent Characteristics of Locations-based Social Networking Data", Dissertation by DOAN THANH NAM, PhD in Information Systems, Singapore Management University, 2018

Committee Member, "User Behaviour Mining in Microblogging", Dissertation by HOANG TUAN ANH, PhD in Information Systems, Singapore Management University, 2016

Committee Member, "Multi-cost and Upgradable Spatial Network Databases", Dissertation by LIN YIMIN, PhD in Information Systems, Singapore Management University, 2014