

# Xintao Wu

Curriculum Vitae (as of August 2011)

Associate Professor and Director of Data Privacy Lab  
Department of Software and Information Systems  
College of Computing and Informatics  
University of North Carolina at Charlotte  
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## RESEARCH INTERESTS

**Data Mining and Warehousing, Data Privacy and Security, Social Network Analysis**

## PROFESSIONAL EXPERIENCE

- *Associate Professor*, Jan 2008 – present, Department of Software and Information Systems, College of Computing and Informatics, University of North Carolina at Charlotte.
- *Associate Professor*, July 2007 – Dec 2007, Department of Computer Science, College of Computing and Informatics, University of North Carolina at Charlotte.
- *Assistant Professor*, August 2001 – June 2007, Department of Computer Science, College of Computing and Informatics, University of North Carolina at Charlotte.
- *Graduate Research Assistant*, August 1998 – July 2001, Department of Information & Software Systems, George Mason University.

## EDUCATION

- **Ph.D. in Information Technology**, George Mason University. August 2001
- **M.E. in Computer Engineering**, Chinese Academy of Space Technology. June 1997
- **B.S. in Information Science**, University of Science & Technology of China, Hefei, China. July 1994

## AWARDS

1. PAKDD'10 Best Student Paper Runner-up Award, 2010
2. Outstanding Faculty Research Award, College of Computing and Informatics, UNC Charlotte, 2009.
3. NSF CAREER Award, 2006.
4. Excellence in Undergraduate Teaching Award, College of Information Technology, UNC Charlotte, 2004-2005
5. Junior Faculty Research Grant Award, UNC Charlotte, 2002, 2004
6. Doctoral Completion Fellowship, George Mason University, Summer 2001.
7. Doctoral Fellowship. School of Information Technology and Engineering, George Mason University, 2000 - 2001.
8. Elite Graduate Student Scholarship, Chinese Academy of Space Technology, 1995.
9. Procter & Gamble Prize, University of Science & Technology of China, 1993.

## GRANTS

### EXTERNAL RESEARCH GRANTS

1. *EAGER:FODAVA: Spectral Analysis for Fraud Detection in Large-Scale Networks*. PI: Xintao Wu, CoPI: Aidong Lu. CCF-1047621, Aug 1, 2010 to July 31, 2011, total \$100,000, NSF.
2. *SHF:Small:Collaborative Research: Constraint-Based Generation of Database States for Testing Database Applications*. PI: Xintao Wu. CCF-0939910, Sept 1, 2009 to August 31, 2012, total \$203,729, NSF. Collaborated with Tao Xie from NC State University.
3. *CT-ER: Privacy and Spectrum Analysis in Social Network Randomization*. PI: Xintao Wu. CNS-0831204, Oct 1, 2008 to Sept 30, 2011, total \$186,147, NSF.
4. *CAREER: Towards Privacy and Confidentiality Preserving Databases*. PI: Xintao Wu. IIS-0546027, Jan 1, 2006 to Dec 31, 2011, estimated total \$439,700, NSF.
5. *Privacy Preserving Database Application Testing*. PI: Xintao Wu, CoPIs: Yongge Wang, Yuliang Zheng. CNS-0310974, Sept 15, 2003 to August 31, 2006, \$203,800, NSF.

### EXTERNAL SCHOLARSHIP GRANTS

6. *Collaborative Project: Carolina Cyber Defense Scholarship*. PI: Bei-Tseng Chu, CoPIs: Gail-Joon Ahn, Xintao Wu, Brent Kang, Thomas Holt. DUE-0830624, Sept 1, 2008 to August 31, 2012, \$1,194,140, NSF.

## INTERNAL GRANTS

7. *Junior Faculty Research Grant: Towards an Efficient and Effective Gene Interaction Analysis System for Microarray Data* (PI: Xintao Wu.) UNC Charlotte, 2004, \$4,580.
8. *CID Grant: Advanced Data Mining and Knowledge Discovery Curriculum: A Proposal*, (PI: Xintao Wu.) UNC Charlotte, 2004, \$3,850.
9. *Junior Faculty Research Grant: Using Fractals to Compress Real Data Sets* (PI: Xintao Wu.) UNC Charlotte, 2002, \$6,000.

## PUBLICATIONS

### JOURNAL PUBLICATIONS

1. Leting Wu, Xiaowei Ying, Xintao Wu, Aidong Lu and Zhi-Hua Zhou. Examining Spectral Space of Complex Networks with Positive and Negative Links. *International Journal of Social Network Mining*, 2011 (under review).
2. Ling Guo, Xiaowei Ying and Xintao Wu. Limiting Attribute Disclosure in Randomization based Microdata Release. *Journal of Computing Science and Engineering*, 2011 (invited as one of selected PADM10 papers, and accepted).
3. Xiaowei Ying, Leting Wu, and Xintao Wu. A Spectrum-based Framework for Quantifying Randomness of Social Networks. *IEEE Transactions on Knowledge and Data Engineering*, 2010 (To appear).
4. Xiaowei Ying and Xintao Wu. On Link Privacy in Randomizing Social Networks. *Journal of Knowledge and Information System*, 28(3):645-663, 2011.
5. Ling Guo and Xintao Wu. Privacy Preserving Categorical Data Analysis with Unknown Distortion Parameters. *Transaction on Data Privacy* 2(3):185-205, 2009.
6. Songtao Guo, Xintao Wu, and Yingjiu Li. Determining Error Bounds for Spectral Filtering Based Reconstruction Methods in Privacy Preserving Data Mining. *Journal of Knowledge and Information System*, 17(2):217-240, 2008.
7. Ling Qiu, Yingjiu Li, and Xintao Wu. Protecting Business Intelligence and Customer Privacy while Outsourcing Data Mining Tasks. *Journal of Knowledge and Information System*, 17(1):99-120, 2008.
8. Yingjiu Li, Ling Qiu, and Xintao Wu. Privacy Preserving Association Rule Mining with Bloom Filters. *Journal of Intelligent Information System*, 29(3):253-278, 2007.
9. Xintao Wu, Yongge Wang, Songtao Guo and Yuliang Zheng. Privacy Preserving Database Generation for Database Application Testing. *Fundamenta Informaticae*, 78(4):595-612, 2007.
10. Xintao Wu, Yong Ye. Exploring Gene Causal Interactions Using an Enhanced Constraint-based Method. *Pattern Recognition*, 39:2439-2449, 2006.
11. Xintao Wu. Incorporating large Unlabeled Data to Enhance EM Classification. *Journal of Intelligent Information System*, 26(3): 211-226, May 2006.

12. Xintao Wu, Yong Ye, Liying Zhang. Graphical Modeling Based Gene Interaction Analysis for Microarray Data. *SIGKDD Explorations* 5(2):91-100, 2003.
13. Daniel Barbará, Xintao Wu. Approximate Median Polish Algorithm for Large Multidimensional Data Sets. *Journal of Knowledge and Information System* 5(4):416-438, Springer-Verlag, Oct 2003.
14. Xintao Wu, Daniel Barbará. Learning Missing Values from Summary Constraints, *SIGKDD Explorations*, 4(1):21-30, ACM, June 2002.
15. Daniel Barbará, Xintao Wu. Loglinear-Based Quasi Cubes. In *Journal of Information and Intelligent System*,16(3):255-276, Kluwer, August 2001.
16. Daniel Barbará, Xintao Wu. The Role of Approximations in Maintaining and Using Aggregate Views. *IEEE Data Engineering Bulletin* 22(4):15-21, 1999.

## REFEREED CONFERENCE/WORKSHOP PUBLICATIONS

17. Kai Pan, Xintao Wu and Tao Xie. Generating Program Inputs for Database Application Testing. Submitted to *the 26th IEEE/ACM International Conference on Automated Software Engineering (ASE)*, Lawrence, Kansas , Nov 2011 (full paper, acceptance ratio  $37/252 = 14.6\%$ ).
18. Leting Wu, Xiaowei Ying, Xintao Wu and Zhi-Hua Zhou. Line Orthogonality in Adjacency Eigenspace with Application to Community Partition. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI)*, Barcelona, Spain, pp.2349-2354, July 16-22, 2011 (oral presentation, acceptance ration  $227/1325 = 17.1\%$ ).
19. Kai Pan, Xintao Wu and Tao Xie. Database State Generation via Dynamic Symbolic Execution for Coverage Criteria. In *Proceedings of the 4th International Workshop on Testing Database Systems (DBTest)*, Athens, Greece, June 13, 2011.
20. Leting Wu, Xiaowei Ying, Xintao Wu, Aidong Lu and Zhi-Hua Zhou. Spectral Analysis of k-balanced Signed Graphs. In *Proceedings of the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Shenzhen, China, pp.1-12, May 24-27, 2011 (long presentation, acceptance ration  $32/331 = 9.7\%$ ).
21. Xiaowei Ying, Xintao Wu, and Daniel Barbara. Spectrum Based Fraud Detection in Social Networks. In *Proceedings of the 27th IEEE International Conference on Data Engineering (ICDE)*, Hannover, Germany, pp.912-923, April 2011 (acceptance ration  $98/494 = 19.8\%$ ).
22. Ling Guo, Xiaowei Ying, and Xintao Wu. On Attribute Disclosure in Randomization based Privacy Preserving Data Publishing. In *Proceedings of the IEEE International Workshop on Privacy Aspects of Data Mining (PADM)*, Sydney, Australia, pp.?-?, Dec 2010.
23. Xiaowei Ying, Xintao Wu, and Daniel Barbara. Spectrum Based Fraud Detection in Social Networks. In *Proceedings of the 17th ACM International Conference on Computer and Communications Security (CCS)*, Chicago, pp.747-749, Oct 2010.
24. Lane Harrison, Xianlin Hu, Xiaowei Ying, Aidong Lu, Weichao Wang and Xintao Wu. Interactive Detection of Network Anomalies via Coordinated Multiple Views. In *Proceedings of the 7th International Symposium on Visualization for Cyber Security (VizSec)*, Ottawa, Canada, Sept 2010.

25. Lunter Loftis, Andrew Waters, Xintao Wu, and Bei-Tseng Chu. Discovering Information Security Discussions among Debian Developers. In *Proceedings of the 19th USENIX Security Symposium*, Washington DC, Aug 2010 (poster paper).
26. Leting Wu, Xiaowei Ying, and Xintao Wu. Reconstruction from Randomized Graph via Low Rank Approximation. In *Proceedings of the 10th SIAM Conference on Data Mining (SDM)*, Columbus, Ohio, pp.60-71, April 2010 (acceptance ration  $82/351 = 23.4\%$ ).
27. Xiaowei Ying, Kai Pan, Xintao Wu, and Ling Guo. Comparisons of Randomization and K-degree Anonymization Schemes for Privacy Preserving Social Network Publishing. In *Proceedings of the 3rd SIGKDD Workshop on Social Network Mining and Analysis (SNA-KDD)*, Paris, France, pp.?-?, June 2009.
28. Xiaowei Ying, Xintao Wu. Graph Generation with Prescribed Feature Constraints. In *Proceedings of the 9th SIAM Conference on Data Mining (SDM09)*, Sparks, Nevada, pp.966-977, April 2009(acceptance ratio:  $55/351 = 15.7\%$ ).
29. Xiaowei Ying, Xintao Wu. On Randomness Measures for Social Networks. In *Proceedings of the 9th SIAM Conference on Data Mining (SDM09)*, Sparks, Nevada, pp.709-720, April 2009(acceptance ratio:  $55+50/351 = 29.9\%$ ).
30. Xiaowei Ying, Xintao Wu. On Link Privacy in Randomizing Social Networks. In *Proceedings of the 13th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD09)*, Bangkok, Thailand, pp. 28-39, April 2009(acceptance ratio:  $39/338 = 11.5\%$  **Best Student Paper Runner-up Award**).
31. Xiaowei Ying, Xintao Wu. Randomizing Social Networks: a Spectrum Preserving Approach. In *Proceedings of the 8th SIAM Conference on Data Mining (SDM08)*, Atlanta, Georgia, pp. 739-750, April 2008(acceptance ratio:  $40/282 = 14.2\%$ ).
32. Ling Guo, Songtao Guo, Xintao Wu. On Addressing Accuracy Concerns in Privacy Preserving Association Rule Mining. In *Proceedings of the 12th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD08)*, Osaka, Japan, pp. 124-135, May 2008(acceptance ratio:  $37/312 = 12\%$ ).
33. Ling Guo, Songtao Guo, Xintao Wu. Privacy Preserving Market Basket Data Analysis. In *Proceedings of the 11th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD07)*, Warsaw, Poland, pp.103-114, Sept 2007(acceptance ratio:  $54/592 = 9.1\%$ ).
34. Songtao Guo, Xintao Wu. Deriving Private Information from Arbitrarily Projected Data. In *Proceedings of the 11th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD07)*, Nanjing, China, pp.84-95, May 2007(acceptance ratio:  $34/730 = 4.6\%$ ).
35. Ling Qiu, Yingjiu Li, Xintao Wu. An Approach to Outsourcing Data Mining Tasks while Protecting Business Intelligence and Customer Privacy. In *Proceedings of the 2nd IEEE International Workshop on Privacy Aspects of Data Mining (PADM06)*, Hong Kong, China, pp.551-558, Dec 2006(acceptance ratio:  $11/29 = 37.9\%$ ).
36. Songtao Guo, Xintao Wu, Yingjiu Li. On the Lower Bound of Reconstruction Error for Spectral Filtering Based Privacy Preserving Data Mining. In *Proceedings of the 10th European Conference on Principles and Practice of Knowledge Discovery in Databases(PKDD06)*, Berlin, Germany, pp.520-527, Sept 2006(acceptance ratio:  $122/685 = 17.8\%$ ).

37. Haibing Lu, Yingjiu Li, Xintao Wu. Disclosure Risk for Dynamic Two-Dimensional Contingency Tables. In *Proceedings of the 2nd International Conference on Information Systems Security(ICISS06)*, Kolkata, India, pp.349-352,Dec 2006 (acceptance ratio:  $24/79 = 30.4\%$ ).
38. Haibing Lu, Yingjiu Li, Xintao Wu. Disclosure Analysis for Two-Way Contingency Tables. In *Proceedings of the 2006 International Conference on Privacy in Statistical Databases(PSD06)*, Rome, Italy, pp.57-67, Dec 2006.
39. Songtao Guo, Xintao Wu, Yingjiu Li. Deriving Private Information from Perturbed Data Using IQR based Approach. In *Proceedings of the 2nd International Workshop on Privacy Data Management*, In conjunction with the 22nd ICDE conference, Atlanta, pp.92-99, April 2006 (acceptance ratio:  $12/26 = 46.1\%$ ).
40. Songtao Guo, Xintao Wu. On the Use of Spectral Filtering for Privacy Preserving Data Mining. In *Proceedings of the 21st ACM Symposium on Applied Computing (SAC)*, Dijon, France, pp.622-626, April 2006 (Data Mining Track, acceptance ratio:  $20/59 = 33.9\%$ ).
41. Xintao Wu, Sontao Guo, Yingjiu Li. Towards Value Disclosure Analysis in Modeling General Databases. In *Proceedings of the 21st ACM Symposium on Applied Computing (SAC)*, Dijon, France, pp. 617-621, April 2006 (Data Mining Track, acceptance ratio:  $20/59 = 33.9\%$ ).
42. Yongge Wang, Xintao Wu. Approximate Inverse Frequent Itemset Mining: Privacy, Complexity, and Approximation. In *Proceedings of the 5th IEEE International Conference on Data Mining (ICDM)*, Houston, pp.482-489, Nov 2005 (acceptance ratio:  $69/630 = 10.9\%$ ).
43. Xintao Wu, Chintan Sanghvi, Yongge Wang, Yuliang Zheng. Privacy Aware Data Generation for Testing Database Applications. In *Proceedings of the 9th IEEE International Database Engineering and Application Symposium (IDEAS)*, Montreal, pp.317-326, July 2005 (acceptance ratio:  $<25\%$ ).
44. Yong Ye, Xintao Wu. Efficient Causal Interaction Learning with Applications in Microarray. In *Proceedings of the 15th International Symposium on Methodologies for Intelligent Systems (ISMIS)*, Saratoga Springs, pp.622-630, May 2005.
45. Xintao Wu, Yongge Wang, Yuliang Zheng. Statistical Database Modeling for Privacy Preserving Database Generation. In *Proceedings of the 15th International Symposium on Methodologies for Intelligent Systems (ISMIS)*, Saratoga Springs, pp.382-390, May 2005.
46. Xintao Wu, Ying Wu, Yongge Wang, Yuliang Zheng. Privacy Aware Market Basket Data Set Generation: A Feasible Approach for Inverse Frequent Set Mining. In *Proceedings of the 5th SIAM International Conference on Data Mining (SDM)*, Newport Beach, pp. 103-114, April 2005 (Acceptance ratio:  $40/218 = 18.3\%$ ).
47. Yongge Wang, Xintao Wu, Yuliang Zheng. Privacy Preserving Data Generation for Database Application Performance Testing. In *Proceedings of the 1st International Conference on Trust and Privacy in Digital Business (TrustBus)*, Zaragoza, Spain, Sept 2004(Acceptance ratio:  $29/100 = 29\%$ ).
48. Yong Ye, Xintao Wu, Kalapthi Subramanian, Liying Zhang. GenExplore: Interactive Exploration of Gene Interactions from Microarray Data. In *Proceedings of the 20th IEEE International Conference on Data Engineering (ICDE)*, March 2004 (Demo paper, acceptance ratio:  $16/28 = 57.1\%$ ).

49. Xintao Wu, Yongge Wang, Yuliang Zheng. Privacy Preserving Database Application Testing. In *Proceedings of Workshop on Privacy in the Electronic Society (WPES)*, In conjunction with 10th ACM CCS, Washington DC, pp. 118-128, Oct 2003. ( Acceptance ratio:  $16/50 = 32.0\%$ )
50. Xintao Wu, Daniel Barbará, Yong Ye. Screening and Interpreting Multi-item Associations Using Loglinear Modeling. In *Proceedings of the 9th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, Washington DC, August 2003, pp. 276-285. (Acceptance ratio:  $34/258 = 13.1\%$ )
51. Xintao Wu, Yong Ye, Kalpathi Subramanain, Liying Zhang. Interactive Gene Interaction Analysis Using Graphical Gaussian Model. *The 3rd ACM SIGKDD Workshop on Data Mining in Bioinformatics (BIOKDD03)*, Washington DC, August 2003, pp. 63-69. (Acceptance ratio:  $9/24 = 37.5\%$ )
52. Xintao Wu, Daniel Barbará, . Using Fractals to Compress Real Data Sets: Is It Feasible? *The 2nd ACM SIGKDD Workshop on Fractals, Power Laws and Other Next Generation Data Mining Tools*, Washington DC, August 2003, pp. 6-11.
53. Xintao Wu, Daniel Barbará, Liying Zhang, Yong Ye. Gene Interaction Analysis Using All k-way Interaction Loglinear Model: A Case Study on Yeast Data. *ICML Workshop on Machine Learning In Bioinformatics*, Washington DC, August 2003, pp. 38-45.
54. Xintao Wu, Daniel Barbará. Compressing High Dimensional Datasets by Fractals. In *Proceedings of IEEE Data Compression Conference*, Snowbird, Utah, March 2003, pp. 452. (Accepted as a poster paper)
55. Xintao Wu, Daniel Barbará. Modeling and Imputation of Large Incomplete Multidimensional Datasets. In *Proceedings of the Fourth International Conference on Data Warehouse and Knowledge Discovery (DaWaK)*, Aix-en-Provence, France, Sept 2002, pp.286-295. (Acceptance ratio:  $32/100+ < 32\%$ )
56. Xintao Wu, Jianping Fan, Kalpathi Subramanian. B-EM: A Classifier Incorporating Bootstrap with EM Approach for Data Mining. In *Proceedings of the Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, Edmonton, Canada, July 2002, pp.670-675. (Acceptance ratio:  $88/308 = 28.5\%$ )
57. Daniel Barbará, Xintao Wu. Finding Dense Clusters in Hyperspace: An Approach Based on Row Shuffling. In *Proceedings of the Second International Conference on Web-Age Information Management (WAIM)*, Xian, China, June 2001, pp.305-316.
58. Daniel Barbará, Xintao Wu. Supporting Online Queries in OLAP. In *Proceedings of the Second International Conference on Data Warehouse and Knowledge Discovery (DaWaK)*, London, England, September 2000, pp.234-243.
59. Daniel Barbará, Xintao Wu. Using Loglinear Models to Compress Datacubes. In *Proceedings of the First International Conference on Web-Age Information Management (WAIM)*, Shanghai, China, June 2000, pp.311-322.
60. Daniel Barbará, Xintao Wu. Using Approximations to Scale Exploratory Data Analysis in Datacubes. In *Proceedings of the Fifth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, San Diego, California, August 1999, pp.382-386. (Acceptance ratio:  $52/280 = 18.5\%$ )

## Book Chapter

61. Xintao Wu, Xiaowei Ying, Kun Liu, and Lei Chen. A Survey of Privacy-Preservation of Graphs and Social Networks. *Managing and Mining Graph Data*, Editors, Charu C. Aggarwal and Haixun Wang, Springer, 2010 (invited book chapter).
62. Xintao Wu, Xiaowei Ying, and Leting Wu. Analyzing Socio-technical Networks: a Spectrum Perspective. *Socio-technical Networks: Science and Engineering Design*. Editors Fei Hu, Ali Mostashari and Jiang Xie. Taylor & Francis LLC, CRC Press, 2010. (Invited book chapter).
63. Xiaowei Ying, Xintao Wu, Kai Pan, and Ling Guo. On the Quantification of Identity and Link Disclosures in Randomizing Social Networks. *Advances in Information & Intelligent Systems*. Editors Z.W. Ras and W. Ribarsky, Studies in Computational Intelligence, Vol 251, Springer, 2009. (Invited book chapter).
64. Songtao Guo, Xintao Wu, Yuliang Zheng. On the Privacy Preserving Properties of Projection-Based Data Perturbation Techniques. *Computational Intelligence and its Applications*, June 2007 (Invited book chapter).

## Tutorial

65. Xintao Wu and Xiaowei Ying. A Tutorial of Privacy-Preservation of Graphs and Social Networks, The 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKD-D11), Shenzhen, China, May 2011.
66. Xintao Wu. Randomization Based Privacy Preserving Data Mining. PKDD/ECML 2006, Berlin, Sept 2006.
67. Xintao Wu. Deriving Private Information from Perturbed Data. The 7th International Conference on Web-Age Information Management (WAIM06), Hong Kong, June 2006.

## DISSERTATION AND THESIS

68. Xintao Wu, “Approximate Algorithms for Data Warehousing and Data Mining” PhD Dissertation, George Mason University, ISBN 0-493-23023-8, August 2001.
69. Xintao Wu, “The Design of Test & Emulation for AOCS Applied Software (AOCS: Attitude and Orbit Control System)” Master Thesis, Chinese Academy of Space Technology, June 1997.

## THESIS ADVISING

- Ph.D. Graduate:
  - Xiaowei Ying, Privacy and Spectral Analysis of Social Network Randomization, Ph.D. Dissertation, May 2011.
  - Ling Guo, Randomization Based Privacy Preserving Categorical Data Analysis, Ph.D. Dissertation, Dec 2010.

- Songtao Guo (co-advised with Dr. Yuliang Zheng), Analysis of and Techniques for Privacy Preserving Data Mining, Ph.D. Dissertation, Dec 2007.
- Yong Ye, Exploring Gene Interactions in DNA Microarray Data, Ph.D. Dissertation, Dec 2007.
- Active PhD Advisees: Kai Pan, Leting Wu, and Yue Wang.
- MS Graduate:
  - Chintan Sanghvi, Privacy Preserving Database Application Testing. Master Thesis, Dec 2005.
  - Amol Kedar, Developing a Database Generator for Database Application Performance Testing, Master Thesis, Dec 2004.
  - Akash Gandhi, Imputing Missing Values in Database Using Iterative Proportional Fitting, Master Thesis, May 2004.
  - Siddharth Sharma, Develop an Approximate and Efficient Duplicate Elimination Algorithm for Data Warehousing. Master thesis, Dec 2003.
  - Piruz Kasad, Approximate Nearest Neighbor Search In Image Databases. Master thesis, August 2003
- Supervised Senior Projects:
  - Joshua Palmer, Privacy Preserving Database Application Testing, Dec 2005.
  - Jumana Al-khatlib, Privacy Preserving Database Application Testing, Dec 2004
  - James Callahan, Yaser Goutah, Bryan Klimasewski, external project, May 2004
  - Daniil Blinov, Statistical Modeling and Imputation of Large Incomplete Databases. Summer 2003
  - Melissia Perkins, Fall 2002
  - Qin Lang, Howie Nguyen, Trinh Nguyen, Spring 2002

## TEACHING

- *ITIS5160 Applied Databases*, Fall 11.
- *ITIS5160 Applied Databases*, Spring 11.
- *ITIS6260/8260 Data Privacy*, Fall 10.
- *ITSC8110 Introduction to IT Research*, Fall 09. Co-offered with Michael Youngblood.
- *ITIS5160 Applied Databases*, Fall 08, Spring 09, Fall 09, Fall 10.
- *ITIS6010 Privacy Preserving Data Mining*, Fall 08.
- *ITCS6163/8163 Data Warehousing*, Spring 08, Spring 06, Spring 05, Spring 03, Fall 01.
- *ITCS6265/8265 Advanced Topics in Knowledge Discovery and Data Mining*, Fall 07, Spring 07.

- *ITCS6160/8160 Database System Design, Management & Implementation*, Fall 07, Spring 07, Fall 04, Fall 03, Fall 02, Spring 02.
- *ITCS3160 Database Design and Implementation*, Spring 06, Fall 05, Spring 05, Spring 04, Fall 03, Spring 03, Fall 02 .
- *ITCS2214 Data Structures*, Fall 04.

## DEPARTMENT/University SERVICES

- Member of Faculty Council, 2011-.
- Member of Department Graduate Committee, 2011-.
- Member of Department Faculty Searching Committee, 2011-.
- Member of Ad-Hoc College P&T Revision Committee, 2011.
- Member of Department Review Committee, 2010-2011.
- Member of Department Faculty Searching Committee, 2010-2011.
- Member of Department Review Committee, 2009-2010.
- Member of Department Faculty Searching Committee, 2009-2010.
- Chair of College Graduate Committee, 2007-2009.
- Member of College Dean's Searching Committee, 2008-2009.
- Member of Department Review Committee, 2008-2009.
- Member of Department Searching Committee, 2008-2009.
- Member of Graduate Council, 2007-2009.
- Member of Department Faculty Searching Committee, 2005-2006.
- Member of Department Ph.D. Admission Committee, 2004-2005.
- Member of University Junior Faculty Research Grant Review Committee, 2004-2005.
- Member of Department Searching Committee, 2003-2004.
- COIT Task Force on Computer Security & Privacy, 2003-2004.
- Member of College Graduate Committee, 2002-2003.
- Member of College Undergraduate Committee, 2001-2002.

## PROFESSIONAL ACTIVITIES

- Member of the ACM (since 2000), IEEE (since 2005), SIAM (since 2008).
- Editorial Board of Journal of Intelligent Information Systems, Springer (since 2008)
- Editorial Board of Transaction on Data Privacy, Spanish Higher Research Council (since 2008)
- Editorial Board of International Journal of Social Network Mining, InderScience Publishers (since 2010)
- NSF CISE Panelist, 2003,2006,2009(twice)
- NSF OISE External Reviewer, 2011
- Grant proposal review for NASA Intelligent Systems, 2004.
- Grant proposal review for NASA Technology Office of Earth Science, 2004.
- Program Committee Co-Chair of the 2nd International Symposium on Data, Privacy and E-Commerce, Buffalo/Niagara Fall, June 20-22, 2010.
- Steering Committee member of IEEE International Workshop on Privacy Aspects of Data Mining (PADM).
- Panelist of the 1st PAKDD Doctoral Symposium on Data Mining, in conjunction with PAKDD 2011.
- Program committee member for the following conferences:
  - the 16th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Kuala Lumpur, Malaysia, May 29-June 1, 2012.
  - the 7th International Conference on Advanced Data Mining and Applications (ADMA), Beijing, China, Dec 17-19, 2011.
  - the 12th International Conference on Web-Age Information Management (WAIM), Wuhan, China, Sept 14-16, 2011.
  - the 11th SIAM International Conference on Data Mining (SDM), Mesa, Arizona, April 28-30, 2011.
  - the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Shenzhen, China, May 24-27, 2011.
  - the 4th International Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP), College Park, MD, March 29-April 1, 2011.
  - the 25th International Conference on Advanced Information Networking and Applications (AINA), Biopolis, Singapore, March 22-25, 2011.
  - the 4th Workshop on Privacy in Information Society (PAIS), Uppsala, Sweden, March 2011.
  - the 10th IEEE International Conference on Data Mining (ICDM), Sydney, Australia, Dec 13-17, 2010

- the 11th International Conference on Web-Age Information Management (WAIM), Jizhaigou, China, July 15-17, 2010
- the 20th International Conference on Pattern Recognition (ICPR), Istanbul, Turkey, August 23-26, 2010
- the 10th SIAM International Conference on Data Mining (SDM), Columbus, Ohio, April 29- May 1, 2010.
- the 14th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Hyderabad, India, June 21-24, 2010.
- the 3rd International Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP), Bethesda, MD, March 29-April 1, 2010.
- the 24th International Conference on Advanced Information Networking and Applications (AINA), Perth, Australia, April 20-23, 2010.
- the 3rd Workshop on Privacy in Information Society (PAIS), Lausanne, Switzerland, March 2010.
- the 9th IEEE International Conference on Data Mining (ICDM), Miami, Florida, Dec 6-9, 2009.
- the 9th SIAM International Conference on Data Mining (SDM), Sparks, Nevada, April 30- May 2, 2009.
- the 13th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Bangkok, Thailand, April 27-30, 2009.
- the IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Washington D.C., Nov 1-4, 2009.
- the 18th International Symposium on Methodologies for Intelligent Systems (ISMIS), Prague, Czech, Sept 14-17, 2009.
- the International Workshop on Privacy Preserving Data Analysis (PPDA), Brisbane, Australia, April 20, 2009.
- the Joint International Conference on Asia-Pacific Web Conference (APWeb) and Web-Age Information Management (WAIM), Suzhou, China, April 5-7, 2009.
- the 2nd International Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP), Phoenix, March 31-April 1, 2009.
- the 23rd IEEE International Conference on Advanced Information Networking and Applications (AINA), Bradford, UK, May 2009.
- the 8th IEEE International Conference on Data Mining (ICDM), Pisa, Italy, Dec 15-19, 2008.
- the IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Philadelphia, PA, Nov 7-9, 2008.
- the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD), Antwerp, Belgium, Sept 2008.
- the 14th International Conference on Knowledge Discovery and Data Mining (KDD), Las Vegas, August, 2008.
- the 1st International Workshop on Practical Privacy Preserving Data Mining (P3DM08), Atlanta, April 2008.

- the 1st Workshop on Privacy in Information Society (PAIS), Nantes, France, March 2008.
- the 12th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Osaka, Japan, May 2008.
- the 22nd IEEE Advanced Information Networking and Applications (AINA), Okinawa, Japan, May 2008.
- the 7th IEEE International Conference on Data Mining (ICDM), Omaha, NE, Oct 2007.
- the IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Silicon Valley, Nov 2007.
- the IEEE Workshop on Mining and Management of Biological Data (MMBD), Omaha, NE, Oct 2007.
- the 13th ACM International Conference on Knowledge Discovery and Data Mining (KDD), San Jose, August 2007.
- the KDD07 Workshop on Mining Multiple Information Sources (MMIS), San Jose, August, 2007.
- the Workshop on Integrating AI and Data Mining (AIDM), Gold Coast, Queensland, Australia, Dec 2007.
- the IADIS-European 1st International Conference on Data Mining (ECDM), Lisbon, Portugal, July 2007.
- the 3rd International Conference on Fuzzy Systems and Knowledge Discovery (FSKD), 2007.
- the 11th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Nanjing, China, May 2007.
- the International Workshop on High Performance Data Mining and Applications (HPDMA), Nanjing, China, May 2007.
- the 1st International Symposium on Data, Privacy, E-Commerce(ISDPE) , Chengdu, China, August, 2007.
- the Workshop on Integrating AI and Data Mining (AIDM), Hobart, Australia, Dec 2006.
- the 6th IEEE International Conference on Data Mining (ICDM), Hong Kong, Dec 2006.
- the 18th IEEE International Conference on Tools with Artificial Intelligence(ICTAI) , Washington D.C., Nov 2006.
- the 5th Workshop on Privacy in the Electronic Society(WPES), Alexandria, VA, Oct 2006
- the 16th International Symposium on Methodologies for Intelligent Systems(ISMIS), Bari, Italy, Sept 2006.
- the 8th International Conference on Electronic Commerce (Privacy, Security and Trust track), Fredericton, Canada, August 2006
- IEEE International Conference on Granular Computing (IEEE GrC), Atlanta, May 2006.
- the 10th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Singapore, April 2006.
- the 1st Southeast Workshop on Data and Information Management, Raleigh, NC, March 2006.

- the 5th IEEE International Conference on Data Mining, Houston, Nov 2005.
  - the 15th International Symposium on Methodologies for Intelligent Systems (ISMIS), Saratoga Springs, New York, May 2005
  - the 4th SIAM Data Mining Conference (SDM), Kissimmee, Florida, April 2004.
  - the 3rd SIAM Data Mining Conference (SDM), San Francisco, May 2003.
- Referee for the following journals/publishers:
    - *book review for John Wiley & Sons*
    - *book review for Addison & Wesley*
    - *Journal of Intelligent Information System*
    - *Journal of Knowledge and Information System*
    - *Journal of Discrete Applied Mathematics*
    - *SIGKDD Explorations*
    - *VLDB Journal*
    - *IEEE Transaction on Knowledge and Data Engineering*
    - *Data Mining and Knowledge Discovery*
    - *Neurocomputing*
    - *IEEE/ACM Transactions on Computational Biology and Bioinformatics*
    - *Journal of Computer Science and Technology*
    - *Journal of Computing Science and Engineering*
  - Referee for the following conferences:
    - The IEEE Symposium on Information Visualization(InfoVis06), 2006.
    - The ACM Conference on Computer and Communications Security (CCS06), 2006.
    - The 18th IFIP WG11.3 Working Conference on Data and Application Security, 2004.
    - The 17th IFIP WG11.3 Working Conference on Data and Application Security, 2003.
    - The 26th International Conference on Very Large Databases, 2000.

## REFERENCES

References will be provided upon request.