

Curriculum Vitae — Jianliang Xu

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ACADEMIC POSITIONS

September 2013 – Present	Full Professor , Hong Kong Baptist University
September 2008 – August 2013	Associate Professor , Hong Kong Baptist University
December 2009 – January 2010	Senior Visiting Fellow , Fudan University, China
May 2005 – June 2005	Visiting Scholar , Pennsylvania State University, University Park, USA
September 2002 – August 2008	Assistant Professor , Hong Kong Baptist University

RESEARCH INTERESTS

Big Data, Blockchain, Mobile Computing, Data Security and Privacy

EDUCATION

Ph.D., August 2002, Computer Science, Hong Kong University of Science and Technology, Hong Kong
Dissertation: “Client-Side Data Caching in Mobile Computing Environments”

B.Eng. (First Class Honors), June 1998, Computer Science & Engineering, Zhejiang University, Hangzhou, China

AWARDS & HONORS

- **Best Paper Award**, International Workshop on Mobile Ubiquitous Systems and Technologies (MUST), 2021
- **Best Paper Nominee Award** (5/970), The 29th ACM International Conference on Information and Knowledge Management (CIKM), 2020
- **Best Paper Award** (1/211), The 20th Int’l Conference on Web Information Systems Engineering (WISE), 2019
- **VLDB Distinguished Reviewer Award**, 2019
- **Nomination for HKSAR UGC Teaching Award** (General Faculty Member), 2018
- **HKBU President’s Award for Outstanding Performance in Teaching**, 2018
- **HKBU President’s Award for Outstanding Performance in Scholarly Work**, 2017
- **HKBU Faculty Performance Award for Outstanding Young Researcher**, 2012
- **First-Class Award**, The 12th National Challenge Cup Contest, 2011
- **Best Student Paper Award Runner-up**, The 15th International Conference on Database Systems for Advanced Applications (DASFAA), 2010
- **Champion University Award** (Team Coach), IBM-HK Inter-University Programming Contest, 2008
- **Zhu Kezhen Scholarship** (竺可楨獎學金), the highest honor for graduates of Zhejiang University (only top 6 out of 2000+ graduates awarded in that year), 1998

RESEARCH GRANTS (*Totalling over HK\$25M in PI capacity, including 14 GRF projects*)

A. RGC / General Research Fund (GRF)

1. **Principal Investigator**, “Stateless Blockchains for Scalable Transaction Processing,” RGC/GRF, HKBU 12201520, 2021-2023, HK\$1,057,394.
2. **Principal Investigator**, “Towards Integrity-Assured Search in Scalable Blockchain Systems,” RGC/GRF, HKBU 12200819, 2020-2022, HK\$731,089.
3. **Principal Investigator**, “Verifiable Publish/Subscribe Queries over Outsourced Data Streams,” RGC/GRF, HKBU12201018, 2019-2021, HK\$693,000.
4. **Principal Investigator**, “Keyword-based Spatial Influence Queries,” RGC/GRF, HKBU12200817, 2018-2020, HK\$875,000.
5. **Principal Investigator**, “Authenticated Analytical Query Services on Set-Valued Data,” RGC/GRF, HKBU12244916, 2017-2019, HK\$844,559.
6. **Principal Investigator**, “Social-Aware Ridesharing in Location-Based Services,” RGC/GRF, HKBU12201615, 2016-2018, HK\$496,028.
7. **Principal Investigator**, “Authenticated Queries for Cloud-Assisted Multi-Source Data Collection,” RGC/GRF, HKBU12202414, 2015-2018, HK\$875,000.
8. **Principal Investigator**, “Differentially Private Publication of Network Data via Density-Based Exploration and Reconstruction,” RGC/GRF, HKBU12200914, 2014-2017, HK\$500,000.
9. **Principal Investigator**, “iGPS: Privacy-Preserving Geo-Proximity Services in Location-based Social Networks,” RGC/GRF, HKBU211512, 2012-2015, HK\$700,000.
10. **Principal Investigator**, “Transaction Management for Flash-based Database Systems: Protocols, Implementations and Optimizations,” RGC/GRF, HKBU211510, 2010-2012, HK\$600,636.
11. **Principal Investigator**, “Query Processing in Flash-Based Storage-Centric Sensor Networks,” RGC/GRF, HKBU210808, 2009-2011, HK\$307,657.
12. **Principal Investigator**, “Data-Centric Filter Management and Routing Optimization for Distributed Monitoring Systems,” RGC/GRF, HKBU211307, 2008-2010, HK\$381,150.
13. **Principal Investigator**, “iPDA: Privacy-Preserving Location-based Data Access in Mobile Environments,” HKBU 2112/06E, RGC/GRF, HKBU211206, 2006-2009, HK\$356,000.
14. **Principal Investigator**, “ECOQUAD: Energy-Conserving Quality-Aware Data Collection in Wireless Sensor Networks,” RGC/GRF, HKBU2115/05E, 2005-2008, HK\$391,852.
15. **Co-Investigator**, “Semantic Indexing for Keyword Search on Graphs,” RGC/GRF, PI: Byron Choi, HKBU 12201119, 2020-2022, HK\$518,999.
16. **Co-Investigator**, “Development and Evaluation of an Internet-based Cognitive Behavioral Intervention Program for Reducing Psychological Distress of Chinese University Students in Hong Kong,” RGC/GRF, PI: Jiayan Pan, HKBU 12606118, 2019-2021, HK\$964,160.
17. **Co-Investigator**, “Exploring the Structural Critical Entities in Big Attributed Graphs,” RGC/GRF, PI: Zhiwei Zhang, HKBU 12201518, 2019-2021, HK\$693,000.
18. **Co-Investigator**, “Efficient Graph Search Algorithms for Public-Private Social Networks,” RGC/GRF, PI: Xin Huang, HKBU 12200917, 2017-2020, HK\$500,000.
19. **Co-Investigator**, “Incognito Browsing of Spatial-Temporal Data Using Computational Private Information Retrieval,” RGC/GRF, PI: Haibo Hu, HKBU 12200914, 2014-2017, HK\$692,894.
20. **Co-Investigator**, “Spatio-Temporal Attestation for Location-based Services Using Private Signatures,” RGC/GRF, PI: Haibo Hu, HKBU210612, 2012-2015, HK\$690,000.
21. **Co-Investigator**, “Privacy-Conscious Query Authentication for Outsourced and Cloud Databases,” RGC/GRF, PI: Haibo Hu, HKBU210811, 2011-2013, HK\$911,375.
22. **Co-Investigator**, “Optimizations for the View Update Problem with Emerging Applications,” RGC/GRF, PI: Byron Choi, HKBU210409, 2010-2011, HK\$329,952.
23. **Co-Investigator**, “Wireless Information Publication and Access,” RGC/GRF, PI: Dik Lee, HKUST6179/03E, 2003-2005, HK\$414,398.

B. RGC / Collaborative Research Fund (CRF)

24. **Co-PI**. “A Human-Powered Machine Learning System,” CRF C6030-18G, 2019-2022, HK\$3,716,381 (HK\$621,000 allocated to HKBU).
25. **Co-PI**. “Security and Privacy-enhancing Technologies for Cloud Storage of Big Data,” CRF C1008-16G, 2017-2020, HK\$5,983,404 (HK\$1,020,000 allocated to HKBU).

C. RGC / Research Impact Fund (RIF)

26. **Co-PI**, “Development and Evaluation of the Effectiveness of an Online Cognitive Behavioral Intervention Program for Hong Kong People with Social Anxiety Disorder,” RIF R2018-18, 2019-2023, HK\$6,286,227.

D. RGC / German-Hong Kong Joint Research Scheme

27. **PI**, “Energy-Efficient Data Management with Novel Storage Technologies” (German partner: Prof. Theo Härder / University of Kaiserslautern), G_HK018/11, 2012-2013, \$52,000.

E. ITC / Innovation and Technology Fund (ITF)

28. **PI**, “Privacy-Preserving Large-Scale Indoor Location Tracking using Wearable Devices,” ITF/ITSP Tier 2, ITS/288/15FX & InP/085/16 & InP/129/16, 2016-2018, HK\$2,002,150 + HK\$381,360 + HK\$373,326.
29. **Co-PI & Deputy Coordinator**, “Development of an Online Cognitive Behavioural Intervention Program to Reduce Depressive Symptoms for Adults with Depression,” ITB/FBL/1002/18/P, 2019-2021, HK\$4,664,561.
30. **Co-I & Research Team Leader**, “Hybrid Geofencing Systems for Elderly and Child Care,” ITF/ITSP Tier 2, ITS/231/13FX, 2014-2016, HK\$2,378,200.
31. **Co-I**, “Big Data and Deep Learning Based Online Education Platform,” ITF/ITSP Tier 2, ITS/443/16FX, 2017-2019, HK\$3,500,000.

F. National Natural Science Foundation of China (NSFC) and Others

32. **Co-PI**, “城市大數據與智能處理關鍵理論與技術”, 廣東省基礎與應用基礎研究基金-粵港澳研究團隊, Guangdong Basic and Applied Basic Research Foundation, 2019B1515130001, 2020.1-2023.12, ¥3,000,000, (¥600,000 allocated to HKBU).
33. **PI**, “陽江地方特色產業防偽溯源區塊鏈創新服務平台”, 廣東省科技專項資金, SDZX2019042, 2019.7-2021.6, ¥2,000,000.
34. **PI**, “The 20th IEEE Int’l Conf. on Mobile Data Management (MDM)”, Croucher Foundation, 2019.6, \$90,000.
35. **PI**, “Design and Optimization of GPU Accelerated AI Engine for Name Entity Recognition”, ASTRI, 2019.4-2019.6, \$250,000.
36. **PI**, “Blockchain-based Supply Chain System”, Consultancy Project, Zhongshuo (Hong Kong) Co., Ltd., 2018.5-2020.4, \$486,000.
37. **Co-I**, “Community Search over Big Attributed Graphs”, NSFC, Project No. 61702435, 2018.1-2020.12, ¥290,000.
38. **Co-I**, “Cluster-based Publish/Subscribe over Geo-Textual Streams”, NSFC, Project No. 61702436, 2018.1-2020.12, ¥210,000.
39. **Co-PI**, “新一代無線智能體驗終端與大數據採集分析平台研發”, 廣州市科技計劃項目產學研協同創新重大專項(港澳台地區合作項目), 2017.5-2019.4, ¥1,000,000.
40. **Co-I**, “Privacy-Preserving Search over Massive Data”, NSFC, Project No. 61572413, ¥630,000, 2016.1-2019.12.
41. **Co-I**, “Crowdsourcing-based Data Cleaning for Uncertain Knowledge Graphs”, NSFC, Project No. 61572193, 2016.1-2016.12, ¥160,000.
42. **Co-I and PI of Subcontract**, “Flash-based Database Systems,” NSFC Key Project No. 60833005, 2009-2012, ¥2,000,000. Subcontract: “Flash-Optimized Query Processing Algorithms,” ¥200,000.

G. HKBU / Faculty Research Grant (FRG)

43. **Principal Investigator**, “Multi-Source Query Authentication,” HKBU/FRG2/13-14/064, 2014-2016, HK\$135,000.
44. **Principal Investigator**, “Reverse Keyword Search in Spatio-Textual Queries,” HKBU/FRG2/12-13/081, 2013-2015, HK\$134,820.
45. **Principal Investigator**, “µPDA: Mutual Privacy-Preserving Data Access in Mobile Geo-Social Networking Services,” HKBU/FRG2/11-12/074, 2012-2014, HK\$120,000.
46. **Principal Investigator**, “Privacy-Aware Location Data Publishing for Mobile Computing Applications,” HKBU/FRG 07-08/II-23, 2008-2010, HK\$110,000.
47. **Principal Investigator**, “Adaptive Data Collection for Real-Time Monitoring in Wireless Sensor Networks,” HKBU/FRG 05-06/II-65, 2006-2008, HK\$110,000.
48. **Principal Investigator**, “Data Dissemination Algorithms in a Wired/Wireless Integrated Environment,” HKBU/FRG 04-05/II-26, 2005-2007, HK\$124,000.
49. **Principal Investigator**, “Improving Content Distribution with QoS Guarantees,” HKBU/FRG 03-04/II-19, 2004-2006, HK\$108,864.

50. **Principal Investigator**, “Processing and Scheduling Location-Dependent Queries,” HKBU/FRG 02-03/II-34, 2003-2005, HK\$181,440.

H. Teaching Development Grant

51. **Principal Investigator**, “Web-based Tutoring for Enhancing Teaching and Learning of Database Systems,” TDG/0607/III/09, 2008, HK\$98,000.

PUBLICATIONS

- ♦ **Received >10,000 citations in total, with an h-index 50, according to Google Scholar (January 2021)**[⊖]
 - **Papers received 50~99 citations are marked with ** (25 papers)**
 - **Papers received ≥ 100 citations are marked with *** (19 papers)**
- ♦ **80+ regular papers published in CCF Rank-A Journals and Conferences**[⊖]

A. Refereed Conference Papers

1. Y. Huang, J. Tang, Q. Cong, A. Lim, and J. Xu. “Do the Rich Get Richer? Fairness Analysis for Blockchain Incentives.” *Proc. of the ACM SIGMOD Int’l Conf. on Management of Data (SIGMOD ’21)*, Xi’an, China, June 2021.
2. Z. Peng, C. Xu, H. Wang, J. Huang, J. Xu, and X. Chu. “P²B-Trace: Privacy-Preserving Blockchain-based Contact Tracing to Combat Pandemics.” *Proc. of the ACM SIGMOD Int’l Conf. on Management of Data (SIGMOD ’21)*, Xi’an, China, June 2021.
3. X. Zhu, X. Huang, B. Choi, J. Jiang, Z. Zou, and J. Xu. “Budget Constrained Interactive Search for Multiple Targets.” *Proc. the 47th International Conference on Very Large Data Bases (PVLDB ’21)*, Copenhagen, Denmark, 2021.
4. Q. Liu, X. Zhu, X. Huang, and J. Xu. “Local Algorithms for Distance-generalized Core Decomposition over Large Dynamic Graphs.” *Proc. the 47th International Conference on Very Large Data Bases (PVLDB ’21)*, Copenhagen, Denmark, 2021.
5. X. Zhu, X. Huang, B. Choi, J. Jiang, Z. Zou, and J. Xu. “Budget Constrained Interactive Search for Multiple Targets.” *Proc. the 47th International Conference on Very Large Data Bases (PVLDB ’21)*, Copenhagen, Denmark, 2021.
6. Z. Sun, X. Huang, J. Xu, and F. Bonchi. “Efficient Probabilistic Truss Indexing on Uncertain Graphs.” *Proc. The 30th Web Conference (WWW ’21)*, Ljubljana, Slovenia, April 2021.
7. C. Zhang, C. Xu, H. Wang, J. Xu, and B. Choi, “Authenticated Keyword Search in Scalable Hybrid-Storage Blockchains.” *Proceedings of the 37th IEEE International Conference on Data Engineering (ICDE ’21)*, Chania, Crete, Greece, April 2021.
8. Y. Li, H. Gu, R. Chen, J. Xu, and M. Xu. “Top-k Publish/Subscribe for Ride Hitching.” *Proceedings of the 37th IEEE International Conference on Data Engineering (ICDE ’21)*, Chania, Crete, Greece, April 2021. (Short paper)
9. W. Li, H. Zhu, W. Liu, J. Yin, and J. Xu. “Optimal Sequenced Route Query with POI Preferences.” *Proceedings of the 26th International Conference on Database Systems for Advanced Applications (DASFAA ’21)*, Taipei, Taiwan, April 2021.
10. Z. Peng, J. Huang, H. Wang, S. Wang, X. Chu, X. Zhang, L. Chen, X. Huang, X. Fu, Y. Guo, and J. Xu. “BU-Trace: A Permissionless Mobile System for Privacy-Preserving Intelligent Contact Tracing.” *Proc. the 3rd International Workshop on Mobile Ubiquitous Systems and Technologies (MUST ’21)*, Taipei, Taiwan, April 2021. **(Best Paper Award)**
11. G. Li, B. Choi, J. Xu, S. S. Bhowmick, K-P Chun, and G. L-H. Wong. “ShapeNet: A Shapelet-Neural Network Approach for Multivariate Time Series Classification.” *Proceedings of the 31st AAAI Conference on Artificial*

[⊖] <http://scholar.google.com/citations?user=LJNsBeoAAAAJ>

[⊖] <http://www.ccf.org.cn/sites/ccf/paiming.jsp>

Intelligence (AAAI '21), 2021.

12. K. Li, Y. Tang, J. Chen, Z. Yuan, C. Xu, and J. Xu. “Cost-Effective Data Feeds to Blockchains via Workload-Adaptive Data Replication.” *ACM/IFIP Middleware 2020*, Delft, Netherlands, Dec. 2020, pp. 371-385.
13. X. Zhu, X. Huang, B. Choi, and J. Xu. “Top-k Graph Summarization on Hierarchical DAGs.” *Proc. of the ACM International Conference on Information and Knowledge Management (CIKM '20)*, Oct. 2020, pp. 1903-1912. **(Best Paper Nominee Award, top 5 out of 970 submissions)**
14. X. Zhu, X. Huang, J. Huang, B. Choi, and J. Xu. “HDAG-Explorer: An Interactive System for Hierarchical DAG Summarization and Exploration.” *Proc. the 46th International Conference on Very Large Data Bases (PVLDB '20)*, Tokyo, Japan, 2020, pp. 2973-2976. (Demo Paper)
15. Q. Liu, M. Zhao, X. Huang, J. Xu, and Y. Gao. “Truss-based Community Search over Large Directed Graphs.” *Proc. of the ACM SIGMOD Int'l Conf. on Management of Data (SIGMOD '20)*, Portland, OR, USA, June 2020, pp. 2183-2197.
16. H. Wang, C. Xu, C. Zhang, and J. Xu. “vChain: A Blockchain System Ensuring Query Integrity.” *Proc. of the ACM SIGMOD Int'l Conf. on Management of Data (SIGMOD '20)*, Portland, OR, USA, June 2020, pp. 2693-2696. (Demo Paper)
17. Q. Liu, Y. Zhu, M. Zhao, X. Huang, J. Xu, and Y. Gao. “VAC: Vertex-Centric Attributed Community Search.” *Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE '20)*, Dallas, Texas, USA, April 2020, pp. 937-948.
18. J. Jiang, X. Huang, B. Choi, J. Xu, S. S Bhowmick, and L. Xu. “PPKWS: An Efficient Framework for Keyword Search on Public-Private Networks.” *Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE '20)*, Dallas, Texas, USA, April 2020, pp. 457-468.
19. R. Yang, X. Lin, J. Xu, Y. Yang, and L. He. “Optimizing Knowledge Graphs through Voting-based User Feedback.” *Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE '20)*, Dallas, Texas, USA, April 2020, pp. 421-432.
20. Z. Feng, T. Liu, H. Li, H. Lu, L. Shou, and J. Xu. “Indoor Top-k Keyword-aware Routing Query.” *Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE '20)*, Dallas, Texas, USA, April 2020, pp. 1213-1224.
21. T. Liu, Z. Feng, H. Li, H. Lu, M. A. Cheema, H. Cheng, and J. Xu. “Shortest Path Queries for Indoor Venues with Temporal Variations.” *Proc. the 36th IEEE International Conference on Data Engineering (ICDE '20)*, Dallas, Texas, USA, April 2020, pp. 2014-2017. (Short Paper)
22. S. Guo, Y. Ji, C. Zhang, C. Xu, and J. Xu, “vCBIR: A Verifiable Search Engine for Content-Based Image Retrieval.” *Proceedings of the 36th IEEE International Conference on Data Engineering (ICDE '20)*, Dallas, Texas, USA, April 2020, pp. 1730-1733. (Demo Paper)
23. J. Huang, X. Huang, Y. Zhu, and J. Xu. “Parameter-Free Structural Diversity Search,” *Proceedings of the 20th International Conference on Web Information Systems Engineering (WISE '19)*, Hong Kong, Nov. 2019, pp. 677-693. **(Best Paper Award)**
24. L. Sun, X. Huang, R.-H. Li, J. Xu. “Fast Algorithms for Intimate-Core Group Search in Weighted Graphs,” *Proceedings of the 20th International Conference on Web Information Systems Engineering (WISE '19)*, Hong Kong, Nov. 2019, pp. 728-744.
25. L. Liu, X. Huang, J. Xu, Y. Song. “Oasis: Online Analytic System for Incivility Detection and Sentiment Classification,” *Proceedings of IEEE International Conference on Data Mining (ICDM '19)*, Beijing, 2019, pp. 1098-1101. (Demo Paper)
26. K. Li, Y. Tang, B. H. Kim, and J. Xu. “Secure Consistency Verification for Untrusted Cloud Storage by Public Blockchains,” *Proceedings of the 15th International Conference on Security and Privacy in Communication Networks (SecureComm '19)*, Orlando, USA, Oct. 2019, pp. 39-62.
27. C. Xu, C. Zhang, and J. Xu. “vChain: Enabling Verifiable Boolean Range Queries over Blockchain Databases,” *Proc. of the ACM SIGMOD Int'l Conf. on Management of Data (SIGMOD '19)*, Amsterdam, Netherlands, July 2019, pp. 141-158.

28. H. Wang, X. Fu, J. Xu, and H. Lu. "Learned Index for Spatial Queries." *Proceedings of the 20th IEEE Conference on Mobile Data Management (MDM '19)*, Hong Kong, June 2019, pp. 569-574.
29. C. Zhang, C. Xu, J. Xu, Y. Tang, and B. Choi. "GEM²-Tree: A Gas-Efficient Structure for Authenticated Range Queries in Blockchain." *Proceedings of the 35th IEEE International Conference on Data Engineering (ICDE '19)*, Macau SAR, China, April 2019, pp. 842-853.
30. Z. Zhang, X. Huang, J. Xu, B. Choi, and Z. Shang. "Keyword-Centric Community Search." *Proceedings of the 35th IEEE International Conference on Data Engineering (ICDE '19)*, Macau SAR, China, April 2019, pp. 422-433.
31. S. Guo, J. Xu, C. Zhang, C. Xu, and T. Xiang. "ImageProof: Enabling Authentication for Large-Scale Image Retrieval." *Proceedings of the 35th IEEE International Conference on Data Engineering (ICDE '19)*, Macau SAR, China, April 2019, pp. 1070-1081.
32. Y. Ji, C. Xu, J. Xu, and H. Hu. "vABS: Towards Verifiable Attribute-Based Search over Shared Cloud Data." *Proceedings of the 35th IEEE International Conference on Data Engineering (ICDE '19)*, Macau SAR, China, April 2019, pp. 2028-2031. (Demo Paper)
33. N. Ng, P. Yi, Z. Zhang, B. Choi, S. S. Bhowmick, and J. Xu. "FGreat: Focused Graph Query Autocompletion." *Proceedings of the 35th IEEE International Conference on Data Engineering (ICDE '19)*, Macau SAR, China, April 2019, pp. 1956-1959. (Demo Paper)
34. Z. Zhang, H. Wei, J. Xu, and B. Choi. "GScan: Exploiting Sequential Scans for Subgraph Matching." *Proc. the 24th International Conference on Database Systems for Advanced Applications (DASFAA '19)*, Chiang Mai, Thailand, April 2019, pp. 471-475.
35. X. Huang, J. Jiang, B. Choi, J. Xu, Z. Zhang, and Y. Song. "PP-DBLP: Modeling and Generating Attributed Public-Private Networks with DBLP." *Proc. the IEEE ICDM Workshop on Graph Analytics (GA '18)*, Singapore, Nov. 2018, pp. 986-989.
36. C. Xu, J. Xu, H. Hu, and M. H. Au. "When Query Authentication Meets Fine-Grained Access Control: A Zero-Knowledge Approach." *Proc. of the ACM SIGMOD Int'l Conf. on Management of Data (SIGMOD '18)*, Houston, TX, June 2018, pp. 147-162.
37. C. Zhang, C. Xu, J. Xu, and B. Choi. "Distributed kNN Query Authentication." In *Proc. the 19th IEEE International Conference on Mobile Data Management (MDM '18)*, Aalborg, Denmark, June 2018, pp. 167-176.
38. X. Fu, C. Zhang, H. Lu, and J. Xu. "Efficient Matching of Offers and Requests in Social-Aware Ridesharing." In *Proc. the 19th IEEE International Conference on Mobile Data Management (MDM '18)*, Aalborg, Denmark, June 2018, pp. 197-206.
39. X. Lin, Y. Peng, J. Xu, and B. Choi. "Human-Powered Data Cleaning for Probabilistic Reachability Queries on Uncertain Graphs." *Proc. the 34th IEEE International Conference on Data Engineering (ICDE '18)*, Paris, France, April 2018, pp. 1755-1756 (Poster Paper).
40. X. Lin, J. Xu, H. Hu, and Z. Fan. "Reducing Uncertainty of Probabilistic Top-*k* Ranking via Pairwise Crowdsourcing." *Proc. the 34th IEEE International Conference on Data Engineering (ICDE '18)*, Paris, France, April 2018, pp. 1757-1758 (Poster Paper).
41. C. Xu, Q. Chen, H. Hu, J. Xu, and X. Hei. "Authenticating Aggregate Queries over Set-Valued Data with Confidentiality." *Proc. the 34th IEEE International Conference on Data Engineering (ICDE '18)*, Paris, France, April 2018, pp. 1797-1798 (Poster Paper).
42. Y. Tang, Z. Xing, C. Xu, J. Chen, and J. Xu. "Lightweight Logging over the Blockchain for Data-Intensive Applications." The Second Workshop on Trusted Smart Contracts at Financial Cryptography 2018, Curaçao, March 2018.
43. Q. Liu, Z. Feng, X. Xie, J. Xu, X. Lin, and C. S. Jensen. "iZone: Efficient Influence Zone Evaluation over Geo-Textual Data." *Proc. the 34th IEEE International Conference on Data Engineering (ICDE '18)*, Paris, France, April 2018, pp. 1645-1648 (Demo Paper).
44. X. Huang, B. Choi, J. Xu, W. Cheung, Y. Zhang and J. Liu. "Ontology-based Graph Visualization for Summarized View." *Proc. of the International Conference on Information and Knowledge Management (CIKM*

- '17), Singapore, Nov 2017 (Short Paper), pp. 2115-2118.
45. X. Fu, J. Huang, H. Lu, J. Xu, and Y. Li. "Top-k Taxi Recommendation in Realtime Social-Aware Ridesharing Services." In *Proc. the 15th International Symposium on Spatial and Temporal Databases (SSTD 2017)*, Washington DC, August 2017, pp. 221-241.
 46. J. Xu, J. Xu, G. Cao, H. Xu, M. Xu, and N. Zheng. "Towards Optimal Free-of-Charge Trip Planning in Bike-Sharing Systems." In *Proc. the 18th IEEE International Conference on Mobile Data Management (MDM '17)*, Daejeon, South Korea, May 2017, pp. 92-101.
 47. J. Chen, B. Zhu, O. Balter, J. Xu, W. Zou, A. Hedman, R. Chen, and M. Sang. "FishBuddy: Promoting Student Engagement in Self-Paced Learning through Wearable Sensing." In *Proc. the 3rd IEEE International Conference on Smart Computing (SMARTCOMP '17)*, Hong Kong, May 2017, pp. 1-9.
 48. L. Chen, Y. Li, J. Xu, and C. S. Jensen. "Direction-Aware Why-Not Spatial Keyword Top-k Queries." *Proc. the 33rd IEEE International Conference on Data Engineering (ICDE '17)*, San Diego, USA, April 2017, pp. 107-110 (Short Paper).
 49. X. Huang, L. V. S. Lakshmanan, and J. Xu. "Community Search over Big Graphs: Models, Algorithms, and Opportunities." *Proc. the 33rd IEEE International Conference on Data Engineering (ICDE '17)*, San Diego, USA, April 2017, pp. 1451-1454 (Tutorial Paper).
 50. X. Xie, X. Lin, J. Xu, and C. S. Jensen. "Reverse Keyword-based Location Search." *Proc. the 33rd IEEE International Conference on Data Engineering (ICDE '17)*, San Diego, California, USA, April 2017, pp. 375-386.
 51. H. Yan, X. Cheng, S. Su, Q. Zhang, and J. Xu. "Authenticated Spatio-textual Similarity Joins in Untrusted Cloud Environments." *Proc. the 22nd IEEE International Conference on Parallel and Distributed Systems (ICPADS '16)*, Wuhan, China, Dec. 2016, pp. 685-694.
 52. X. Zhou, W. Wang, and J. Xu. "General Purpose Index-based Method for Efficient MaxRS Query." *Proc. 27th International Conference on Database and Expert Systems Applications (DEXA '16)*, Porto, Portugal, Sept. 2016, pp. 20-36.
 53. L. Chen, J. Xu, C. S. Jensen, and Y. Li. "YASK: A Why-Not Question Answering Engine for Spatial Keyword Query Services." *Proc. the 42nd International Conference on Very Large Data Bases (PVLDB '16)*, New Delhi, India, September 2016, pp. 1501-1504. (Demo Paper)
 54. P. Yi, B. Choi, S. S. Bhowmick, J. Xu. "AutoG: A Visual Query Autocompletion Framework for Graph Databases." *Proc. the 42nd International Conference on Very Large Data Bases (PVLDB '16)*, New Delhi, India, September 2016, pp. 1505-1508. (Demo Paper)
 55. L. Chen, J. Xu, X. Lin, Christian S. Jensen, and H. Hu. "Answering Why-Not Spatial Keyword Top-k Queries via Keyword Adaption." *Proc. the 32nd IEEE International Conference on Data Engineering (ICDE '16)*, Helsinki, Finland, May 2016, pp. 697-708.
 56. X. Lin, J. Xu, and H. Hu. "Reverse Keyword Search for Spatio-Textual Top-k Queries in Location-Based Services." *Proc. the 32nd IEEE International Conference on Data Engineering (ICDE '16)*, Helsinki, Finland, May 2016. (Poster Paper)
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B. Refereed Journal Papers

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4. B. Chen, H. Zhu, W. Liu, J. Yin, W.-C. Lee, and J. Xu. "Querying Optimal Routes for Group Meetup." *Springer Journal of Data Science and Engineering (DSE)*, 2021.
5. Z. Peng, J. Xu, X. Chu, S. Gao, Y. Yao, R. Gu, and Y. Tang. "VFChain: Enabling Verifiable and Auditable Federated Learning via Blockchain Systems." *IEEE Transactions on Network Science and Engineering (TNSE)*, accepted to appear, 2021.

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15. C. Song, K. H. Kwon, J. Xu, X. Huang, and S. Li. "Curbing Profanity Online: A Network-Based Diffusion Analysis of Profane Speech on Chinese Social Media." *New Media & Society*, 2020. (Impact factor = 4.18)
16. Z. Zhang, G. Wang, J. Xu, and X. Du. "A Survey of Blockchain Data Management." *Journal of Software*, 31(9), Sept 2020.
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55. Y. Tang, J. Xu, S. Zhou, W.-C. Lee, D. Deng, and Y. Wang. "A Lightweight Multi-dimensional Index for Complex Queries over DHTs." *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 22(12): 2046-2054, Dec. 2011.
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63. X. Tang, J. Xu, and W.-C. Lee. "Analysis of TTL-Based Consistency in Unstructured Peer-to-Peer Networks." *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 19(12): 1683-1694, December 2008.
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C. Edited Books / Proceedings

1. Y. Cai, Y. Ishikawa, and J. Xu (Eds.) *Web and Big Data, 2nd APWeb-WAIM Joint International Conference*. Lecture Notes in Computer Science, Vol. 10987, Springer, 2018.
2. B. Cui, N. Zhang, J. Xu, X. Lian, and D. Liu (Eds.) *Web-Age Information Management, 17th International Conference WAIM 2016*. Lecture Notes in Computer Science, Vol. 9658-9, Springer, 2016.
3. Y. Chen, W.-T. Balke, J. Xu, et al. (Eds.) *Web-Age Information Management - WAIM 2014 International Workshops: BigEM, HardBD, DaNoS, HRSUNE, BIDASYS*. Lecture Notes in Computer Science, Springer, 2014.
4. J. Wang, H. Xiong, Y. Ishikawa, J. Xu, and J. Zhou (Eds.) *Web-Age Information Management, 14th International Conference WAIM 2013*. Lecture Notes in Computer Science, Vol. 7923, Springer, 2013.
5. J. Xu, G. Yu, S. Zhou, and R. Unland (Eds.) *Database Systems for Advanced Applications, DASFAA 2011 International Workshops*. Lecture Notes in Computer Science, Vol. 6637, Springer, 2011.
6. X. Meng, Y. Chen, J. Xu, and J. Lu (Eds.) *Proceedings of the Second International CIKM Workshop on Cloud*

Data Management (CloudDB 2010), ACM, 2010.

7. X. Tang, J. Xu, and S. T. Chanson (Eds.) *Web Content Delivery*. New York: Springer Publisher, ISBN 0-387-24356-9, Springer, 2005.

D. Authored Books / Book Chapters

1. X. Huang, L. V.S. Lakshmanan, and J. Xu. “Community Search in Large Graphs.” Morgan & Claypool Publishers, August 2019.
2. C. Xu, C. Zhang, and J. Xu. “Verifiable Cloud Computing.” *Encyclopedia of Wireless Networks*. S. Shen, X. Lin, and K. Zhang, Eds., Springer, 2019.
3. H. Hu, J. Zhou, J. Xu, and J. K. Ng. “Positioning and Privacy in Location-based Services.” *Handheld Computing for Mobile Commerce: Applications, Concepts, and Technologies*. W.-C. Hu and Y. Zuo, Eds., Idea Group Publishing, Feb. 2010, pp. 279-299.
4. H. Hu, J. Xu, and X. Tang. “Energy Efficient Data Management.” *Sensor Network and Configuration: Fundamentals, Techniques, Platforms, and Experiments*, Chapter 12, N. P. Mahalik, Ed., New York: Springer Publisher, ISBN: 978-3-540-37364-3, 2007, pp. 259-279.
5. J. Xu. “Mobile Caching for Location-based Services.” *Encyclopedia of E-Commerce, E-Government and Mobile Commerce*, M. Khosrow-Pour, Ed., Idea Group Publishing, ISBN: 1-59140-799-0, March 2006.
6. J. Xu, H. Hu, X. Tang, and B. Zheng. “Mobile Cache Management.” *Wireless Information Highways*, Chapter 2, D. Katsaros et al., Eds., Idea Group Publishing, ISBN: 1-59140-568-8, 2005, pp. 32-59.
7. J. Xu and J. Liu. “Broadcast Scheduling Algorithms for Wireless Data Dissemination.” *Design and Analysis of Wireless Networks*, Chapter 8, Y. Pan and Y. Xiao, Eds., Nova Science, ISBN: 1-59454-186-8, 2004.
8. **J. Xu, D. L. Lee, Q. Hu, and W.-C. Lee. “Data Broadcast.” *Handbook of Wireless Networks and Mobile Computing*, I. Stojmenovic, Ed., Chapter 11, John Wiley & Sons, 2002, ISBN 0-471-41902-8, pp. 243-265.

E. Others

1. “Special issue on Web information management and applications.” (with Yi Cai). *World Wide Web*, 23(3): 2129-2130, 2020.
2. “Special Issue of APWeb-WAIM 2018.” (with Yi Cai and Qing Li). *Springer Journal of Data Science and Engineering*, 4(1): 1-2, March 2019.
3. “Community Search over Big Graphs: Models, Algorithms, and Opportunities.” (with Xin Huang and Laks V.S. Lakshmanan). Tutorial presented at *The 33rd IEEE International Conference on Data Engineering (ICDE '17)*, San Diego, April 2017.
4. “移动社交网络中的位置隐私保护.”(with H. Hu and Q. Chen). *中国计算机学会通讯*, 100(6): 58-63, June 2014.
5. “Flash-Based Database Systems: Experiences from the FlashDB Project.” (with X. Meng and L. Yue). In *Proc. the International Workshop on Flash-based Database Systems (FlashDB '11)*, April 2011. (Invited Talk)
6. “Editorial for Special Section: Scalable Information Systems.” (with W.-C. Lee, Jianzhong Li, and F. Silvestri). *Elsevier Journal of Future Generation Computer Systems (FGCS)*, 25(1): 51-52, January 2009.
7. “Data Access Techniques in Location-Based Services.” (with W.-C. Lee and B. Zheng). Tutorial presented at *The 7th Int. Conf. on Mobile Data Management (MDM '06)*, Nara, Japan, May 2006.
8. “Data Management in Location-Based Services.” (with W.-C. Lee and B. Zheng). Tutorial presented at *The 20th IEEE International Conference on Data Engineering (ICDE '04)*, Boston, March 2004.

INVITED TALKS

1. J. Xu, “Introduction to Blockchain.” *VLDB Summer School*, July 13-17, 2020. (**Invited Lecturer**)
2. J. Xu, “Blockchain Data Management: Challenges and Opportunities.” *The 36th National Database Conference (NDBC)*, Oct. 11-13, 2019. (**Invited Keynote**)
3. J. Xu, “Blockchain Data Management.” *The 8th Forum of Future Data (FFD)*, Nov 21-22, 2019. (**Invited Talk**)
4. J. Xu, “Towards Searchable Blockchain”, *The ACM Turing Celebration Conference - China (ACM TURC 2019)*, May 17-19, 2019. (**Invited Keynote**)
5. J. Xu, “Data Security and Privacy in Blockchain”, *The 3rd National Annual Conference on Data Security and*

- Privacy Protection (DSPP)*, September 27-29, 2018. (**Invited Talk**)
6. J. Xu, "Towards Trustworthy and Interactive Queries on Big Spatial Data", *The 2nd IEEE International Conference on Data Science in Cyberspace (DSC)*, June 26-29, 2017. (**Invited Talk**)
 7. J. Xu, "Big Spatial Data: Towards Interactive, Trustworthy and Social-Aware Search", *The 2nd HKUST CSE Alumni Homecoming Workshop on Systems, Applications, Networks, and Data (SAND)*, June 17, 2017. (**Invited Talk**)
 8. J. Xu, "Towards Interactive and Social-Aware Spatial Query Services", *The 18th Asia-Pacific Web Conference*, September 23-25, 2016. (**Distinguished Lecture**)
 9. J. Xu, "Querying Cloud Data with Confidentiality and Integrity Assurance", *The First Europe-China Workshop on Big Data Management*, Helsinki, Finland, May 16, 2016. (**Invited Talk**)
 10. J. Xu, "Secure Query Services in Outsourced Cloud Environments", *International Workshop on Ubiquitous Cyber Security*, Oct 29-30, 2015. (**Invited Plenary Talk**)
 11. J. Xu, "Authenticated Query Services in Data Outsourcing and Integration", *The 17th Asia-Pacific Web Conference*, September 18-20, 2015. (**Distinguished Young Lecture**)
 12. J. Xu, "Secure Query Services in Outsourced Cloud Environments", *CCF YOCSEF Shenzhen-HK Forum on Big Data*, Shenzhen, June 12, 2015. (**Invited Talk**)
 13. J. Xu, "Privacy-Aware Query Processing." *International Workshop on Big Data Privacy Management*, Beijing, May 14, 2015. (**Invited Talk**)
 14. J. Xu, "Location Privacy Protection in Geo-Social Networks." *CCF YOCSEF Forum on Privacy Protection in Social Networks*, Beijing, Feb. 28, 2014. (**Invited Talk**)
 15. J. Xu, "Research Experience Sharing through a Case Study on Authenticated Query Processing in Cloud ." *The 30th National Database Conference (NDBC)*, Haerbin, August 2013. (**Invited Tutorial Talk**)
 16. J. Xu, "Optimizing Transaction Logging and Recovery Performance with Phase-Change Memory", *Dagstuhl Seminar on Robust Query Processing*, August 2012. (**Invited Talk**)
 17. J. Xu, "Managing Data Effectively on Flash Memory Disks." *The 2011 International Workshop on Advanced Data Management (ADM 2011)*, December 2011. (**Invited Talk**)
 18. J. Xu, "Flash-Based Database Systems: Experiences from the FlashDB Project." *The First International Workshop on Flash-based Database Systems (FlashDB '11)*, April 2011. (**Invited Talk**)

US PATENTS

1. "Method for Index-based and Integrity-assured Search in a Blockchain" (with C. Xu and C. Zhang). US Non-Provisional Patent Application No. 16/828,982, filed on March 25, 2020.
2. "Method and Apparatus for Assuring Location Data Integrity with Minimum Location Disclosure" (with H. Hu and Q. Chen). US Non-Provisional Patent No. 9,973,514, filed on Oct. 26, 2015, granted on May 15, 2018.
3. "System and Method for Providing Proximity Information" (with H. Hu). US Non-Provisional Patent No. 9,351,116, filed on May 30, 2013, granted on May 24, 2016.
4. "Method and Apparatus for Authenticating Location-based Services without Compromising Location Privacy" (with H. Hu and Q. Chen). US Non-Provisional Patent No. 9,043,927, filed on Feb. 19, 2013, granted on May 26, 2015.

TEACHING (Ranging from year one fundamental courses to final year and postgraduate advanced courses)

- COMP1160/2016: Database Management (Spring 2006-2007, 2014; Fall 2007-2012, Spring 2013-2020)
- COMP2440: Database Systems II (Spring 2003-2005)
- COMP2840: Computer Architectures (Fall 2002, 2005)
- COMP2860: Web Systems Application Development (Fall 2003-2004)
- COMP3140: Computer and Network Security (Fall 2009)
- COMP3220/4035: Database System Implementation (Spring 2007-2017)
- COMP3670: Mobile Computing (Fall 2014)
- COMP3820: Information Systems Security and Auditing (Spring 2003-2005, 2011)
- COMP7640: Database Systems and Administration (Fall 2005, 2010, 2012-2013, 2015-2018)

- COMP7160: Research Methods in Computer Science (Fall 2019)
- I.T.1510: World Wide Web Application Development (Fall 2006)

ADVISING

A. Students/Postdoctoral Fellows

- Haixin Wang, PhD Student, Started in Fall 2019, Research Topic: “Blockchain As A Service.”
- Xiaoguo Li, Postdoctoral Fellow, 2019-, Research Topic: “Federated Data Analytics”
- Cheng Xu, Postdoctoral Fellow, 2019-, Research Topic: “Blockchain Systems.”
- Qing Liu, Postdoctoral Fellow, 2017-, Research Topic: “Graph and Spatial Query Processing.”
- Yang Ji, PhD Student, Started in Fall 2018, Research Topic: “Blockchain and Trusted Hardware.”
- Ce Zhang, PhD Student, Started in Fall 2017, Research Topic: “Verifiable Search in Distributed Computing.”
- Xiaoyi Fu, PhD Student, Graduated in Dec. 2019, Research Topic: “Social-aware Ridesharing.” (*first employment, Lecturer, Hong Kong Baptist University, Hong Kong*)
- Cheng Xu, PhD Student, Graduated in Feb. 2019, Research Topic: “Query Authentication.” (*first employment, Postdoc Fellow, Hong Kong Baptist University, Hong Kong*)
- Shangwei Guo, Postdoctoral Fellow, 2018-2019, Research Topic: “Verifiable Multimedia Search.” (*first employment, Postdoc Fellow, Nanyang Technological University, Singapore*)
- Lei Chen, PhD Student, Graduated in Dec 2016, Thesis Title: “Answering Why-Not Questions on Spatial Keyword Top- k Queries.” (*first employment: Researcher, Huawei Noah’s Ark Lab, Hong Kong*)
- Jingjing Chen, PhD Students, Graduated in Summer 2016, Thesis Title: “Enhancing Student Engagement and Interaction in E-learning Environments through Learning Analytics and Wearable Sensing.” (*first employment: Assistant Professor, Zhejiang University of Technology, China*)
- Yafei Li, PhD Student, Graduated in Summer 2015, Thesis Title: “Efficient Group Queries in Location-based Social Networks.” (*first employment: Assistant Professor, Zhengzhou University, China*)
- Qian Chen, PhD Student, Graduated in Summer 2015, Thesis Title: “Query Authentication in Data Outsourcing and Integration Services.” (*first employment: Senior R&D Engineer, NetEase Games, Hangzhou, China; current employment: Software Engineer, Google*)
- Zhe Fan (Co-supervisor), PhD Student, Graduated in Summer 2015, Thesis Title: “Secure Subgraph Query Services” (*first employment: Senior Software Engineer, Huawei, Shenzhen, China*)
- Xiaofeng Ding, Postdoctoral Fellow, 2014, Research Topic: “Privacy Management for Big Data.” (Supported by the Hong Kong Scholars Program) (*first employment: Associate Professor, Huazhong University of Science and Technology, Wuhan, China*)
- Dingming Wu, Postdoctoral Fellow, 2011-2013, Research Topic: “Social-aware Spatial Keyword Queries.” (*first academic employment: Assistant Professor, Shenzhen University, Shenzhen, China*)
- Xin Lin, Postdoctoral Fellow, 2011-2013, Research Topic: “Mobile Query Authentication.” (Supported by the First Hong Kong Scholars Program) (*first employment: Associate Professor, East China Normal University, Shanghai, China*)
- Yun Peng (Co-supervisor), PhD Student, Graduated in Summer 2013, Thesis Title: “Estimation Techniques for Advanced Database Application.” (*first employment: Postdoc Fellow, Nanyang Technological University, Singapore; current employment: Advisory Researcher, Lenovo Big Data Research Centre, HK*)
- Shen Gao, MPhil Candidate, Graduated in Summer 2013, Thesis Title: “Transaction Logging and Recovery for Phase-Change Memory.” (*first placement: PhD student at University of Zurich; current employment: Software Engineer, Google, Zurich*)
- Hong Ping Li, MPhil Candidate, Graduated in Spring 2013, Thesis Title: “Secure Proximity Queries in Mobile Geo-Social Services” (*first employment: ICT Graduate Trainee, PCCW, HK*)
- Yu Li, PhD Student, Graduated in Summer 2011, Thesis Title: “Indexing and Query Processing for Flash-based Database Systems.” (*first employment: Senior Software Engineer, Tencent, China; current employment:*

Solution Engineer, Facebook).

- Jintian Deng (Co-supervisor), MPhil Student, Graduated in Summer 2011, Thesis Title: “Incremental Maintenance of Minimal and Minimum Bisimulation of Cyclic Graphs.” (*first employment: Software Engineer, Alibaba, China*)
- Chushi Ren, FYP Student, Graduated in Summer 2011 with First-Class Honor, Undergraduate Thesis Title: “iGreen: Enabling Privacy-Preserving Location-based Services.” (*first placement: Postgraduate Student at University of Pennsylvania*).
- Sai Tung On, MPhil Student, Graduated in Summer 2010, Thesis Title: “Efficient Transaction Recovery in Flash-based Databases.” (*first employment: System Developer, Vegasoul Fund, HK*)
- Haibo Hu, Postdoctoral Fellow, 2006-2008, Research Topic: “Trustworthy Monitoring of Continuously Moving Objects.” (*first employment: Research Assistant Professor, HKBU; current employment: Assistant Professor, Hong Kong Polytechnic University*)
- Jing Du, MPhil Student, Graduated in Summer 2007, Thesis Title: “Privacy-Preserving Data Access in Mobile Computing Environments.” (*first employment: R&D Leader, Rose Datasystems, China*)
- Minji Wu, MPhil Student, Graduated in Summer 2006, Thesis Title: “Energy-Efficient Query Processing in Wireless Sensor networks.” (*first placement: PhD student at Rutgers University; current employment: Software Engineer, Microsoft*)
- MSc Students: Qinghui Liu (2009), Cheong Chi Joey Li (2008), Zhijun Li (2008), Yan Lu (2008), Ruming Wu (2007), Yicong Huang (2007), Tak Chung Lee (2007), Kwok Cheong Tang (2007), Nan Huang (2007)

B. Student Achievements

- PhD supervisor, Ce Zhang won **Student Travel Award** from **IEEE ICDE 2019**
- PhD supervisor, Cheng Xu won **Student Travel Award** from **ACM SIGMOD 2018**
- Supervisor, Wenzhou Wei and Haixin Wang won the **Third Prize** in **2017 HSBC FinTech (Safeguard App) Competition**
- PhD supervisor, Yafei Li won **2016 ACM China Doctoral Dissertation Award Chapter Winner**
- PhD supervisor, Lei Chen won **Student Travel Award** from **IEEE ICDE 2015**
- PhD supervisor, Qian Chen won **Student Travel Awards** from **ACM SIGMOD 2012** and **IEEE ICDE 2013**
- FYP & MPhil Supervisor, FlashDB project (by Gao Shen) won the **First-Class Award in the 12th National Challenge Cup Contest**, October 2011. (8% of the shortlisted projects were awarded First-Class Awards)
- FYP Supervisor, Chushi Ren won the **2nd Runner-up Prize** in Hong Kong and **Bronze Prize** in the Final Round of the 2011 Amway Pan-Pearl River Delta Region Universities IT Project Competition (participated by 136 universities in the Pan-Pearl River Delta Region)
- FYP Supervisor, Shen Gao won a **Merit Prize** in the 2010 HKEIA Innovation & Technology Project Competition Award (10 awarded out of 30+ project submissions from all local universities)
- FYP Supervisor, Shen Gao won the **3rd Runner-up Prize** in Hong Kong and **Bronze Prize** in the Final Round of the 2010 Amway Pan-Pearl River Delta Region Universities IT Project Competition
- Co-advisor, Xingjie Liu won the **Best Student Paper Award Runner-up** in the 15th Intl. Conference on Database Systems for Advanced Applications (DASFAA), 2010
- Coach, five student teams won the **Champion University Award** in 2008 IBM DB2 Inter-University Programming Contest, which consists of 28 teams from eight universities in Hong Kong and Macau
- Co-advisor, Haibo Hu won the **ACM-HK Best PhD Paper Award**, 2005

C. PhD Thesis External Examiners

- 30+ PhD theses for Technical University of Kaiserslautern (Germany), Queensland University (Australia), University of New South Wales (Australia), University of Technology Sydney (Australia), National University of Singapore (Singapore), Nanyang Technological University (Singapore), University of Hong Kong, Hong Kong University of Science and Technology, Chinese University of Hong Kong, City University of Hong Kong, Hong Kong Polytechnic University

PROFESSIONAL SERVICES

A. Journal Editorship

- Associate Editor, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2014 – 2020
- Associate Editor, *Proceedings of the VLDB Endowment (PVLDB)*, 2017 – 2018
- Associate Editor, *International Journal of Information Science and Engineering (JISE)*, 2016 – Present
- Editor, *International Journal of Distributed Sensor Networks (IJDSN)*, Hindawi, 2010 – 2014
- Review Board Member, *Proceedings of the VLDB Endowment (PVLDB)*, 2013-2014, 2016-2017, 2018-2021
- Guest Editor, *World Wide Web Journal (WWWJ)*, Springer, 2020
- Guest Editor, *Distributed and Parallel Databases (DAPD)*, Springer, 2020
- Guest Editor, *Data Science and Engineering (DSE)*, Springer, 2019
- Guest Editor, *Future Generation Computer Systems*, Elsevier, 2009

B. Department/Faculty/University Services

- Convenor, University Research Cluster on Data Analytics and AI, HKBU, 2019 – 2022
- Acting Associate Dean (Research), Faculty of Science, HKBU, 2020 – 2021
- Senate Member, HKBU, 2018 – 2020
- Member of e-Learning Committee, HKBU, 2018 – 2020
- Associate Head (Research & Development), Department of Computer Science, HKBU, 2017 –
- Management Committee Member, Data and Media Communication (DMC) Interdisciplinary Concentration, 2017 –
- Chair, Departmental Research Committee, HKBU, 2016 –
- TA/Instructor Coordinator, Department of Computer Science, HKBU, 2018 –
- Coordinator, Departmental Research Postgraduate Programme, HKBU, 2016 –
- Member of Departmental Management Committee, 2013 –
- Acting Associate Head, Department of Computer Science, HKBU, January – July 2016
- Acting Chair of Departmental Undergraduate Management Committee, January – July 2016
- Acting Programme Coordinator, BSc (Hons) in Computer Science, January – July 2014
- Member of Faculty Review Panel, 2014 – 2016
- Member of Departmental Review Panel, 2013 – 2017
- Member of Faculty Task Force on Research Assessment Exercise, 2012 – 2014
- Member of Faculty Task Force on PhD Fellowship Scheme, 2013 - 2014
- Member, Science Elite Programme, 2013 – 2014
- Member of Accreditation Panel for HKBU-UIC Computer Science & Technology Program, 2013
- Coordinator of HKIE Accreditation Exercise on BSc (Hons) Degree in CS / IS Programme, 2012
- Departmental Coordinator for RGC's Visit, 2011
- Chinese Medicine & Science Specialist Panel, 2008 – 2018
- Departmental Four-Year Curriculum Committee (chairing Task Force Group #1 with focus on fundamental courses), 2008 – 2011
- Final Year Project (Computer Science) Coordinator and Faculty Project Committee Member, 2004 – 2016
- External Examiner of HKBU-UIC Computer Science & Technology Program, 2010 – Present
- Faculty & Department System Security Review Task Force Co-Chair, 2008
- University Complementary Studies Committee Member, 2005 – 2006
- Computer Science Program Committee Member, 2002 – Present
- PG-Day Coordinator, 2005 – 2006
- Departmental Colloquium Coordinator, 2002 – 2006
- Faculty Safety / Workshop Committee Member, 2003 – 2004

C. Professional Organization Services

- Member, The Sciences, Medicine, Engineering and Technology Selection Panel (S-Panel) of the Hong Kong PhD Fellowship Scheme and Postdoctoral Fellowship Scheme, 2019 - 2021
- Member, Hong Kong RGC Engineering Panel, 2016 – 2022
- Advisory Committee Member, School of Decision Sciences, Hang Seng University of Hong Kong, 2017 – 2019
- Vice Chairperson, ACM SIGMOD Hong Kong Chapter, 2013 – 2016
- Vice Chairperson, ACM Hong Kong Chapter, 2008 – 2010
- Executive Committee Member, ACM Hong Kong Chapter, 2003 – 2010
- Judge, ACM-HK Collegiate Programming Contest, 2008
- Proposal Reviewer, Hong Kong Research Grants Council, 2008

D. Conference / Workshop Organization

- General Co-Chair, The 22nd IEEE International Conference on Mobile Data Management (MDM '21), Toronto, Canada, June 2021.
- TPC Co-Chair, The 37th National Database Conference (NDBC '20), October 2020.
- TPC Co-Chair, The 2nd IEEE International Workshop on Blockchain and Data Management (BlockDM '20), in conjunction with ICDE, April 2020.
- TPC Co-Chair, The 20th IEEE International Conference on Mobile Data Management (MDM '19), Hong Kong, June 2019.
- TPC Co-Chair, The 1st IEEE International Workshop on Blockchain and Data Management (BlockDM '19), in conjunction with ICDE, April 2019.
- TPC Co-Chair, The 2nd APWeb-WAIM Joint Conference on Web and Big Data, Macau, July 2018.
- TPC Co-Chair, The 17th International Conference on Web-Age Information Management (WAIM '16), Nanchang, China, June 2016.
- TPC Co-Chair, The Third IEEE International Conference on Cyber-Physical Systems, Networks, and Applications (CPSNA'15), Hong Kong, August 2015.
- TPC Track Chair, The 2014 National Conference on Social Media Processing (SMP '14), Beijing, China, November 2014.
- TPC Co-Chair, The Second International Workshop on Big Data Management on Emerging Hardware (HardBD '14), Macau, China, June 2014.
- TPC Co-Chair, The 2013 IEEE International Workshop on Big Data Analytics in Mobile Social Networks (BigMSN '13), Fuzhou, China, December 2013.
- TPC Vice-Chair, The 32nd IEEE International Conference on Distributed Computing Systems (**ICDCS 2012**), Macau, China, June 2012.
- TPC Vice-Chair and Best Paper Selection Committee Member, The 18th IEEE International Conference on Parallel and Distributed Systems (ICPADS 2012), Singapore, November 2012.
- TPC Co-Chair, The 2nd Intl. Workshop on Flash-based Database Systems (FlashDB 2012), Busan, South Korea, April 2012.
- TPC Co-Chair, The 2nd ACM Intl. Workshop on Cloud Data Management (CloudDB 2010), Toronto, Canada, October 2010.
- TPC Co-Chair, The 2nd Intl. Workshop on Peer-to-Peer Computing for Information Search (P2PSearch '08), Hainan Island, China, December 2008.
- TPC Co-Chair, International Workshop on P2P Information Management (P2PIM '06), Hong Kong, May 2006.
- Local Organizing Team Member, ICDE 2019, Macau, April 2019
- Best Paper Committee Member, DASFAA 2017, Suzhou, China, March 2017
- Publicity Co-Chair, Int'l Conf. on Privacy-Aware Computing (PAC 2017), Washington DC, USA, August 2017
- Publication Co-Chair, NDBC 2016, Shenzhen, China, Oct 2016
- Publicity Co-Chair, BigCOMP 2016, Hong Kong, China, Jan. 2016
- Student Activities Co-Chair, INFOCOM 2015, Hong Kong, China, April 2015

- Workshop Co-Chair, The 15th International Conference on Web-Age Information Management (WAIM), Macau, China, June 2014
- Publication Co-Chair, The 14th International Conference on Web-Age Information Management (WAIM), Beidaihe, China, June 2013
- Demo Co-Chair, The 18th Intl. Conference on Database Systems for Advanced Applications (DASFAA), Wuhan, China, April 2013
- Workshop Co-Chair, The 14th IEEE International Conference on Mobile Data Management (MDM), Milan, Italy, June 2013
- Workshop Co-Chair, The 16th Intl. Conference on Database Systems for Advanced Applications (DASFAA), Hong Kong, April 2011
- Publicity Co-Chair, The 10th Intl. Conf. on Mobile Data Management (MDM '09), Taipei, Taiwan, May 2009
- Seminar Co-Chair, The 9th Intl. Conf. on Mobile Data Management (MDM '08), Beijing, China, April 2008
- Publication Chair, The 2nd Intl. Conf. on Mobile Ad-hoc and Sensor Networks (MSN '06), Hong Kong December 2006.
- Organizing Committee Member, IEEE ICDM '06 / WI '06 / IAT '06, Hong Kong, December 2006.
- Local Arrangement Co-Chair, IEEE INFOCOM '04, Hong Kong, March 2004.

E. Conference/Workshop Technical Program Committee (TPC) Member

- ACM SIGMOD International Conference on Management of Data (SIGMOD): 2011 (Demo), 2015, 2022
- International Conference on Very Large Data Bases (VLDB): 2014, 2017, 2019, 2020, 2021
- IEEE International Conference on Data Engineering (ICDE): 2009-2012, 2015-2016 (Demo), 2018-2021
- International World Wide Web Conference (WWW): 2008, 2009, 2018
- IEEE International Conference on Big Data (BigData): 2013, 2014, 2017-2018 (Senior PC Member)
- ACM Conference on Information and Knowledge Management (CIKM): 2009, 2010, 2019 (Senior PC Member)
- The APWeb-WAIM Joint Conference on Web and Big Data: 2017 (Senior PC Member)
- IEEE International Conference on Mobile Data Management (MDM): 2004, 2006, 2008-2019
- International Conference on Database- and Expert Systems Applications (DEXA): 2009, 2010
- International Conference on Database Systems for Advanced Applications (DASFAA): 2010-2021
- International Conference on Web-Age Information Management (WAIM): 2006, 2007, 2009-2015
- International Conference on Distributed Computing in Sensor Systems (DCOSS): 2015
- International ACM Workshop on Data Engineering for Wireless and Mobile Access (MobiDE): 2012
- ACM International Workshop on Mobile Geographic Information Systems (MobiGIS): 2012-2015
- IFIP international conference on Distributed Applications and Interoperable Systems (DAIS): 2009
- ACM Symposium on Applied Computing (SAC): 2003-2015
- Asia-Pacific Web Conference (APWeb): 2007-2016
- ICDE Workshop on Uncertain Data Management: 2009
- IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC): 2008
- International Conference on Embedded Software and Systems (ICCESS): 2008
- VLDB Workshop on Data Management for Sensor Networks (DMSN): 2006, 2007, 2008, 2010
- ICDE Workshop on RFID Data Management (RFDM): 2008
- ICDE Workshop on Ambient Intelligence, Media, and Sensing (AIMS): 2007
- MDM Workshop on Privacy-Aware Location-based Mobile Services (PALMS): 2007, 2008, 2009
- SIGMOD PhD Workshop on Innovative Database Research (IDAR): 2007
- IFIP International Conference on Embedded and Ubiquitous Computing (EUC): 2006, 2007, 2008, 2009
- Annual International Conference on Mobile and Ubiquitous Systems (MobiQuitous): 2007
- International Conference on Communications and Networking in China (CHINACOM): 2007, 2008
- SIWN International Conference on Complex Open Distributed Systems (CODS): 2007
- International Conference on Scalable Information Systems (INFOSCALE): 2007, 2009

- International workshop on DataBase Management and Application over Networks (DBMAN): 2007
- ICDCS Workshop on Mobile Distributed Computing (MDC): 2004-2007
- Annual IEEE Consumer Communications and Networking Conference (CCNC): 2007
- ICDM Workshop on Spatial and Spatio-temporal Data Mining (SSTDM): 2006
- IEEE TENCON Conference: 2006
- International Workshop on INformation Processing over Evolving Networks (WINPEN): 2006
- International Symposium on Pervasive Computing and Applications: 2006
- International Conference on Mobile Ad-hoc and Sensor Networks (MSN): 2005
- IEEE International Conference on e-Business Engineering (ICEBE): 2005, 2011
- International Symposium on Parallel and Distributed Processing and Applications (ISPA): 2005
- International Conference on Real-Time and Embedded Computing Systems and Applications (RTCSA): 2005
- International Workshop on Web Based Collaboration (WBC): 2003, 2004, 2005
- International Human.Society@Internet Conference (HSI): 2003, 2005
- Annual IEEE Conference INFOCOM: 2004

F. Reviewer/Referee

- ACM Transactions on Database Systems (TODS)
- ACM Transactions on Storage
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Parallel and Distributed Systems (TPDS)
- IEEE Transactions on Wireless Communications (TWC)
- IEEE Transactions on Mobile Computing (TMC)
- IEEE Transactions on Multimedia (TMM)
- IEEE Transactions on Vehicular Technology (TVT)
- IEEE Transactions on Systems, Man and Cybernetics (SMC)
- IEEE Transactions on Industrial Informatics (TII)
- Very Large Data Base Journal (VLDBJ)
- ACM Journal of Wireless Networks (WINET)
- Information Systems
- World Wide Web Journal
- IEEE Personal Communications Magazine
- IEEE Communications Letters
- Information Sciences