

CURRICULUM VITAE

ZHIYUAN CHEN

EDUCATION

Ph.D.	2002	Cornell University, Computer Science
M. S.	1997	Fudan University, China, Computer Science
B.S.	1995	Fudan University, China, Computer Science

Experience in Higher Education

2010 –	UMBC, associate professor, information systems
2004 – 2010	UMBC, assistant professor, information systems

Experience in Other than Higher Education

2002 – 2004	Microsoft research, Redmond, WA, Postdoctoral Researcher
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Honors Received

2013	Best paper award, Knowledge Science, Engineering and Management - 6th International Conference, KSEM 2013, Dalian, China
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Research Support and / or Fellowships

2018-2021	\$329,563 (UMBC Portion: \$229,345), “Secure and flexible Information Sharing in Coalition Environments”, Office of Naval Research, PI
2019-2022	\$447,750, “Graduate Assistance in Areas of National Need (GAANN) Program”, US Department of Education, Co-PI
2018-2019	\$99,917, “Improving Federated Search and Semantic Reasoning for Rya”, US Naval Academy, subcontract, PI
2016-2019	\$1,000,000, “Accelerated Cognitive Cybersecurity Laboratory”, IBM, gift, co-PI of one of the two projects supported by the gift
2016-2018	\$147,772, “Efficient and scalable RDF store with support for federated search and reasoning”, US Naval Academy, subcontract, PI
2016	\$43,000, “Anonymization of Network Trace Data through Differential Privacy”, FFRDC-NIST-MITRE, Co-PI
2016	\$68,152, “FFRDC Task Order 1: Medical Device Cyber Security Assessment”, FFRDC-NIST-MITRE, Co-PI
2016	\$5542, “Enhancing Recruitment and Training of IS and HCC PhD Students”, UMBC (Dean’s Strategic Planning Implementation Grant), PI
2015	\$25,000, “Anonymization of Network Trace Data”, MITRE, Co-PI
2015	\$39,370, “Efficient Query Algorithms and Database Scalability over Single Node Rya”, US Naval Academy, subcontract, PI
2007-2012	\$449,654, “A privacy-preserving framework for distance-based mining”, National Science Foundation Regular Grant, IIS-0713345, PI
2007-2008	\$61,734, “Using Context and Semantic Networks to support Software Engineers”, National Science Foundation Small Grants for Exploratory Research, CCF-0738898, Co-PI
2006-2007	\$42,168, “Spatiotemporal Data Explorer: An integrated spatiotemporal data warehouse for visualization driven knowledge discovery in water

2005

resources management", USGS National Biological Information
Infrastructure and National Park Service, Co-PI
\$4,000, UMBC summer faculty fellowship, PI

Ph.D. Students

Pooja Parameshwarappa	Expected May 2020,	chair of committee
Fan Yang	July 2019,	chair of committee
Cailing Dong,	June 2017,	chair of committee
Shaikha Al-Duaij	April 2017,	chair of committee
Tamas Gal,	December 2011,	chair of committee
Madhushri Banerjee,	May 2011,	chair of committee
Shibnath Mukherjee,	May 2007,	co-chair of committee
Ohud Saud		chair of committee
Samson Oni		chair of committee
Nujood Alodadi		chair of committee
Amrita Anam,	April 2019,	committee member
Foteini Cheirdari	February 2019,	committee member
Md Abdullah Al Hafiz Khan	February 2019,	committee member
Yan Li	November 2018,	committee member
Anupama Dash	December 2017,	committee member
Ibrahim Toure	June 2017,	committee member
John W. Hebel	June 2017,	committee member
Yin Kang	April 2017,	committee member
Yuepu Guo	September 2016,	committee member
Ali Azari	December 2015,	committee member
Josephine Namayanja	April 2015,	committee member
Lei Shi	April 2014,	committee member
Yanan Sun	April 2014,	committee member
Xin Li,	August 2011,	committee member
Madhu Ahluwalia,	May 2011	committee member
Michael McGuire,	April 2010	committee member
Pimwadee Chaovali,	May 2009,	committee member
Navin Kumar,	August 2006,	committee member

Master's Students

Saul Ricardo Medrano Castillo	July 2016	Chair
Ajinkya Gaurkar,	November 2018,	Co-Chair
Dongjin Kim,	December 2010,	Chair
Fatimah Alqurmti,	July 2019,	Committee member
Priyanka Ranade,	April 2019,	Committee member
Swati Verma,	April 2019,	Committee member
Ankur Nagar,	April 2018,	Committee member
Vivek Parganiha	April 2018,	Committee member
Hamad Alsaleh,	November 2017	Committee member
Netsanet Tefera	July 2017,	Committee member
Saiadithya Cumbulam Thangaraj,	April 2017,	Committee member
Bipen Basnyat,	April 2017,	Committee member
Suraksha Shukla,	April 2017,	Committee member
Vishak Iyer,	February 2017,	Committee member
Vasundhara Misal	October 2016,	Committee member
Prathamesh Walkikar	December 2016,	Committee member
Sankalp N. Sawant	November 2015,	Committee member
Jimish Kadakia	November 2015,	Committee member
Mayada Alrige	May 2013	Committee member

Rashmi N Ramesh	April 2011	Committee member
Ruman R Tambe	April 2011	Committee member
Sejal A Shah	April 2011	Committee member
Peng He,	April 2010,	committee member
Eric Tao,	April 2010,	committee member
Shawn Johnson,	May 2009,	committee member

Publications

Peer-Reviewed Works Articles

1. *Pooja Parameshwarappa, Zhiyuan Chen, Gunes Koru, Multi-level Clustering Based Anonymization: An Effective and Computationally Efficient Approach for Anonymizing Large-Scale Physical Activity Data, International Journal of Information Security and Privacy, accepted in 2019. (Italic is student)*
2. *Samson Oni, Zhiyuan Chen, Susan Hoban, Onimi Jademi, A Comparative Study of Data Cleaning Tools, International Journal of Data Warehousing and Mining, 15(4), 48-65, 2019.*
3. *Madhu Ahluwalia, Aryya Gangopadhyay, Zhiyuan Chen, and Yelena Yesha. "Target-Based, Privacy Preserving, and Incremental Association Rule Mining, IEEE Transactions on Services Computing, 10(4), 633-645, 2017.*
4. *Shaikha Al-Duaij, Zhiyuan Chen, and Aryya Gangopadhyay. Using Crowd Sourcing to Analyze Consumers' Response to Privacy Policies of Online Social Network and Financial Institutions at Micro Level, International Journal of Information Security and Privacy, 10(2), 41-63, 2016.*
5. *Tamas S, Gal, Thomas C. Tucker, Aryya Gangopadhyay, and Zhiyuan Chen. A Data Recipient Centered De-identification Method to Retain Statistical Attributes. Journal of biomedical informatics, August 2014, 50: 32-45.*
6. *Madhushri Banerjee, Zhiyuan Chen, and Aryya Gangopadhyay. "A generic and distributed privacy preserving classification method with a worst-case privacy guarantee." Distributed and Parallel Databases, 32(1): 5-35, 2014.*
7. *Liang Tang, Tao Li, Yexi Jiang, and Zhiyuan Chen. Dynamic Query Forms for Database Queries. IEEE Transactions on Knowledge and Data Engineering, 26(9): 2166 - 2178, 2014*
8. **Zhiyuan Chen, Tao Li, and Yanan Sun, A Learning Approach to SQL Query Results Ranking Using Skyline and Users' Current Navigational Behavior. IEEE Transactions on Knowledge and Data Engineering, 2013, 25(12), 2683 - 2693.**
9. *Dongjin Kim, Zhiyuan Chen, and Aryya Gangopadhyay, Optimizing Privacy-Accuracy Tradeoff for Privacy Preserving Distance-Based Classification, International Journal of Information Security and Privacy, 2012. 6(2): 16-33.*
10. *Pimwadee Chaovalit, Aryya Gangopadhyay, George Karabatis, and Zhiyuan Chen, Discrete Wavelet Transform-based Time Series Analysis and Mining. ACM Computing Surveys, 2011. 43(2): p. 1-37.*
11. *Yu Fu, Zhiyuan Chen, A. Gunes Koru, and Aryya Gangopadhyay. A Privacy Protection Technique for Publishing Data Mining Models and Research Data, ACM Transactions on Management Information Systems, 2010. 1(1): 1-20.*
12. *Shibnath Mukherjee, Aryya Gangopadhyay, and Zhiyuan Chen. A Partial Optimization Approach for Privacy Preserving Frequent Itemset Mining. International Journal of Computational Models and Algorithms in Medicine, 2010. 1(1): p. 19-33. IGI Global, Hershey, PA.*
13. *Madhu V. Ahluwalia, Aryya Gangopadhyay, and Zhiyuan Chen. Preserving Privacy in Mining Quantitative Association rules, International Journal of Information Security and Privacy, 2009. 3(4): p. 1-17. IGI Global, Hershey, PA.*
14. *George Karabatis, Zhiyuan Chen, Vandana Janeja, Tania Lobo, Monish Advani, Mikael Lindvall, and Raimund L. Feldmann, Using Semantic Networks and Context in Search for Relevant Software Engineering Artifacts, Journal on Data Semantics, 2009, 14: p. 74-104. Springer, New York, NY, 2009.*

15. *Tamas Gal, Zhiyuan Chen, and Aryya Gangopadhyay, A Privacy Protection Model for Patient Data with Multiple Sensitive Attributes, International Journal of Information Security and Privacy, IGI Global, Hershey, PA, vol. 2 (3), pp. 28-44, 2008.*
16. *Navin Kumar, Aryya Gangopadhyay, Sanjay Bapna, George Karabatis, and Zhiyuan Chen, Measuring interestingness of discovered skewed patterns in data cubes. Decision Support Systems, Elsevier, Cambridge, MA, 2008. 46(1): p. 429-439.*
17. *Shibnath Mukherjee, Madhushri Banerjee, Zhiyuan Chen, and Aryya Gangopadhyay, A Privacy Preserving Technique for Distance-based Classification with Worst Case Privacy Guarantees. Data & Knowledge Engineering, Elsevier, Cambridge, MA, 2008. 66(2): p. 264-288.*
18. *Shibnath Mukherjee, Zhiyuan Chen, and Aryya Gangopadhyay, A Fuzzy Programming Approach for Data Reduction and Privacy in Distance Based Mining. International Journal of Information and Computer Security, Inderscience Publishers, Geneva, Switzerland, 2008. 2(1): p. 27-47.*
19. *Zhiyuan Chen, Aryya Gangopadhyay, George Karabatis, Steve Holden, Michael McGuire, and Cambridge Elsevier, MA., Semantic Integration of Government Data for Water Quality Management. Journal of Government Information Quarterly, Elsevier, Cambridge, MA, 2007. 24(4): p. 716-735.*
20. *Zhiyuan Chen, Aryya Gangopadhyay, George Karabatis, Michael McGuire, and Claire Welty, Semantic Integration and Knowledge Discovery for Environmental Research. Journal of Database Management, Elsevier, Cambridge, MA, 2007. 18(1): p. 43-68.*
21. *Zhiyuan Chen, Johannes Gehrke, Flip Korn, Nick Koudas, Jayavel Shanmugasundaram, and Divesh Srivastava, Index structures for matching XML twigs using relational query processors. Data & Knowledge Engineering, Elsevier, Cambridge, MA, 2007. 60(2): p. 283-302.*
22. *Navin Kumar, Aryya Gangopadhyay, George Karabatis, Sanjay Bapna, and Zhiyuan Chen, Navigation Rules for Exploring Large Multidimensional Data Cubes. International Journal of Data Warehousing and Mining, IGI Global, Hershey, PA, 2006. 2(4): p. 27-48.*
23. *Shibnath Mukherjee, Zhiyuan Chen, and Aryya Gangopadhyay, A Privacy Preserving Technique for Euclidean Distance-Based Mining Algorithms Using Fourier-Related Transforms. The VLDB Journal, Springer Berlin / Heidelberg, 2006. 15(4): p. 293-315.*
24. *Surajit Chaudhuri, Zhiyuan Chen, Kyuseok Shim, and Yuqing Wu, Storing XML (with XSD) in SQL Databases: Interplay of Logical and Physical Designs. IEEE Transactions on Knowledge and Data Engineering, IEEE Computer Society Press, Washington, DC. 2005. 17(12): p. 1595-1609.*
25. *Zhiyuan Chen, Flip Korn, Nick Koudas, and S. Muthukrishnan, Generalized Substring Selectivity Estimation. Journal of Computer and System Sciences, Elsevier, Cambridge, MA, 2003. 66(1): p. 98-132.*

Conference Proceedings

1. *Fan Yang, Adina Crainiceanu, Zhiyuan Chen, Don Needham, Cluster-Based Join for Geographically Distributed Big RDF Data, IEEE BigData Congress, accepted, 2019. (Acceptance rate 23%).*
2. *Samson Oni, Zhiyuan Chen, Adina Crainiceanu, Karuna Joshi, Don Needham, Situation-Aware Access Control in Federated Data-as-a-Service for Maritime Search and Rescue, IEEE International Conference on Service Computing (SCC), accepted, 2019.*
3. *Fan Yang, Zhiyuan Chen, Aryya Gangopadhyay. Using Randomness to Improve Robustness of Tree-based Models Against Evasion Attacks, 5th ACM International Workshop on Security and Privacy Analytics 2019, pp 25-35, Dallas, Texas, March 27, 2019.*
4. *Pooja Parameshwarappa, Zhiyuan Chen, Aryya Gangopadhyay, Analyzing Attack Strategies Against Rule Based Intrusion Detection Systems, International Workshop on Analytics for Security in Cyber Physical Systems, 1-4, Varanasi, India, January 4, 2018.*
5. *Ohud Alqahtani, Zhiyuan Chen, Qiong Huang, Karthik Gottipati, Is Bigger Safer? Analyzing Factors Related to Data Breaches Using Publicly Available Information, in Fourth International Conference on Information Systems Security and Privacy (ICISSP), pp 373-378, January 22-24, Funchai, Portugal, 2018.*
6. *Ashwinkumar Ganesan, Pooja Parameshwarappa, Akshay Peshave, Zhiyuan Chen, Tim Oates, Extending Signature-based Intrusion Detection Systems With Bayesian Abductive Reasoning. DYNAMIC and Novel Advances in Machine Learning and Intelligent Cyber Security (DYNAMICS) Workshop, December 3-7, San Juan, Puerto Rico, USA, 2018.*

7. *Pei Guo*, Jianwu Wang, **Zhiyuan Chen**, A Comparison of Big Data Application Programming Approaches: A Travel Companion Case Study, in First IEEE International Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD 2017) at IEEE Big Data Conference (IEEE BigData 2017), pp 2869-2878, Boston, USA, December 11-14, 2017.
8. *Ahmed Aleroud*, **Zhiyuan Chen**, George Karabatis, Network Traffic Anonymization Using a Prefix- Preserving Condensation-based Technique, in OTM Confederated International Conferences On the Move to Meaningful Internet Systems, 934-942, 24-26 Oct 2016, Rhodes, Greece.
9. *Castillo, Saul Ricardo Medrano*, and Zhiyuan Chen. "Using Transfer Learning to Identify Privacy Leaks in Tweets." In Collaboration and Internet Computing (CIC), 2016 IEEE 2nd International Conference on, pp. 506-513. IEEE, 2016.
10. *Ding, Tao, Arpita Roy, Zhiyuan Chen*, Qian Zhu, and Shimei Pan, Analyzing and retrieving illicit drug-related posts from social media. In Bioinformatics and Biomedicine (BIBM), 2016 IEEE International Conference on, pp. 1555-1560. IEEE, 2016.
11. *Li Xue*, Yun Xiong, yangyong Zhu, Jianfeng Wu, **Zhiyuan Chen**. Stock Trend Prediction By Classifying Aggregative Web Topic Opinion, in *Proc. of The 17th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Gold Coast, Australia., April 14-17 , 2013: 173-184. (Acceptance rate: 11.3%)
12. *Xue Bai*, Yun Xiong, Yangyong Zhu, Qi Liu, **Zhiyuan Chen**: Co-anomaly Event Detection in Multiple Temperature Series. Knowledge Science, Engineering and Management - 6th International Conference, KSEM 2013, Dalian, China, August 10-12, 2013: 1-14. Lecture Notes in Computer Science Volume 8041, 2013 (best paper award).
13. *Madhu Ahluwalia*, Aryya Gangopadhyay, **Zhiyuan Chen**, and Yelena Yesha, Target-Based Privacy Preserving Association Rule Mining, in *Proc. of ACM Symposium On Applied Computing (SAC)*, Taiwan, pp. 960-965, 2011.
14. *Madhushri Banerjee*, **Zhiyuan Chen**, and Aryya Gangopadhyay. A Utility-Aware and Holistic Approach for Privacy Preserving Distributed Mining with Worst Case Privacy Guarantee, in *Proc. of Secure Knowledge Management Workshop (SKM 2010)*, New Brunswick, NJ, October 21-22, 2010.
15. *Somnath Chakrabarti*, **Zhiyuan Chen**, Aryya Gangopadhyay, and Shibnath Mukherjee. Privacy Preserving Linear Discriminant Analysis from Perturbed Data, in *Proc. of ACM Symposium on Applied Computing*, Sierre, Switzerland, March 22 - March 26, 2010.
16. *Yu Fu*, **Zhiyuan Chen**, A. Gunes Koru, and Aryya Gangopadhyay. A Privacy Protection Technique for Publishing Data Mining Models and Supporting Data. *The Nineteenth Annual Workshop on Information Technologies and Systems (WITS'09)*, Phoenix, Arizona, USA, 14-15 December 2009.
17. *Yu Fu*, A. Gunes Koru, **Zhiyuan Chen**, and Khaled El Emam, A Tree-Based Approach to Preserve Privacy of Software Engineering Data and Predictive Models. *The International Conference on Predictor Models in Software Engineering*, Vancouver, Canada, May 18-19, 2009.
18. Mikael Lindvall, Raimund L. Feldmann, George Karabatis, **Zhiyuan Chen**, and Vandana P. Janeja, Searching for Relevant Software Change Artifacts using Semantic Networks, in *Proc. of ACM Symposium on Applied Computing*, pp. 496-500, Honolulu, Hawaii, USA, March 9-12, 2009.
19. *Shibnath Mukherjee*, **Zhiyuan Chen**, Aryya Gangopadhyay, and Stephen Russell, A Secure Face Recognition System for Mobile-devices without The Need of Decryption. *Workshop on Secure Knowledge Management (SKM 2008)*, Dallas, Texas, November 3-4, 2008.
20. Shenghuo Zhu, Tao Li, **Zhiyuan Chen**, Dingding Wang, and Yihong Gong, Dynamic Active Probing of Helpdesk Databases. *International Conference on Very Large Data Bases*, Auckland, New Zealand, August 23 - August 28, 2008: p. 748-760 (Acceptance rate: 16.7%).
21. *Madhu Ahluwalia*, **Zhiyuan Chen**, Aryya Gangopadhyay, and Zhiling Guo, Preserving Privacy in Supply Chain Management: a Challenge for Next Generation Data Mining. *NSF Symposium on next generation data mining*, October 10 - October 12, 2007, Baltimore, MD.
22. **Zhiyuan Chen** and Tao Li, Addressing Diverse User Preferences in SQL-Query-Result Navigation. *ACM SIGMOD Conference*, Beijing, China, June 12-14, 2007: p. 641-652(Acceptance rate: 14%).

23. Dongsong Zhang, George Karabatis, **Zhiyuan Chen**, Boonlit Adipat, Liwei Dai, Tony Zhang, and Yu Wang, Personalization and Visualization on Handheld Devices. *ACM Symposium on Applied Computing*, Dijon, France, April 23-27, 2006: p. 1008-1012.
24. **Zhiyuan Chen**, Johannes Gehrke, Flip Korn, Nick Koudas, Jayavel Shanmugasundaram, and Divesh Srivastava, Index Structures for Matching XML Twigs Using Relational Query Processors. *International Workshop on XML Schema and Data Management (XSDM'05)*, pp. 1273, April 5-8, 2005, Tokyo, Japan.
25. Surajit Chaudhuri, **Zhiyuan Chen**, Kyuseok Shim, and Yuqing Wu, Storing XML (with XSD) in SQL Databases: Interplay of Logical and Physical Designs, in *Proc. of International Conference on Data Engineering (ICDE)*. pp. 842, March 30 - April 2, 2004, Boston, USA. (Acceptance rate: 20%).
26. **Zhiyuan Chen**, Johannes Gehrke, and Flip Korn, Query Optimization in Compressed Database Systems. *ACM SIGMOD International Conference on Management of Data*, Santa Barbara, California, May 21-24, 2001: p. 271-282(Acceptance rate: 15%).
27. **Zhiyuan Chen**, H.V. Jagadish, Flip Korn, Nick Koudas, S.Muthukrishnan, Raymond Ng, and Divesh Srivastava, Counting Twig Matches in A Tree. *International Conference on Data Engineering (ICDE)*, April 2-6, 2001, Heidelberg, Germany: p. 595-604(Acceptance rate: 17%).
28. **Zhiyuan Chen**, Flip Korn, Nick Koudas, and S.Muthukrishnan, Selectivity Estimation for Boolean Queries. *ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS)*, May 15-17, 2000, Dallas, Texas, USA: p. 216-225(Acceptance rate: 22%).
29. **Zhiyuan Chen** and Praveen Seshadri, An Algebraic Compression Framework for Query Results. *International Conference on Data Engineering (ICDE)*, 28 February - 3 March, 2000, San Diego, California, USA: p. 177-188(Acceptance rate: 14%).
30. Philippe Bonnet, Kyle Buza, **Zhiyuan Chen**, Victor Cheng, Randolph Chung, Takako-M. Hickey, Ryan Kennedy, Daniel Mahashin, Tobias Mayr, Ivan Oprenca, Praveen Seshadri, and Hubert Siu., The Cornell Jaguar System: Adding Mobility to Predator, in *Proc. of ACM SIGMOD International Conference on Management of Data*, Philadelphia, Pennsylvania, USA, pp. 580-581, June 1-3, 1999.

Non-Peer-Reviewed Works

Chapters in Books

31. Tamas Gal, **Zhiyuan Chen**, and Aryya Gangopadhyay, A Privacy Protection Model for Patient Data with Multiple Sensitive Attributes, in *Pervasive Information Security and Privacy Developments: Trends and Advancements*, Editor: Hamid Nemati, pages 44-60. 2010, IGI Global: Hershey, PA.

Conference Abstract

32. Pooja Parameshwarappa, **Zhiyuan Chen**, Gunes Koru, Effective and Efficient Anonymization of Health-Related Physical Activity Data, in 28th Summer Institute in Nursing Informatics, July 18-July 20, 2018.
33. Joseph Chen, Aryya Gangopadhyay, Madhushri Banerjee, **Zhiyuan Chen**, Yelena Yesha, Jigar Patel, and Eliot Siegel. A Novel Algorithm to De-Identify Pixel Data from CT Scans of the Head and Face to Protect against Patient Identification Using a 3D Surface Reconstruction. in *Radiological Society of North America 97th Scientific Assembly and Annual Meeting. 2011. Chicago.*

Works Submitted or In Preparation

Articles (Peer Reviewed)

1. Shaikha Al-Duajj, Zhiyuan Chen, and Aryya Gangopadhyay, A Keyword-matching Based Information Extraction Method for Privacy Policies (under review).
2. Ahmed AlEroud, Fan Yang, Sai Chaithanya, Zhiyuan Chen, and George Karabatis, Anonymization of Network Trace Data through Condensation-based Differential Privacy (under review).
3. Fan Yang, Zhiyuan Chen, Aryya Gangopadhyay, Using Randomness to Improve Robustness of Tree-based Models Against Evasion Attacks (Under Review).

4. Ohud Alqahtani, Zhiyuan Chen, Qiong Huang, Karthik Gottipati, Statistical Analysis of Relationships of U.S. Organizations' Size, Popularity, Age, and Location to Frequency of Data Breaches (Under Review).
5. Fan Yang, Adina Crainiceanu, Zhiyuan Chen, Don Needham, Cluster-Based Join for Geographically Distributed Big RDF Data (in preparation).
6. Pooja Parameshwarappa, Zhiyuan Chen, Gunes Koru, Effective Anonymization of Daily Activity Data Using K-Anonymity and l -diversity Privacy Models (in preparation).
7. Shaikha Al-Duaij, Zhiyuan Chen, and Aryya Gangopadhyay, A Data Mining Approach to Compare Privacy Policies (in preparation).

Conference Proceedings (Peer Reviewed)

8. Pooja Parameshwarappa, Zhiyuan Chen, Aryya Gangopadhyay, Marc P Stoecklin, A Hybrid Approach to Harden Event-Correlation Rules in Intrusion Detection Systems Against Evasion Attacks (in preparation).

Presentations

Conference / Poster Presentations (Juried / Refereed)

- Fan Yang, **Zhiyuan Chen**, Aryya Gangopadhyay. Using Randomness to Improve Robustness of Tree-based Models Against Evasion Attacks, 5th ACM International Workshop on Security and Privacy Analytics 2019, Dallas, Texas, March 27, 2019.
- Pooja Parameshwarappa, **Zhiyuan Chen**, Aryya Gangopadhyay, Analyzing Attack Strategies Against Rule Based Intrusion Detection Systems, International Workshop on Analytics for Security in Cyber Physical Systems, 1-4, Varanasi, India, January 4, 2018.
- Ohud Alqahtani, **Zhiyuan Chen**, Qiong Huang, Karthik Gottipati, Is Bigger Safer? Analyzing Factors Related to Data Breaches Using Publicly Available Information, in Fourth International Conference on Information Systems Security and Privacy (ICISSP), pp 373-378, January 22-24, Funchai, Portugal, 2018.
- Ashwinkumar Ganesan, Pooja Parameshwarappa, Akshay Peshave, **Zhiyuan Chen**, Tim Oates, Extending Signature-based Intrusion Detection Systems With Bayesian Abductive Reasoning. DYNAMIC and Novel Advances in Machine Learning and Intelligent Cyber Security (DYNAMICS) Workshop, December 3-7, San Juan, Puerto Rico, USA, 2018.
- Pooja Parameshwarappa, Zhiyuan Chen, Günes Koru. "A Multi-level Clustering Approach for Anonymizing Physical Activity Data". In the 8th Annual Conference on Health IT and Analytics (CHITA), Washington DC, November 3-4, 2017.
- Castillo, Saul Ricardo Medrano, and Zhiyuan Chen. "Using Transfer Learning to Identify Privacy Leaks in Tweets." In Collaboration and Internet Computing (CIC), 2016 IEEE 2nd International Conference on, pp. 506-513. IEEE, 2016.
- Li Xue, Yun Xiong, yangyong Zhu, Jianfeng Wu, **Zhiyuan Chen**. Stock Trend Prediction By Classifying Aggregative Web Topic Opinion, in *Proc. of The 17th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Gold Coast, Australia., 2013.
- Madhushri Banerjee, **Zhiyuan Chen**, and Aryya Gangopadhyay. A Utility-Aware and Holistic Approach for Privacy Preserving Distributed Mining with Worst Case Privacy Guarantee, in *Proc. of Secure Knowledge Management Workshop (SKM 2010)*, New Brunswick, NJ, October 21-22, 2010. (Presenter: Madhushri Banerjee)
- Yu Fu, A. Gunes Koru, **Zhiyuan Chen**, and Khaled El Emam, A Tree-Based Approach to Preserve Privacy of Software Engineering Data and Predictive Models. *The International Conference on Predictor Models in Software Engineering*, Vancouver, Canada, May 18-19, 2009. (Presenter: Yu Fu)
- Mikael Lindvall, Raimund L. Feldmann, George Karabatis, **Zhiyuan Chen**, and Vandana P. Janeja, Searching for Relevant Software Change Artifacts using Semantic Networks. *ACM Symposium on Applied Computing*, Honolulu, Hawaii, USA, March 9-12, 2009. (Presenter: George Karabatis)

- Shenghuo Zhu, Tao Li, **Zhiyuan Chen**, Dingding Wang, and Yihong Gong, Dynamic Active Probing of Helpdesk Databases. *International Conference on Very Large Data Bases*, Auckland, New Zealand, August 23 - August 28, 2008: p. 748-760. (Presenter: Zhiyuan Chen).
- Shibnath Mukherjee, **Zhiyuan Chen**, Aryya Gangopadhyay, and Stephen Russell, A Secure Face Recognition System for Mobile-devices without The Need of Decryption. *Workshop on Secure Knowledge Management (SKM 2008)*, Dallas, Texas, November 3-4, 2008 (Presenter: Zhiyuan Chen).
- **Zhiyuan Chen** and Tao Li, Addressing Diverse User Preferences in SQL-Query-Result Navigation. *ACM SIGMOD Conference*, Beijing, China, June 12-14, 2007: p. 641-652 (Presenter: Zhiyuan Chen).
- Dongsong Zhang, George Karabatis, **Zhiyuan Chen**, Boonlit Adipat, Liwei Dai, Tony Zhang, Yu Wang. Personalization and Visualization on Handheld Devices. *The 21st Annual ACM Symposium on Applied Computing*, 1008-1012, Dijon, France, April 23-27, 2006 (Presenter: Liwei Dai).
- **Zhiyuan Chen**, Johannes Gehrke, Flip Korn, Nick Koudas, Jayavel Shanmugasundaram, and Divesh Srivastava, Index Structures for Matching XML Twigs Using Relational Query Processors. *International Workshop on XML Schema and Data Management (XSDM'05)*, pp. 1273, April 5-8, 2005, Tokyo, Japan (Presenter: Divesh Srivastava).

Conference / Poster Presentations (Non-Juried / Refereed)

- Joseph Chen, Aryya Gangopadhyay, Madhushri Banerjee, **Zhiyuan Chen**, Yelena Yesha, Jigar Patel, and Eliot Siegel. A Novel Algorithm to De-Identify Pixel Data from CT Scans of the Head and Face to Protect against Patient Identification Using a 3D Surface Reconstruction. *in Radiological Society of North America 97th Scientific Assembly and Annual Meeting. 2011. Chicago.*

Other Professional Presentations

Lectures (Non-Juried)

- **Zhiyuan Chen**. Big Data Management and Privacy. July 10- July 13, 2014. Fudan University, China.
- **Zhiyuan Chen**. Querying Big Data and Data Privacy. September 1 – September 4, 2015. Fudan University, China.

SERVICE TO THE DEPARTMENT, UNIVERSITY, COMMUNITY, AND PROFESSION

University

- 2018-2020, member, faculty affairs committee
- 2018-2019, member, college award committee
- 2018-2019, member, IS department chair search committee
- 2017, member, dean's search committee
- 2015-2017, member, organization and university operations committee
- 2013-2015, member, faculty senate
- 2014, member, dean search committee
- 2013-2014, member, research council
- 2013-2014, co-chair, faculty grievance council
- 2012-2013, member, faculty grievance council
- 2010-2012, member, graduate council
- 2010-2012, member, faculty affairs committee
- 2008-2010, member, athletics/recreation policy committee

Department

- August 2019-present, associate chair for academic affairs

- 2012-August 2019, graduate program director for IS on campus programs
- 2012-May 2019, chair, graduate committee for IS on campus programs
- 2018-present, member, graduate committee for online MS program
- 2016-2017, member, faculty search committee
- 2012-2016, member, research committee
- 2011-2012, member, graduate committee
- 2011-2012, chair, research committee
- 2011-2012, member, recruit committee
- 2011, member, search committee for IS department chair
- 2010-2011, chair, research committee
- 2010-2011, member, search committee
- 2010-2011, member, graduate committee
- 2009-2010, member, research committee
- 2009-2010, member, graduate committee
- 2008-2009, member, research committee
- 2008-2009, member, graduate committee
- 2007-2008, member, graduate committee
- 2007-2008, member, research committee
- 2006 – 2007, member, recruitment committee
- 2006-2007, member, graduate committee
- 2005 – 2006, member, research committee

Profession

- International Journal of Knowledge-Based Organizations (IJKBO), managing editor
- International Journal of Information Security and Privacy (IJISP), editorial board member
- International Journal of Advanced Computer Research(IJACR), editorial board member
- International Journal of Embedded Software and Open Source Systems (IJESOS), editorial board member
- 2020, Big Data Research (Journal) Special Issue, Editor
- 2017-2019, The IEEE International Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD 2017, 2018, 2019), chair
- Manuscript Reviewer for ACM Transactions of Database Systems, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Big Data, the VLDB Journal, Data and Knowledge Engineering, Journal of Biomedical Informatics, PLOS One, Journal of Database Management, Information Science, IEEE Intelligent Systems, the Journal of Computer and System Sciences, ACM Multimedia Systems, SpringerPlus, Information Systems, Information and Software Technology, Knowledge and Information Systems, IBM Systems Journal.
- 2019, CIKM, program committee member
- 2019, PAKDD, program committee member
- 2015-2019, IEEE International Conference on Big Data, Program Committee Member
- 2016-2019, IEEE International Conference on Data Mining (ICDM), Program Committee Member
- 2019, 3rd International Conference on Big Data Management (ICDBM), Program Committee Member
- 2018, WWW poster track, program committee member
- 2018, IEEE Intl. Conf. on Data Science and Systems (DSS-2018), Program Committee Member
- 2018, International Joint Conference on Knowledge Discovery and Information Retrieval (KDIR), Program Committee Member
- 2017, International Conference on Behavioral, Economic, and Socio-Cultural Computing (BESC 2017), program committee member
- 2017, PAKDD, program committee member

- 2017, IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC), program committee member
- 2017, IEEE International Conference SmartData, program committee member
- 2016, IEEE International Conference on Big Data, Session Chair
- 2016, 4th International Conference on Information and Network Security (ICINS2016), Program Committee Member
- 2016, the 8th International Conference on Information Science and Applications, Program Committee Member
- 2016, IEEE International Conference on Big Data Science and Engineering, Program Committee Member
- 2016, 9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, Program Committee Member
- 2016, The 3rd International Conference on Behavioral, Economic, and Socio-Cultural Computing (BESC2016), Program Committee Member
- 2016, PAKDD, program committee member
- 2015, IEEE International Conference on Big Data, program committee member
- 2015, PAKDD 2015, program committee member
- 2015, IEEE International Conference on Dependable, Autonomic and Secure Computing, program committee member
- 2014, International Conference on Behavioral, Economic, and Socio-Cultural Computing (BESC'2014), program committee member
- 2014, the 13th IEEE International Conference on Trust, Security and Privacy in Computing and Communications, program committee member
- 2014, PAKDD 2014, program committee member
- 2013, NSF panelist
- 2013, the IEEE International Conference on Data Mining (ICDM'13), program committee member
- 2013, 2013 IEEE International Conference on Big Data (IEEE Big Data 2013), program committee member
- 2013, The 14th International Conference on Web Information Systems Engineering (WISE 2013), program committee member
- 2013, The 13th IEEE International Conference on Computer and Information Technology (CIT 2013), program committee member
- 2013, The 15th IEEE International Conference on High Performance Computing and Communications (HPCC 2013), program committee member
- 2012, NIH panelist
- 2012, reviewer for American Institute of Biological Sciences, International Journal of Information and Decision Sciences, Knowledge and Information Systems, VLDB journal,
- 2012, ACM SIGKDD Conference (KDD), program committee member.
- 2012, IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-12), program committee member
- 2012, Int. Conf. on Web Information System Engineering (WISE 2012), program committee member.
- 2011, The 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining, (PAKDD), program committee member
- 2011, International Conference on Computer and Information Technology (CIT'11), Program committee member.
- 2009, International Journal of Computational Models and Algorithms in Medicine, guest editor for a special issue on Privacy and Security Issues for Medical Data.
- 2010, International Conference on Data Engineering (ICDE 2010), program committee member.
- 2009, NIH panelist
- 2009, IEEE International Conference on Data Mining (ICDM 2009), program committee member

- 2009, International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2009), program committee member
- 2009, International Conference on Computer and Information Technology (CIT'09), Program committee member.
- 2009, 11th ACM International Workshop on Web Information and Data Management (WIDM 2008), Program committee member.
- 2008, NSF panelist.
- 2008, IEEE International Conference on Data Mining (ICDM 2008), program committee member.
- 2008, International Conference on Extending Database Technology (EDBT), Program committee member.
- 2008, The Eighth International Conference on Computer and Information Technology (CIT'08), Program committee member.
- 2008, 10th ACM International Workshop on Web Information and Data Management (WIDM 2008), Program committee member.
- 2007, International Conference on Extending Database Technology (EDBT), Program committee member.
- 2007, The Seventh International Conference on Computer and Information Technology (CIT'07), Program committee member.
- 2006, The Sixth International Conference on Computer and Information Technology (CIT'06), Program committee member.
- 2006, WISE Workshop on Web-Based Massive Data Processing 2006, Program committee member.
- 2006, Workshop on IEEE International Workshop on Mining Evolving and Streaming Data 2006, Program committee member.
- 2005, The Fifth International Conference on Computer and Information Technology (CIT'05), Program committee member.
- 2004, IADIS International Conference Applied Computing 2004, Program committee member.
- 2004-2009, Manuscript Reviewer for top database conferences such as SIGMOD, VLDB, and ICDE.
- 2005, Proposal Reviewer for NSF.