

# Curriculum Vitae

## Xiang Lian

(PhD, HKUST, 2009)

Mathematics and Computer Science Building, Room 264

Department of Computer Science, Kent State University

1300 Lefton Esplanade, Kent, OH 44242, USA

Tel: (+1) 330-672-9063 (*Office*)

Email: [xlilian@kent.edu](mailto:xlilian@kent.edu)

Homepage: <http://www.cs.kent.edu/~xlilian/index.html>

## PERSONAL INFORMATION

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First Name: Xiang

Gender: Male

Surname: Lian

Nationality: China (Permanent Resident of Hong Kong and USA)

## EDUCATION

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- **PhD** in Computer Science and Engineering, Advisor: Dr. Lei Chen **Sept., 2003 ~ Aug., 2009**  
Department of Computer Science and Engineering  
*The Hong Kong University of Science and Technology*, Hong Kong, China
- **Bachelor** in Computer Science **Sept., 1999 ~ Jun., 2003**  
Department of Computer Science and Technology  
*Nanjing University*, Nanjing, Jiangsu, China

## RESEARCH INTERESTS

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My main research interest is in databases. In particular, I am interested in query processing over:

- Probabilistic, inconsistent, and uncertain databases;
- Uncertain and certain graph databases;
- Streaming time series; and
- Spatial databases.

## WORK EXPERIENCE

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- **Assistant Professor**, *Kent State University*, **Sept., 2016 ~ present**
- **Assistant Professor**, *University of Texas Rio Grande Valley (Edinburg Campus; Former Name: University of Texas - Pan American)*, **Sept., 2011 ~ Aug., 2016**
- **Research Assistant Professor**, *HKUST Fok Ying Tung Graduate School*, **Sept., 2010 ~ Sept., 2011**
- **Post-Doctoral Fellow**, *the Hong Kong University of Science and Technology*, **Sept., 2009 ~ Sept., 2011**
- **Research Assistant**, *the Hong Kong University of Science and Technology*, **Spring, 2009**
- **Research Assistant**, *the Hong Kong University of Science and Technology*, **Fall, 2008**
- **Research Assistant**, *the Hong Kong University of Science and Technology*, **Fall, 2007**
- **Research Assistant**, *the Hong Kong University of Science and Technology*, **Fall, 2005**

## REFEREED JOURNAL ARTICLES

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### Year 2016

1. **Xiang Lian** and Lei Chen. Quality-Aware Subgraph Matching Over Inconsistent Probabilistic Graph Databases. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2016.

2. Weiguo Zheng, **Xiang Lian**, Lei Zou, Liang Hong, and Dongyan Zhao. Online Subgraph Skyline Analysis Over Knowledge Graphs. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2016.
3. Ye Yuan, **Xiang Lian**, Lei Chen, Yongjiao Sun, and Guoren Wang. RSkNN: kNN Search on Road Networks by Incorporating Social Influence. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2015.
4. Peng Cheng, **Xiang Lian**, Lei Chen, Jinsong Han, and Jizhong Zhao. Task Assignment on Multi-Skill Oriented Spatial Crowdsourcing. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2016.

**Year 2015**

5. **Xiang Lian**, Lei Chen, and Zi Huang. Keyword Search Over Probabilistic RDF Graphs. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(5), pages 1246-1260, 2015.
6. Liang Hong, Lei Zou, **Xiang Lian**, and Philip S. Yu. Subgraph Matching with Set Similarity in a Large Graph Database. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(9), pages 2507-2521, 2015.
7. Weiguo Zheng, Lei Zou, **Xiang Lian**, Dong Wang, and Dongyan Zhao. Efficient Graph Similarity Search over Large Graph Databases. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(4), pages 964-978, 2015.

**Year 2014**

8. **Xiang Lian** and Lei Chen. Trip Planner Over Probabilistic Time-Dependent Road Networks. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 26(8), pages 2058-2071, 2014.
9. Weiguo Zheng, Lei Zou, **Xiang Lian**, Huaming Zhang, Wei Wang, and Dongyan Zhao. SQBC: An Efficient Subgraph Matching Method Over Large and Dense Graphs. In *Information Sciences (ISCI)*, 261, pages 116-131, 2014.

**Year 2013**

10. **Xiang Lian** and Lei Chen. Probabilistic Top-k Dominating Queries in Uncertain Databases. In *Information Sciences (ISCI)*, 226, pages 23-46, 2013.
11. **Xiang Lian**, Eugenio De Hoyos, Artem Chebotko, Bin Fu, and Christine Reilly. k-Nearest Keyword Search in RDF Graphs. In *Journal of Web Semantics (JWS)*, 22, pages 40-56, 2013.

**Year 2012**

12. **Xiang Lian** and Lei Chen. Subspace Similarity Search Under  $L_p$ -Norm. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 24(2), pages 365-382, 2012.
13. **Xiang Lian** and Lei Chen. Efficient Processing of Probabilistic Group Subspace Skyline Queries in Uncertain Databases. In *Information Systems (IS)*, 38(3), pages 265-285, 2012.
14. Xiaofeng Ding, **Xiang Lian**, Lei Chen, and Hai Jin. Continuous Monitoring of Skylines Over Uncertain Data Streams. *Information Sciences (ISCI)*, 184(1), pages 196-214, 2012.

**Year 2011**

15. **Xiang Lian** and Lei Chen. Shooting Top-k Stars in Uncertain Databases. In *Very Large Data Bases Journal (VLDBJ)*, 20(6), pages 819-840, 2011.
16. **Xiang Lian** and Lei Chen. Probabilistic Inverse Ranking Queries in Uncertain Databases. In *Very Large Data Bases Journal (VLDBJ)*, 20(1), pages 107-127, 2011.
17. **Xiang Lian** and Lei Chen. Similarity Join Processing on Uncertain Data Streams. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 23(11), pages 1718-1734, 2011.
18. **Xiang Lian**, Lei Chen, and Guoren Wang. Finding the Least Influenced Set in Uncertain Databases. In *Information Systems (IS)*, 36(2), pages 359-385, 2011.
19. Ke Yi, **Xiang Lian**, Feifei Li, and Lei Chen. The World in a Nutshell: Concise Range Queries. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 23(1), pages 139-154, 2011.

**Year 2010**

20. **Xiang Lian** and Lei Chen. Reverse Skyline Search in Uncertain Databases. In *ACM Transactions on Database Systems (TODS)*, 35(1), 2010.

21. **Xiang Lian** and Lei Chen. Ranked Query Processing in Uncertain Databases. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 22(3), pages 420-436, 2010.
22. Lei Chen, Mitchell Tseng, and **Xiang Lian**. Development of foundation models for Internet of Things. In *Frontiers of Computer Science (FCS)*, 4(3), pages 376-385, 2010.

**Year 2009**

23. **Xiang Lian** and Lei Chen. Efficient Processing of Probabilistic Reverse Nearest Neighbor Queries over Uncertain Data. In *Very Large Data Bases Journal (VLDBJ)*, 18(3), pages 787-808, 2009.
24. **Xiang Lian** and Lei Chen. Efficient Similarity Join over Multiple Stream Time Series. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 21(11), pages 1544-1558, 2009.
25. **Xiang Lian** and Lei Chen. General Cost Models for Evaluating Dimensionality Reduction in High Dimensional Spaces. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 21(10), pages 1447-1460, 2009.
26. **Xiang Lian**, Lei Chen, Jeffrey Xu Yu, Jinsong Han, and Jian Ma. Multi-Scale Representations for Fast Pattern Matching in Stream Time Series. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 21(4), pages 568-581, 2009.
27. Lei Chen and **Xiang Lian**. Efficient Processing of Metric Skyline Queries. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 21(3), pages 351-365, 2009.
28. **Xiang Lian** and Lei Chen. Efficient Pattern Matching over Uncertain Data Streams (*The HKIE Outstanding Paper Award*). In the *HKIE Transactions*, 16(4), pages 9-18, 2009.

**Year 2008**

29. **Xiang Lian** and Lei Chen. Probabilistic Group Nearest Neighbor Queries in Uncertain Databases. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 20(6), pages 809-824, 2008.
30. **Xiang Lian** and Lei Chen. Efficient Similarity Search over Future Stream Time Series. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 20(1), pages 40-54, 2008.
31. Lei Chen and **Xiang Lian**. Efficient Similarity Search in Nonmetric Spaces with Local Constant Embedding. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 20(3), pages 321-336, 2008.

**Year 2007**

32. Yufei Tao, **Xiang Lian**, Dimitris Papadias, and Marios Hadjieleftheriou. Random Sampling for Continuous Streams with Arbitrary Updates. In *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 19(1), pages 96-110, 2007.
33. Yufei Tao, Dimitris Papadias, **Xiang Lian**, and Xiaokui Xiao. Multidimensional Reverse  $k$ NN Search. In *Very Large Data Bases Journal (VLDBJ)*, 16(3), pages 293-316, 2007, invited submission from best of *VLDB* 2004.

**REFEREED CONFERENCE PUBLICATIONS**

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**Year 2015**

34. Weiguo Zheng, Lei Zou, **Xiang Lian**, Jeffrey Xu Yu, Shaoxu Song, and Dongyan Zhao. How to Build Templates for RDF Question/Answering - An Uncertain Graph Similarity Join Approach. In Proceedings of the *ACM Conference on the Management of Data (SIGMOD'15)*, pages 1809-1824, Melbourne, VIC, Australia, May 31 - Jun. 4, 2015.
35. Peng Cheng, **Xiang Lian**, Zhao Chen, Lei Chen, Jinsong Han, and Jizhong Zhao. Reliable Diversity-Based Spatial Crowdsourcing by Moving Workers. In Proceedings of the *Very Large Data Bases Conference (PVLDB'15)*, Kohala, Hawai'i, USA, Aug. 31 - Sept. 4, 2015.

**Year 2014**

36. Xiaochen Zhu, Shaoxu Song, **Xiang Lian**, Jianmin Wang, Lei Zou. Matching Heterogeneous Event Data. In Proceedings of the *ACM Conference on the Management of Data (SIGMOD'14)*, pages 1211-1222, Snowbird, Utah, USA, Jun. 22-27, 2014.

37. Weiguo Zheng, Lei Zou, **Xiang Lian**, Liang Hong, and Dongyan Zhao. Efficient Subgraph Skyline Search Over Large Graphs. In Proceedings of the *ACM Conference on Information and Knowledge Management (CIKM'14)*, Shanghai, China, Nov. 3-7, 2014. *Acceptance rate: 20.8%*.

#### Year 2013

38. **Xiang Lian** and Lei Chen. Causality and Responsibility: Probabilistic Queries Revisited in Uncertain Databases. In Proceedings of the *ACM Conference on Information and Knowledge Management (CIKM'13)*, San Francisco, CA, USA, Oct. 27 - Nov. 1, 2013. *Acceptance rate: 16.9%*.
39. Weiguo Zheng, Lei Zou, **Xiang Lian**, Dong Wang, and Dongyan Zhao. Graph Similarity Search with Edit Distance Constraint in Large Graph Databases (short paper). In Proceedings of the *ACM Conference on Information and Knowledge Management (CIKM'13)*, San Francisco, CA, USA, Oct. 27 - Nov. 1, 2013. *Acceptance rate: 29.4%*.

#### Year 2011

40. **Xiang Lian** and Lei Chen. Efficient Query Answering in Probabilistic RDF Graphs. In Proceedings of the *ACM Conference on the Management of Data (SIGMOD'11)*, Athens, Greece, June 12-16, 2011.
41. **Xiang Lian**, Yincheng Lin, and Lei Chen. Cost-Efficient Repair in Inconsistent Probabilistic Databases (short paper). In Proceedings of the *ACM Conference on Information and Knowledge Management (CIKM'11)*, pages 1731-1736, Glasgow, United Kingdom, Oct. 24-28, 2011.
42. **Xiang Lian** and Lei Chen. Probabilistic Time Consistent Queries over Moving Objects. In Proceedings of the *International Conference on the Scientific and Statistical Database Management (SSDBM'11)*, pages 168-188, Portland, OR, USA, July 20-22, 2011.

#### Year 2010

43. **Xiang Lian**, Lei Chen, and Shaoxu Song. Consistent Query Answers in Inconsistent Probabilistic Databases. In Proceedings of the *ACM Conference on the Management of Data (SIGMOD'10)*, pages 303-314, Indianapolis, Indiana, USA, Jun. 6-11, 2010. *Acceptance rate: 19%*.
44. **Xiang Lian** and Lei Chen. Set Similarity Join on Probabilistic Data. In Proceedings of the *Very Large Data Bases Conference (PVLDB'10)*, 3(1), pages 650-659, Singapore, Sept. 13-17, 2010. *Acceptance rate: 16.7%*.
45. **Xiang Lian** and Lei Chen. A Generic Framework for Handling Uncertain Data with Local Correlations. In Proceedings of the *Very Large Data Bases Conference (PVLDB'10)*, 4(1), pages 12-21, Seattle, USA, 2010.

#### Year 2009

46. **Xiang Lian** and Lei Chen. Top-*k* Dominating Queries in Uncertain Databases. In Proceedings of the *International Conference on Extending Database Technology (EDBT'09)*, pages 660-671, Saint-Petersburg, Russia, Mar. 24-26, 2009. *Acceptance rate: 32.5%*.
47. **Xiang Lian** and Lei Chen. Efficient Join Processing on Uncertain Data Streams. In Proceedings of the *ACM Conference on Information and Knowledge Management (CIKM'09)*, pages 857-866, Hong Kong, China, Nov. 2-6, 2009. *Acceptance rate: 14.5%*.
48. **Xiang Lian** and Lei Chen. Probabilistic Inverse Ranking Queries over Uncertain Data (**Best Paper Award**). In Proceedings of the *International Conference on Database Systems for Advanced Applications (DASFAA'09)*, pages 35-50, Brisbane, Australia, Apr. 21-23, 2009. *Acceptance rate: 20.9%*.
49. Ke Yi, **Xiang Lian**, Feifei Li, and Lei Chen. A Concise Representation of Range Queries (short paper). In Proceedings of the *International Conference on Data Engineering (ICDE'09)*, pages 1179-1182, Shanghai, China, Mar. 29 - Apr. 4, 2009. *Acceptance rate: 27%*.

#### Year 2008

50. **Xiang Lian** and Lei Chen. Monochromatic and Bichromatic Reverse Skyline Search over Uncertain Databases. In Proceedings of the *ACM Conference on the Management of Data (SIGMOD'08)*, pages 213-226, Vancouver, Canada, Jun. 9-12, 2008. *Acceptance rate: 17.9%*.

51. **Xiang Lian** and Lei Chen. Similarity Search in Arbitrary Subspaces under  $L_p$ -Norm. In Proceedings of the *International Conference on Data Engineering (ICDE'08)*, pages 317-326, Cancún, México, Apr. 7-12, 2008. *Acceptance rate: 19.2%*.
52. **Xiang Lian** and Lei Chen. Probabilistic Ranked Queries in Uncertain Databases. In Proceedings of the *International Conference on Extending Database Technology (EDBT'08)*, pages 511-522, Nantes, France, Mar. 25-30, 2008. *Acceptance rate: 16.7%*.
53. Lei Chen and **Xiang Lian**. Dynamic Skyline Queries in Metric Spaces. In Proceedings of the *International Conference on Extending Database Technology (EDBT'08)*, pages 333-343, Nantes, France, Mar. 25-30, 2008. *Acceptance rate: 16.7%*.
54. **Xiang Lian**, Lei Chen, and Jeffrey Xu Yu. Pattern Matching over Cloaked Time Series (poster paper). In Proceedings of the *International Conference on Data Engineering (ICDE'08)*, pages 1462-1464, Cancún, México, Apr. 7-12, 2008. *Acceptance rate: 31%*.

#### Year 2007

55. **Xiang Lian** and Lei Chen. A General Cost Model for Dimensionality Reduction in High Dimensional Spaces. In Proceedings of the *International Conference on Data Engineering (ICDE'07)*, pages 66-75, Istanbul, Turkey, Apr. 16-20, 2007. *Acceptance rate: 18.5%*.
56. **Xiang Lian**, Lei Chen, Jeffrey Xu Yu, Guoren Wang, and Ge Yu. Similarity Match Over High Speed Time-Series Streams. In Proceedings of the *International Conference on Data Engineering (ICDE'07)*, pages 1086-1095, Istanbul, Turkey, Apr. 16-20, 2007. *Acceptance rate: 18.5%*.
57. Qiuxia Chen, Lei Chen, **Xiang Lian**, Yunhao Liu, and Jeffrey Xu Yu. Indexable PLA for Efficient Similarity Search. In Proceedings of the *Very Large Data Bases Conference (VLDB'07)*, pages 435-446, Vienna, Austria, Sept. 23-27, 2007. *Acceptance rate: 16.9%*.
58. **Xiang Lian**, Lei Chen, and Bin Wang. Approximate Similarity Search over Multiple Stream Time Series (short paper). In Proceedings of the *International Conference on Database Systems for Advanced Applications (DASFAA'07)*, pages 962-968, Bangkok, Thailand, Apr. 9-12, 2007. *Acceptance rate: 18.7%*.

#### Year 2006

59. **Xiang Lian** and Lei Chen. Efficient Methods on Predictions for Similarity Search over Stream Time Series. In Proceedings of the *International Conference on Scientific and Statistical Database Management (SSDBM'06)*, pages 241-250, Vienna, Austria, July 3-5, 2006.

#### Year 2004

60. Yufei Tao, Dimitris Papadias, and **Xiang Lian**. Reverse  $k$ NN Search in Arbitrary Dimensionality. In Proceedings of the *Very Large Data Bases Conference (VLDB'04)*, pages 744-755, Toronto, Canada, Aug. 30-Sept. 3, 2004. *Acceptance rate: 16%*.

## BOOKS, BOOK CHAPTERS, AND WORKSHOP PAPERS

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#### Year 2012

61. Lei Chen and **Xiang Lian**. Query Processing over Uncertain Databases (Book; DOI number: *doi:10.2200/S00465ED1V01Y201212DTM033*). In *Synthesis Lectures on Data Management*, Vol. 4, No. 6, pages 1-101, December, 2012.
62. Artem Chebotko, Eugenio De Hoyos, Carlos Gomez, Andrey Kashlev, **Xiang Lian**, and Christine Reilly. UTPB: A Benchmark for Scientific Workflow Provenance Storage and Querying Systems. In the *6th International IEEE Workshop on Scientific Workflows*, Honolulu, Hawaii, USA, June 24-29, 2012.

#### Year 2011

63. Thomas Bernecker, Tobias Emrich, Hans-Peter Kriegel, Andreas Züfle, Lei Chen, **Xiang Lian**, and Nikos Mamoulis. Managing Uncertain Spatio-Temporal Data. In *QeST@GIS*, pages 16-20, Chicago, IL, USA, 2011.

## TECHNICAL REPORT

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### Year 2015

64. Peng Cheng, **Xiang Lian**, Lei Chen, Jinsong Han, and Jizhong Zhao. Task Assignment on Multi-Skill Oriented Spatial Crowdsourcing (Technical Report). In *CoRR abs/1510.03149* [<http://arxiv.org/abs/1510.03149>], 2015.
65. Peng Cheng, **Xiang Lian**, Lei Chen, Cyrus Shahabi. Prediction-Based Task Assignment on Spatial Crowdsourcing (Technical Report). In *CoRR abs/1512.08518* [<http://arxiv.org/abs/1512.08518>], 2015.

### Year 2014

66. Peng Cheng, **Xiang Lian**, Zhao Chen, Lei Chen, Jinsong Han, and Jizhong Zhao. Reliable Diversity-Based Spatial Crowdsourcing by Moving Workers (Technical Report). In *CoRR abs/1412.0223* [<http://arxiv.org/abs/1412.0223>], 2014.

## PROFESSIONAL SERVICES

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### Chair and co-chair for:

*ACM Conference on the Management of Data (SIGMOD)*, Proceedings Co-Chair [2014, 2015]; and  
*International Conference on Web-Age Information Management (WAIM)*, Proceedings Co-Chair [2016].

### Journal reviewer for:

*ACM Transactions on Database Systems (TODS)* [2016];  
*Very Large Data Bases Journal (VLDBJ)* [2010, 2012, 2013, 2014, 2015, 2016];  
*IEEE Transactions on Knowledge and Data Engineering (TKDE)* [2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016];  
*ACM Transactions on the Web (TWEB)* [2009];  
*Information Systems (IS)* [2013];  
*Knowledge and Information Systems (KAIS)* [2012, 2013];  
*Information Sciences (ISCI)* [2013, 2014, 2015];  
*Data and Knowledge Engineering Journal (DKE)* [2012, 2013];  
*World Wide Web Journal (WWWJ)* [2011, 2013, 2016];  
*Journal of Computer Science and Technology (JCST)* [2012, 2013];  
*Distributed and Parallel Databases (DAPD)* [2012, 2013, 2014, 2015];  
*Transactions on Knowledge Discovery from Data (TKDD)* [2013, 2014];  
*Transactions on Systems, Man, and Cybernetics – Part B: Cybernetics (SMCB)* [2012];  
*ACM Transactions on Interactive Intelligent Systems (ACM TiiS)* [2013];  
*International Journal on Advances of Computer Science for Geographic Information Systems (Geoinformatica)* [2015];  
*International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems (IJUFKS)* [2014, 2015, 2016];  
*International Journal of Cooperative Information Systems (IJCIS)* [2015];  
*Frontiers of Computer Science (FCS)* [2011, 2014];  
*Transactions on Fuzzy Systems (TFS)* [2015, 2016];  
*China Communication (CNCOMM) (Big data special issue)* [2014];  
*International Journal of Distributed Sensor Networks* [2015];  
*Neurocomputing* [2015];  
*The Journal of Computers (JCP)* [2013, 2014];  
*The Computer Journal (COMPJ)* [2014];  
*Journal of Computer Science and Technology (JCST)* [2015, 2016];

*SpringerPlus* [2015]; and  
*Journal of Web Engineering (JWE)* [2015].

**Program committee (PC) member and reviewer for:**

*International Conference on Data Engineering (ICDE)* [2012];  
*ACM Conference on Information and Knowledge Management (CIKM)* [2011];  
*ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (GIS)* [2015];  
*International Conference on Web-Age Information Management (WAIM)* [2010, 2013, 2014, 2016];  
*International Asia-Pacific Web Conference (APWeb)* [2013, 2014, 2016];  
*International Conference on Database Systems for Advanced Applications (DASFAA)* [2015];  
*International Joint Conference on Artificial Intelligence (IJCAI)* [2015];  
*IEEE International Conference on Computer and Information Technology (CIT)* [2010, 2011, 2013];  
*IEEE International Conference on Parallel and Distributed Systems (ICPADS)* [2014];  
*Asia-Pacific Services Computing Conference (APSCC)* [2014, 2016];  
*Wireless Telecommunications Symposium (WTS)* [2015];  
*IEEE Frontiers in Education Conference (FIE)* [2015];  
*International Conference on Big Data Computing and Communication (BIGCOM)* [2016];  
*IEEE International Conference on Intelligent Cloud Computing (ICC)* [2016];  
*International Workshop on Semantic Big Data (SBD @ SIGMOD)* [2016]  
*International Workshop on Uncertain Data Computing* [2013];  
*International Workshop on Graph Database (IWGD)* [2010]; and  
*International Workshop on Management and mining Of UNcertain Data (MOUND)* [2009].

**External conference reviewer for:**

*ACM Conference on the Management of Data (SIGMOD)* [2006, 2007, 2008, 2009, 2010, 2011, 2015, 2016];  
*Very Large Data Bases Conference (VLDB)* [2004, 2005, 2006, 2007, 2008, 2010, 2012, 2013, 2015];  
*International Conference on Data Engineering (ICDE)* [2006, 2007, 2008, 2009, 2010, 2011, 2013, 2014, 2015];  
*ACM SIGKDD Conference on Knowledge Discovery and Data Mining (SIGKDD)* [2010];  
*IEEE International Conference on Data Mining (ICDM)* [2009, 2010, 2012];  
*International Conference on Extending Database Technology (EDBT)* [2006, 2013, 2014];  
*International World Wide Web Conferences (WWW)* [2008, 2009];  
*ACM Conference on Information and Knowledge Management (CIKM)* [2005, 2013];  
*IEEE International Conference on Computer Communications (INFOCOM)* [2013];  
*International Conference on Scientific and Statistical Database Management (SSDBM)* [2005, 2007, 2008, 2010];  
*International Conference on Database Systems for Advanced Applications (DASFAA)* [2011, 2014];  
*ACM Multimedia (MM)* [2012];  
*ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (GIS)* [2009, 2010];  
*Symposium on Spatial and Temporal Databases (SSTD)* [2005];  
*International Conference on Database and Expert Systems Applications (DEXA)* [2004, 2005]; and  
*Mobile Data Management (MDM)* [2009].

**External workshop reviewer for:**

*International Workshop on Data Quality in Integration Systems (DQIS'11)* [2011]; and  
*ACM SIGKDD International Workshop on Knowledge Discovery from Uncertain Data (U'09)* [2009].

**Technical program committee member and organizing committee member for:**

*IEEE International Conference on Intelligent Cloud Computing (ICC)* [2016];  
*Wireless Telecommunications Symposium (WTS)* [2015, 2016]; and

The 5<sup>th</sup> Beijing-Hong Kong International Doctoral Forum [2010].

**Research grant proposal reviewer** for:

Initiative of the Chilean National Science and Technology Commission (CONICYT), Chile [2015]; and  
STW / Enabling new technology, *Technology Foundation STW*, Netherlands [2014].

**Evaluator** for:

IEEE Collabratec™, *IEEE Platform Testing*, IEEE [2014].

**Tutorials** for:

- Lei Chen and **Xiang Lian**. Query Processing over Uncertain and Probabilistic Databases. In Proceedings of the *International Conference on Database Systems for Advanced Applications (DASFAA'12)*, pages 326-327, Busan, South Korea, Apr. 15-19, 2012.

**Talks and Presentations** for:

- **Xiang Lian**. Efficient Management Over Probabilistic Graph Databases. Tsinghua University, Beijing, China, July, 2015.
- **Xiang Lian** and Lei Chen. Causality and Responsibility: Probabilistic Queries Revisited in Uncertain Databases. *ACM Conference on Information and Knowledge Management (CIKM'13)*, San Francisco, CA, USA, Oct. 27 - Nov. 1, 2013.
- **Xiang Lian**. Query Processing in Uncertain Databases. Fudan University, Shanghai, China, July, 2013.
- **Xiang Lian**. Efficient Query Answering Over Uncertain Data. Tsinghua University, Beijing, China, June, 2012.
- **Xiang Lian**. Consistent Query Answers in Inconsistent Probabilistic Databases. Beijing University, Beijing, China, June, 2012.
- **Xiang Lian**, Yincheng Lin, and Lei Chen. Cost-Efficient Repair in Inconsistent Probabilistic Databases. *ACM Conference on Information and Knowledge Management (CIKM'11)*, Glasgow, United Kingdom, Oct. 24-28, 2011.
- **Xiang Lian** and Lei Chen. Set Similarity Join on Probabilistic Data. *Very Large Data Bases Conference (VLDB'10)*, Singapore, Sept. 13-17, 2010.
- **Xiang Lian**, Lei Chen, and Shaoxu Song. Consistent Query Answers in Inconsistent Probabilistic Databases. *ACM Conference on the Management of Data (SIGMOD'10)*, Indianapolis, Indiana, USA, Jun. 6-11, 2010.
- **Xiang Lian** and Lei Chen. Efficient Pattern Matching over Uncertain Data Streams (The HKIE Outstanding Paper Award). *Hong Kong Institution of Engineers (HKIE)*, Hong Kong, China, December, 2009.
- **Xiang Lian** and Lei Chen. Monochromatic and Bichromatic Reverse Skyline Search over Uncertain Databases. *ACM Conference on the Management of Data (SIGMOD'08)*, Vancouver, Canada, Jun. 9-12, 2008.
- **Xiang Lian** and Lei Chen. Probabilistic Ranked Queries in Uncertain Databases. *International Conference on Extending Database Technology (EDBT'08)*, Nantes, France, Mar. 25-30, 2008.
- Lei Chen and **Xiang Lian**. Skyline Queries in Metric Spaces. *International Conference on Extending Database Technology (EDBT'08)*, Nantes, France, Mar. 25-30, 2008.
- **Xiang Lian** and Lei Chen. A General Cost Model for Dimensionality Reduction in High Dimensional Spaces. *International Conference on Data Engineering (ICDE'07)*, Istanbul, Turkey, Apr. 16-20, 2007.
- **Xiang Lian**, Lei Chen, Jeffrey Xu Yu, Guoren Wang, and Ge Yu. Similarity Match Over High Speed Time-Series Streams. *International Conference on Data Engineering (ICDE'07)*, Istanbul, Turkey, Apr. 16-20, 2007.

**University/College/Department services** for:

- *Colloquium Committee* (Department), Chair [UTRGV; 2012 ~ 2013]
- *Annual Evaluation Committee* (Department), Chair [UTRGV; 2013 ~ 2014]
- *Faculty Research Council (FRC; University)*, Member [UTRGV; 2014 ~ 2015]
- *Excellence Awards Selection Committee* (College), Member [UTRGV; 2014]
- *Majors Fair* (College), Volunteer [UTRGV; 2012, 2013, 2014]



- *Annual Evaluation Committee* (Annual Evaluation and Nominations of Faculty Excellence Awards; Department and College), Member [UTRGV; 2012 ~ 2013]
- *Undergraduate Curriculum Committee* (Department), Member [UTRGV; 2011, 2012, 2013, 2014, 2015, 2016]
- *Graduate Committee* (Department), Member [UTRGV; 2011, 2012, 2013, 2014, 2015, 2016]
- *Faculty Search Committee* (Department), Member [UTRGV; 2014 ~ 2016]

**Student helper for:**

*IEEE International Conference on Data Mining (ICDM)* [2006, Hong Kong]

**ACM SIGMOD member** [2010]

**IEEE student member** [2007, 2008, 2009, 2010]

**IEEE communications society member** [2010]

## TEACHING EXPERIENCE

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**Instructor, Kent State University**

**2016 ~ present**

- ST: Probabilistic Data Management [graduate] (CS 79995 & CS 69995), Fall, 2016

**Instructor, University of Texas Rio Grande Valley**

**2015 ~ 2016**

- Operating Systems (CSCI/CMPE 4334), Spring, 2016
- Applied Database Systems [graduate] (CSCI 6315), Spring, 2016
- Database Design and Implementation (CSCI 4333), Fall, 2015
- Object Oriented Programming in C# (CSCI/CMPE 3328), Fall, 2015
- Master's Thesis (CSCI 7300) [graduate], Fall, 2015

**Instructor, University of Texas - Pan American**

**2011 ~ 2015**

- Operating Systems (CSCI/CMPE 4334), Spring, 2015
- Topic: Programming in Python (CSCI/CMPE 4341), Spring, 2015
- Object Oriented Programming in C# (CSCI/CMPE 3328), Fall, 2014
- Database Design and Implementation (CSCI 4333), Fall, 2014
- Problems in Computer Science [graduate] (CSCI 6380), Fall, 2014
- Independent Research and Study [graduate] (CSCI 6381), Fall, 2014
- Computer Science I: C++ Programming (CSCI 1380), Spring, 2014
- Operating Systems (CSCI/CMPE 4334), Spring, 2014
- Master's Project (CSCI 6390) [graduate], Spring, 2014
- Object Oriented Programming in C# (CSCI/CMPE 3328), Fall, 2013
- Foundations of Systems [graduate] (CSCI 6307), Fall, 2013
- Computer Science I: C++ Programming (CSCI 1380), Spring, 2013
- Operating Systems (CSCI/CMPE 4334), Spring, 2013
- Independent Research and Study [graduate] (CSCI 6381), Spring, 2013
- Computer Science I: C++ Programming (CSCI 1380), Fall, 2012
- Object Oriented Programming in C# (CSCI 3328), Fall, 2012
- Master's Project (CSCI 6390) [graduate], Fall, 2012
- Computer Science I: C++ Programming (CSCI 1380), Spring, 2012
- Operating Systems (CSCI/CMPE 4334), Spring, 2012
- Master's Thesis (CSCI 7300) [graduate], Spring, 2012
- Computer Science I: C++ Programming (CSCI 1380/1387), Fall, 2011
- Visual Basic (CSCI 3327), Fall, 2011
- Independent Research and Study [graduate] (CSCI 6381), Fall, 2011

**Teaching Assistant, the Hong Kong University of Science and Technology****2003 ~ 2008**

- Database Management Systems (COMP 231), Dr. Lei Chen and Dr. Dik Lun Lee, Spring, 2008
- Design and Analysis of Algorithms (COMP 271), Dr. An-Chow Lai, Spring, 2007
- Data Structures and Algorithms (COMP 171), Dr. Lei Chen, Fall, 2006
- Similarity Search Over Databases (COMP 630J), Dr. Lei Chen, Spring, 2006
- Advanced Database Systems: MSc in Information Technology Course (CSIT 530), Dr. Dimitris Papadias, Spring, 2005
- Database Management Systems (COMP 231), Dr. Dimitris Papadias, Spring, 2005
- Database Architecture and Implementation (COMP 530), Dr. Dimitris Papadias, Fall, 2004
- Data Structures and Algorithms (COMP 171), Dr. Shueng-Han Gary Chan, Spring, 2004
- Exploring Multimedia and Internet Computing (COMP101), Dr. Vincent Yun Shen, Fall, 2003

**AWARDS AND GRANTS**

- **Undergraduate Research Initiative (URI), Xiang Lian (supervisor)** and Ms. Janette Garcia (undergraduate student), "Probabilistic Transitive Nearest Neighbor Queries on Road Networks", *University of Texas Rio Grande Valley*, Edinburg, Texas, USA, **Feb., 2016, \$2,000.**
- **Grant of the Faculty Research Council (FRC), Xiang Lian (PI)**, "Efficient and Accurate Query Processing on Road Networks with Dynamic and Uncertain Traffic Conditions", *University of Texas Rio Grande Valley*, Edinburg, Texas, USA, **Feb., 2015, \$4,969.66.**
- **Departmental Research Travel Grant**, *ACM Conference on Information and Knowledge Management (CIKM'13)*, San Francisco, CA, USA, Oct. 27 - Nov. 1, 2013;
- **Grant of the Faculty Research Council (FRC), Xiang Lian (PI)**, "Search Your University", *University of Texas – Pan American*, Edinburg, Texas, USA, **Feb., 2012, \$5,000.**
- **The HKIE Outstanding Paper Award for Young Engineers and Researchers**, "Efficient Pattern Matching over Uncertain Data Streams", *Hong Kong Institution of Engineers (HKIE)*, Hong Kong, China, **Sept., 2009**
- **Best Paper Award**, "Inverse Ranking Queries over Uncertain Data", *International Conference on Database Systems for Advanced Applications (DASFAA)*, Brisbane, Australia, **Apr., 2009**
- **Research Travel Grant**, *Very Large Data Bases Conference (VLDB'10)*, Singapore, **Sept., 2010**
- **Research Travel Grant**, *ACM Conference on the Management of Data (SIGMOD'10)*, Indianapolis, Indiana, USA, **Mar., 2010**
- **Research Travel Grant**, *ACM Conference on the Management of Data (SIGMOD'08)*, Vancouver, Canada, **Jun., 2008**
- **Research Travel Grant**, *International Conference on Data Engineering (ICDE'07)*, Istanbul, Turkey, **Dec., 2006**
- **Postgraduate Studentships**, *The Hong Kong University of Science and Technology*, Hong Kong, China, **2003 ~ 2009**
- **People Scholarships**, *Nanjing University*, China, **2000 ~ 2002**
- **IBM WSAD Certification**, *Nanjing University*, China, **2002**
- **China Undergraduate Mathematical Contest in Modeling (CUMCM)**, the third prize (Jiangsu Province), *Nanjing University*, China, **2002**
- **China Undergraduate Mathematical Contest in Modeling (CUMCM)**, the first prize (Jiangsu Province), *Nanjing University*, China, **2001**
- **The Competition of CKC Chinese Input System**, the third prize, *Nanjing University*, China, **2000**

**LANGUAGE PROFICIENCY**

- Chinese (Native)
- English (Fluent)
- Cantonese (Basic)

## **REFERENCES**

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*References Available Upon Request*

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