Dianxiang Xu

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EDUCATION

Ph.D., M.S., B.S., Computer Science, Nanjing University, China

RESEARCH INTERESTS

Software security, access control, software engineering, data analytics, intelligent agents, computer forensics

TEACHING INTERESTS

Software engineering, advanced software engineering, software testing and verification, secure software engineering, secure programming, computer and information security, computer forensics, artificial intelligence, programming languages

EMPLOYMENT

- August 2022 – present: Professor and Director, Division of Computing, Analytics and Mathematics, University of Missouri – Kansas City
- September 2019 – July 2022: Professor and Associate chair (September 2021– July 2022), Department of Computer Science Electrical Engineering, University of Missouri – Kansas City
- August 2013 – August 2019: Professor, Department of Computer Science, Boise State University
- May 2009 – August 2013. Associate professor, National Center for the Protection of the Financial Infrastructure, College of Business and Information Systems, Dakota State University
- July 2003 – May 2009. Assistant professor, Department of Computer Science, North Dakota State University
- August 2000 – July 2003. Research assistant professor/engineer, Department of Computer Science, Texas A&M University
- May 1999 – August 2000. Research associate, School of Computer Science, Florida International University
- July 1998 – May 1999. Associate chair, Department of Computer Science and Technology, Nanjing University
- March 1998 – November 2000. Associate professor, Department of Computer Science and Technology, Nanjing University (On leave from May 1999 to November 2000)
- July 1995 – February 1998. Assistant professor, Department of Computer Science and Technology, Nanjing University

GRANTS AND CONTRACTS

1. REU Site: AI-Empowered Cybersecurity, NSF 2349236, $465,000, 05/2024-04/2027. Yugyung Lee (PI), Dianxiang Xu.

2. ESL Level 2: Building AI-Powered Responsible Workforce by Integrating Large Language Models into Computer Science Curriculum, NSF 2336061, $750,000. 02/2024-01/2027. Dianxiang Xu (PI), Brian Hare, Joan Gladbach, Syed Jawad H Shah.

3. Collaborative Research: EAGER: Education DCL: Harnessing the Power of Large Language Models in Digital Forensics Education at MSI and HBCU, NSF 2333951, $130,000, 10/2023-9/2025. Dianxiang Xu (PI).

4. FMitF: Track II: SMT-Based Reachability Analyzer of NGAC Policies, NSF 2318891, $100,000, 7/2023-12/2024. Dianxiang Xu (PI).

5. "GenCyber Summer Camps for Underrepresented High School Students in the Kansas City Metropolitan Area", NSA, $149,995, 7/2023 – 7/2025, Dianxiang Xu (PI), Yugyung Lee, Farid Nait-Abdesselam.

6. "GenCyber Summer Camps for Underrepresented High School Students in the Kansas City Metropolitan Area", NSA, $149,836, 8/2022 – 7/2024, Dianxiang Xu (PI), Yugyung Lee, Farid Nait-Abdesselam.

7. "Interdisciplinary Graduate Training through Research in Artificial Intelligence and Secure Networked Sensing to Mitigate the Crisis of Alcohol and Drug Abuse", NSF 2152057, $2,999,999, 6/2022 – 6/2027, Farid Nait-Abdesselam (PI), Yugyung Lee, Dianxiang Xu, Masud Chowdhury, Mostafizur Rahman.

8. "GenCyber Summer Camps for Underrepresented High School Students in the Kansas City Metropolitan Area", NSA, $143,461, 8/2021 – 7/2023, Dianxiang Xu (PI), Yugyung Lee, Farid Nait-Abdesselam.

9. "EAGER: SaTC-EDU: Exploring Visualized and Explainable AI to Improve Students' Learning Experience in Digital Forensics Education at MSI and HBCU", NSF 2039288, $105,600, 4/2021 – 3/2024, Dianxiang Xu (PI).

10. "GenCyber Summer Camps for Underrepresented High School Students in the Kansas City Metropolitan Area", NSA, $96,058, 4/2021 – 3/2022, Dianxiang Xu (PI), Yugyung Lee, Farid Nait-Abdesselam.

11. "Capacity Building: Integrating Data Science into Cybersecurity Curriculum", NSF 1820685, $499,964, 9/2018 – 8/2022, Edoardo Serra (PI), Francesca Spezzano, and Dianxiang Xu. Transferred a subaward $124,000 to UMKC.

12. "TWC: Small: Benchmarking Testing Methods for Access Control Policies", NSF CNS 1954327, $285,157, 9/2019-8/2022, Dianxiang Xu (PI). Transferred from NSF CNS 1618229, $497,121 (total), September 2016 – August 2019.

13. "IUSE/PFE:RED: Computer Science Professionals Hatchery: An Ecosystem for Nurturing the Next Generation of Computer Science Professionals", NSF EEC 1623189, $2,000,000, 7/ 2016 – 6/2022, Amit Jain (PI), Dianxiang Xu, Timothy Andersen, Noah Salzman, Donald Winiecki.

14. "Gencyber Summer Camps for Underrepresented Idaho High School Students", NSA, $99,990, 3/ 2018-2/2019, Gaby Dagher (PI), Jidong Xiao, Dianxiang Xu.

15. "EDU: Developing a Software Artifact Repository for Software Assurance Education", NSF DGE 1522847, $300,000, 9/2015 – 8/2018, Dianxiang Xu (PI).

16. "Summer Research Experience for High School Students in Cybersecurity", NASA Idaho Space Grant Consortium, $50,038, 6/2017 – 5/2018, Jyh-haw Yeh (PI), Dianxiang Xu.

17. "REU Site: Software Security", NSF CNS 1461133, $344,000 (including $20,000 RET supplement), 3/2015 – 2/2018, Dianxiang Xu (PI) and Jyh-haw Yeh.

18. "TTP: Small: Automated Conformance Testing of Access Control and Obligation Policies", NSF CNS 1359590, $515,371 (including $15,600 REU supplement), 9/2013 – 8/2017. Dianxiang Xu (PI).

19. "RET Site: Cyber Security", NSF CNS 1200648, $500,000, 5/2012 – 4/2015, Dianxiang Xu (PI) and Pat Engebretson. (PI transfer in September 2013)

20. "MRI: Acquisition of an Online Banking System for Information Assurance Research", NSF CNS 1123220, $400,000, 9/2011 – 8/2014. Dianxiang Xu (PI), Joshua Pauli, Manghui Tu. (PI transfer and subaward $145,000 to BSU in September 2013)

21. "Model-Based Test Automation Technique and Tool", Samsung Electronics (Korea), $60,000. 7/2011 – 12/2011, Dianxiang Xu (PI).

22. "Dakota Defenders Information Assurance Scholarship Program", NSF DUE 1026114, $1,305,565. 3/2011 – 2/2015, Josh Pauli (PI), Tom Halverson, Dianxiang Xu, Pat Engebretson, Kevin Streff

23. "Automated Test Generation for Embedded Concurrent Software", Samsung Electronics (Korea), $40,000. 10/2010 – 2/2011, Dianxiang Xu (PI).

24. "REU Site: Information Assurance and Security", NSF CNS 1004843, $328,427, 5/2010 – 4/2013, Dianxiang Xu (PI) and Josh Pauli.

25. "II-NEW: Infrastructure for Model-Based Security Testing, Controlled Experiments, and Education", NSF CNS 0855106, $220,000, 9/2009 – 8/2012, Hyunsook Do (PI, NDSU, $120,000) and Dianxiang Xu (DSU, $100,000).

26. "A Multi-User Virtual Biology Environment for Discovery-Oriented Science Education", NIH SBIR Phase I, $100,000, 4/2008 – 3/2009, Bradley Vender (PI) and Brian Slator (WoWiWe Instruction Co.), Phillip McClean and Dianxiang Xu (NDSU). Phase II was awarded in 2011.

27. "Testing for Software Safety", NASA OSMA/SARP Center Initiatives, $136,000, 1/2007 – 12/2007, Ken Chen (PI, Johnson Space Center), W. Eric Wong (University of Texas at Dallas), Yann-Hang Lee (Arizona State University), Dianxiang Xu (NDSU).

28. "Automated Generation of Safety Tests", ND NASA EPSCoR through NASA grant #NNXO7AK91A, $18,729, 11/2007 – 8/2008, Dianxiang Xu (PI)

29. "Model-Checking Aspect-Oriented Design Specifications", ND EPSCoR IIP-SG through NSF Grant EPS-047679, $15,000, 10/2006 – 4/2007. Dianxiang Xu (PI).

30. "Model-Based Testing of Aspect-Oriented Software", ND NASA EPSCoR through NASA Grant NCC5-582. $13,750. 4/2006– 7/2006. Dianxiang Xu (PI).

31. "Internet-Based Software Agents and Their Applications in Electronic Commerce". National Hi-Tech Research & Development (a.k.a. 863) Plan of China. RMB Yuan 300,000. 11/1998 – 12/2000. Dianxiang Xu (PI).

32. "Concurrent Behaviors and Non-monotonic Inheritance of Intelligent Agents". Natural Science Foundation of China. RMB Yuan 100,000. 1/1997 – 12/1999. Dianxiang Xu (PI).

33. "Software Agents on Information Networks". National Hi-Tech Research & Development (a.k.a. 863) Plan of China. RMB Yuan 100,000. 6/1996 – 6/1998. Dianxiang Xu (PI).

INTERNAL GRANTS

34. "Predicting Software Vulnerabilities via Deep Learning", UMKC dSAIC Pilot Project, $73,000, 2021-2022. Dianxiang Xu (PI)

35. "Model-based Testing of Obligation Policies", DSU Seed Grant, $9,911, June 2012 - August 2012. Dianxiang Xu (PI).

SELECTED PUBLICATIONS

Books

1. Dianxiang Xu, *Modern Software Engineering: Principles and Practices – Writing Clean, Dependable Code*. Independently Published, January 2021. ISBN-13: 979-8596959666.

Journal Articles

2. Erzhuo Chen, Vladislav Dubrovenski, and Dianxiang Xu. Detecting Errors in NGAC Policies via Fault-Based Testing. *IEEE Transactions on Dependable and Secure Computing*, 10.1109/TDSC.2024.3395187.

3. Rakib Ul Haque, A. S. M. Touhidul Hasan, Mohammed Ali Mohammed Al-Hababi, Yuqing Zhang e, and Dianxiang Xu. SSI−FL: Self-Sovereign Identity Based Privacy-Preserving Federated Learning. *Journal of Parallel and Distributed Computing*. doi.org/10.1016/j.jpdc.2024.104907.

4. Yu Luo, Weifeng Xu, and Dianxiang Xu. Predicting Integer Overflow Errors via Supervised Learning, *International Journal on Artificial Intelligence Tools*. Vol. 31, No. 08, 2250047 (2022).

5. Zhiyuan Li, Weijia Xing, Samer Khamaiseh, and Dianxiang Xu, Detecting Saturation Attacks Based on Self-Similarity of OpenFlow Traffic, *IEEE Transactions on Network and Service Management*, Vol. 17, No. 1, March 2020, pp. 607 - 621.

6. Yan Wu, Anthony Luo, Dianxiang Xu, Identifying Suspicious Addresses in Bitcoin Thefts, *Forensic Science International: Digital Investigation*, Volume 31, December 2019.

7. Dazhi Yang, Dianxiang Xu, Jyh-haw Yeh, Yibo Fan. Undergraduate Research Experience in Cybersecurity for Underrepresented Students and Students with Limited Research Opportunities. *Journal of STEM Education*. Vol. 19, No. 5, Feb. 2019.

8. Manghui Tu, Liangliang Xiao, Dianxiang Xu. Enhancing Availability for Distributed Replicated Services Considering Network Edge Availability. *International Journal of Computer Networks & Communications (IJCNC)*, Vol.11, No.1, January 2019.

9. Izzat Alsmadi, Abdallah Khreishah, Dianxiang Xu. Network Slicing to Improve Multicasting in HPC Clusters. *Cluster Computing*, Vol. 21, No. 3, pp.1493-1506, 2018, Springer.

10. Weifeng Xu, Dianxiang Xu, Abdulrahman Alatawi, Omar El Ariss, and Yunkai Liu. Statistical Unigram Analysis for Source Code Repository. *International Journal of Semantic Computing*, Vol. 12, No. 2, pp. 237-260, 2018.

11. Dianxiang Xu, Weifeng Xu, Manghui Tu, Ning Shen, William Chu, Chih-Hung Chang. Automated Integration Testing Using Logical Contracts, *IEEE Transactions on Reliability*, Vol. 65, No. 3, pp.1205-1222, Sept. 2016.

12. Sandeep Lakkaraju, Dianxiang Xu, Yong Wang. Analysis of Healthcare Workflows in Accordance with Access Control Policies, *International Journal of Healthcare Information Systems and Informatics (IJHISI)*, vol. 11, no. 1, pp.1-20, 2016.

13. Dianxiang Xu, Ning Shen, Yunpeng Zhang. Detecting Incorrect Uses of Combining Algorithms in XACML 3.0 Policies, *International Journal of Software Engineering and Knowledge Engineering*, Vol. 25, Nos. 9 & 10 (2015) 1551–1571. Expanded version of the SEKE'15 paper.

14. Izzat Alsmadi and Dianxiang Xu, Security of Software Defined Networks: A Survey, *Computers and Security*. 53 (2015): 79-108.

15. Dianxiang Xu, Michael Kent, Lijo Thomas, Tejeddine Mouelhi, and Yves Le Traon. Automated Model-Based Testing of Role-Based Access Control Using Predicate/Transition Nets. *IEEE Transactions on Computers*, Vo. 64, No. 9, pp. 2490-2505, September 2015.

16. Dianxiang Xu, Weifeng Xu, Michael Kent, Lijo Thomas, Linzhang Wang. An Automated Test Generation Technique for Software Quality Assurance, *IEEE Transactions on Reliability*, Vol. 64, No. 1, pp. 247-268, March 2015.

17. Manghui Tu, Hui Ma, Liangliang Xiao, I-Ling Yen, Farokh Bastani, Dianxiang Xu. Data Placement in P2P Data Grids Considering the Availability, Security, Access Performance and Load Balancing. *Journal of Grid Computing*, 11(1): 103-127 (2013).

18. Manghui Tu and Dianxiang Xu. Resilience as a New System Engineering for Cloud Systems. *Journal of Communications*. Vol. 8, No. 4, pp. 267-274, 2013.

19. Aaron Marback, Hyunsook Do, Ke He, Samuel Kondamarri, Dianxiang Xu, A Threat Model-based Approach to Security Testing, *Software: Practice and Experience*, Vol. 43, No.2, pp. 241-258, Feb. 2013.

20. Manghui Tu, Dianxiang Xu, Eugene Butler, and Amanda Schwartz. Forensic Evidence Identification and Modeling for Attacks against a Simulated Online Business Information System. *Journal of Digital Forensics, Security, and Law*. Vol. 7, No. 4, 2012.

21. Dianxiang Xu, Manghui Tu, Michael Sanford, Lijo Thomas, Daniel Woodraska, and Weifeng Xu, Automated Security Test Generation with Formal Threat Models, *IEEE Transactions on Dependable and Secure Computing*, Vol. 9, No.4, July/August 2012, pp. 525-539.

22. Omar El Ariss, Dianxiang Xu. Secure System Modeling: Integrating Security Attacks with Statecharts. *International Journal of Software and Informatics*, Special issue on Software Modeling and Meta-Modeling. 6(2): 271-306, 2012.

23. W. Eric Wong, Vidroha Debroy, Dianxiang Xu. Towards Better Fault Localization: A Crosstab-based Statistical Approach, *IEEE Transactions on Systems, Man, and Cybernetics--Part C: Applications and Reviews*. Vol. 42, no. 3, pp. 378-396, 2012.

24. Dianxiang Xu, Omar El Ariss, Weifeng Xu, Linzhang Wang. Testing Aspect-Oriented Programs with Finite State Machines, *Journal of Software Testing, Verification and Reliability*, 22: 267-293, 2012.

25. Omar El Ariss, Dianxiang Xu, and W. Eric Wong. Integrating Safety Analysis with Functional Modeling, *IEEE Transactions on Systems, Man, and Cybernetics--Part A: Systems and Humans*, Vol. 41, No. 4, pp. 610-624, July 2011.

26. Jun Kong, Dianxiang Xu, and Xiaoqin Zeng. UML-based Modeling and Analysis of Security Threats. *International Journal of Software Engineering and Knowledge Engineering*, 20(6): 875-897, Sept. 2010.

27. Dianxiang Xu, Omar El Ariss, Weifeng Xu, Linzhang Wang, Aspect-Oriented Modeling and Verification with Finite State Machines, *Journal of Computer Science and Technology*, 24(5): 949-961, Sept. 2009.

28. Dianxiang Xu, Weifeng Xu and W. Eric Wong, Automated Test Code Generation from Class State Models, *International Journal of Software Engineering and Knowledge Engineering*, 19(4): 599-623, June 2009.

29. Jun Kong, Kang Zhang, Jing Dong, and Dianxiang Xu, Specifying Behavioral Semantics of UML Diagrams Through Graph Transformations, *Journal of Systems and Software*, 82(2): 292-306 (2009).

30. Dianxiang Xu, Weifeng Xu, and W. Eric Wong, Testing Aspect-Oriented Programs with UML Design Models, *International Journal of Software Engineering and Knowledge Engineering*, Vol. 18, No. 3, pp. 413-437, May 2008.

31. Dianxiang Xu, Vivek Goel, Kendall Nygard, and W. Eric Wong. Aspect-Oriented Specification of Threat-Driven Security Requirements, *International Journal of Computer Applications in Technology*, *Special Issue on Concern Oriented Software Evolution*, Vol. 31, Nos. 1/2, pp. 131-140, 2008.

32. Martin C. Lundell, Dianxiang Xu, Denver Tolliver, and Kendall E. Nygard. A Multi-Agent Design for Sense and Respond Logistics Simulation, *World Review of Intermodal Transportation Research*, Vol. 1, No. 4, pp. 459-471, 2007.

33. Junhua Ding, Dianxiang Xu, Yi Deng, Peter J. Clarke, Xudong He. A Formal Model-Based Approach for Developing an Interoperable Mobile Agent System. *Multi-Agent and Grid Systems: An International Journal*. *Special issue on Agent-oriented Software Development Methodologies*. Volume 2, Number 4, pp. 401-412, 2006.

34. Dianxiang Xu and Josh Pauli. Threat-Driven Design and Analysis of Secure Software Architectures. *Journal of Information Assurance and Security*, Vol.1, No.3, pp. 171-180, 2006.

35. Dianxiang Xu and Kendall E. Nygard. Threat-Driven Modeling and Verification of Secure Software Using Aspect-Oriented Petri Nets. *IEEE Transactions on Software Engineering*. Vol. 32, No. 4, pp. 265-278, April 2006.

36. Dianxiang Xu, Richard A. Volz, Michael S. Miller, and Jesse Plymale. Knowledge-Based Human-Agent Teamwork for Distributed Training. *International Journal of Intelligent Control and Systems*. Vol. 11, No. 1, pp. 1-10, March 2006.

37. Junhua Ding, Dianxiang Xu, Xudong He, and Yi Deng. Modeling and Analyzing a Mobile Agent-based Clinical Information System. *International Journal of Intelligent Control and Systems*. Vol. 10, No. 2, pp. 143-151, June 2005.

38. Sen Cao, Richard. A. Volz, Jamison Johnson, Maitreyi Nanjanath, Jonathan Whetzel, and Dianxiang Xu, Development of a Distributed Multi-Player Computer Game for Scientific Experiment of Team-Training Protocols, *The Electronic Library – The Int. J. for the Applications of Technology in Information Environments*, Vol. 22 No. 1, pp. 43-54, 2004.

39. Dianxiang Xu, Richard A. Volz, Thomas R. Ioerger, and John Yen, Modeling and Analyzing Multi-Agent Behaviors Using Predicate/Transition Nets, *International Journal of Software Engineering and Knowledge Engineering*, Vol. 13, No. 1, pp.103-124, February 2003.

40. Dianxiang Xu, Jianwen Yin, Yi Deng, and Junhua Ding, A Formal Architectural Model for Logical Agent Mobility, *IEEE Transactions on Software Engineering*, Vol.29, No.1, pp. 31-45, 2003.

41. Dianxiang Xu, Xudong He, and Yi Deng, Compositional Schedulability Analysis of Real Time Systems Using Time Petri Nets, *IEEE Transactions on Software Engineering*, vol.28, no.10, pp. 984-996, October 2002.

42. Xiaocong Fan, Dianxiang Xu, Jianmin Hou, and Guoliang Zheng, Reasoning about Concurrent Actions in Multi-Agent Systems, *Journal of Computer Science and Technology*, vol.14, no.4, pp. 422-428, July 1999.

43. Dianxiang Xu, Guoliang Zheng, and Xiaocong Fan, A Logic Based Language for Networked Agents, *Information and Software Technology*, vol.40, no.8, pp. 435-442, August 1998.

44. Dianxiang Xu, Towards an Object-Oriented Logic Framework for Knowledge Based Systems, *Knowledge Based Systems*, vol.10, no.6, pp. 351-358, April 1998.

45. Dianxiang Xu and Guoliang Zheng, Towards a Declarative Semantics of Inheritance with Exceptions, *Journal of Computer Science and Technology*, Vol.11, No.1, pp. 61-71, 1996.

46. Jingui Pan, Shifu Chen, Dianxiang Xu, and Zhaoqian Chen, A Framework for Intelligent Decision Support System, *Chinese Journal of Advanced Software Research (In English)*, vol.2, no.1, pp. 21-27, March 1995.

47. Dianxiang Xu, Jingui Pan, Shifu Chen, and Zhaoqian Chen, A Knowledge Based Model Description Language, *Chinese Journal of Advanced Software Research (In English)*, vol.1, no.4, pp. 391-396, December 1994.

Conference/Workshop Papers

48. Yu Luo, Weifeng Xu and Dianxiang Xu, Predicting Code Vulnerability Types via Heterogeneous GNN Learning. *Proc. of the 29th European Symposium on Research in Computer Security (ESORICS'24)*, Poland, September 2024.

49. Yu Luo, Weifeng Xu, Karl Andersson, Mohammad Shahadat Hossain, Dianxiang Xu. FELLMVP: An Ensemble LLM Framework for Classifying Smart Contract Vulnerabilities. *Proc. of the 7th IEEE Conference on Blockchain (Blockchain'24)*, Denmark, August 2024.

50. Irfan Ali Khan, Yu Luo, Weifeng Xu, and Dianxiang Xu. GNN-Based Transfer Learning and Tuning for Detecting Code Vulnerabilities across Different Programming Languages. *The 24th International Conference on Software Quality, Reliability and Security Companion (QRS'2024)*. UK, July 2024.

51. Vladislav Dubrovenski, Md Nazmul Karim, Erzhuo Chen, Dianxiang Xu. Dynamic Access Control with Administrative Obligations: A Case Study, *IEEE 23rd International Conference on Software Quality, Reliability and Security Companion (QRS-C 2023)*, Workshop paper, October 2023.

52. Erzhuo Chen, Vladislav Dubrovenski, Dianxiang Xu. Coverage-Based Testing of Obligations in NGAC Systems. *Proc. of the 28th ACM Symposium on Access Control Models and Technologies (SACMAT'23)*, pp.169-179. June 2023.

53. Vladislav Dubrovenski, Erzhuo Chen, Dianxiang Xu. SMT-Based Verification of NGAC Policies, *Proc. of the IEEE 47th Annual Computers, Software, and Applications Conference (COMPSAC'23)*, July 2023.

54. Yu Luo, Weifeng Xu and Dianxiang Xu, Compact Abstract Graphs for Detecting Code Vulnerability with GNN Models, *Proc. of the Annual Computer Security Applications Conference (ACSAC'22)*, pp. 497-507, December 2022.

55. Weifeng Xu and Dianxiang Xu. Visualizing and Reasoning about Presentable Digital Forensic Evidence with Knowledge Graphs. *Proc. of the 19th IEEE Conference on Privacy, Security and Trust (PST'22)*, pp. 1-10, Fredericton, Canada, August 2022.

56. Weifeng Xu, Lin Deng and Dianxiang Xu. Towards Designing Shared Digital Forensics Instructional Materials. *Proc. of the IEEE 46th Annual Computers, Software, and Applications Conference (COMPSAC'22)*, pp. 117-122, July 2022.

57. Dianxiang Xu, Roshan Shrestha, Yunpeng Zhang, and Ning Shen. Towards a Theory on Testing XACML Policies, *Proc. of the 27th ACM Symposium on Access Control Models and Technologies (SACMAT'22)*, pp. 103-114, June 2022. https://doi.org/10.1145/3532105.3535031

58. Yu Luo, Weifeng Xu, and Dianxiang Xu, Detecting Integer Overflow Errors in Java Source Code via Machine Learning, *Proc. of the 33rd IEEE International Conference on Tools with Artificial Intelligence (ICTAI'2021)*, pp. 724-728, November 2021.

59. Anthony Luo and Dianxiang Xu, Quantifying Event Impact on the Bitcoin Blockchain, *Proc. of the 2021 IEEE Computers, Software, and Applications Conference (COMPSAC'21),* pp. 268-273, July 2021.

60. Erzhuo Chen, Vladislav Dubrovenski, Dianxiang Xu. Mutation Analysis of NGAC Policies. *Proc. of the 26h ACM Symposium on Access Control Models and Technologies (SACMAT'21)*, pp.71-82, June 2021.

61. Samer Khamaiseh, Edoardo Serra, and Dianxiang Xu, vSwitchGuard: Defending OpenFlow Switches against Saturation Attacks. *Proc. of the 2020 IEEE Computers, Software, and Applications Conference (COMPSAC'2020)*, pp. 851-860.

62. Dianxiang Xu, Roshan Shrestha, Ning Shen. Automated Strong Mutation Testing of XACML Policies, *Proc. of the 25th ACM Symposium on Access Control Models and Technologies (SACMAT'20)*, pp. 105-116, June 2020.

63. Abdulrahman Alatawi, Weifeng Xu and Dianxiang Xu. A Bigram-based Inference Model for Retrieving Abbreviated Phrases in Source Code. *Proc. of the International Conference on Evaluation and Assessment in Software Engineering (EASE)*. pp. 11-20. April 2020.

64. Samer Khamaiseh, Edoardo Serra, Zhiyuan Li, Dianxiang Xu, Detecting Saturation Attacks in SDN via Machine Learning, *Proc. of the 4th IEEE International Conference on Computing, Communications and Security (ICCCS 2019)*, pp.1-8, Rome, Italy, October 2019. **Runner Up for the Best Paper Award.**

65. Patrick Chapman, Dianxiang Xu, Lin Deng, and Yin Xiong. Deviant: A Mutation Testing Tool for Solidity Smart Contracts, *Proc. of the 2nd IEEE International Conference on Blockchain (Blockchain-2019)*, pp. 319-324, Atlanta, USA, July 2019.

66. Yan Wu, Anthony Luo, Dianxiang Xu, Forensic Analysis of Bitcoin Transactions*, Proc. of the 2019 IEEE Conference on Intelligence and Security Informatics (ISI'19)*, Shenzhen, China, July 2019.

67. Zhiyuan Li, Weijia Xing and Dianxiang Xu, Detecting Saturation Attacks in Software-Defined Networks, *Proc. of the 2018 IEEE Conference on Intelligence and Security Informatics (ISI'18)*, pp. 163-168, Miami, Florida, November 2018.

68. Dianxiang Xu, Roshan Shrestha, Ning Shen. Automated Coverage-Based Testing of XACML Policies, *Proc. of the 23rd ACM Symposium on Access Control Models and Technologies (SACMAT'18)*, pp. 3-14, Indianapolis, USA, June 2018. **Best Paper Award.**

69. Samer Khamaiseh, Patrick Chapman, Dianxiang Xu. Model-Based Testing of Obligatory ABAC Systems, *Proc. of the 18th International Conference on Software Quality, Reliability and Security (QRS'18)*, pp. 405-413, Lisbon, Portugal. July 2018.

70. Roshan Shrestha, Shuai Peng, Turner Lehmbecker, Dianxiang Xu, XPA: An Open-Source IDE for XACML Policies, *Proc. of the 30th International Conference on Software Engineering and Knowledge Engineering (SEKE'18)*, San Francisco Bay, July 2018.

71. Yan Wu, Nitish Dhakal, Dianxiang Xu, Jin-Hee Cho. Analysis and Prediction of Endorsement-based Skill Assessment in LinkedIn. *Proc. of the 42nd IEEE Computer Software and Applications Conference (COMPSAC'18)*, pp. 461-470, Tokyo, Japan, July 2018.

72. Donald Winiecki, Noah Salzman, Timothy Andersen, Amit Jain, Dianxiang Xu, Infusing Inclusion, Diversity, and Social Justice into the Undergraduate Computer Science Curriculum at Boise State University. *2018 CoNECD - The Collaborative Network for Engineering and Computing Diversity Conference*, Crystal City, Virginia. April 2018.

73. Abdulrahman Alatawi, Weifeng Xu, Dianxiang Xu. Bayesian Unigram-Based Inference for Expanding Abbreviations in Source Code. *Proc. of the 29th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'17)*, pp. 543-550, Boston, MA, November 2017.

74. Samer Khamaiseh and Dianxiang Xu, Software Security Testing via Misuse Case Modeling, *Proc. of the 15th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC'17)*, Orlando, Florida, November 2017.

75. Nitish Dhakal, Francesca Spezzano, Dianxiang Xu. Predicting Friendship Strength for Privacy Preserving: A Case Study on Facebook. *International Symposium on Foundations of Open Source Intelligence and Security Informatics (FOSINT-SI'17)*, in conjunction with IEEE/ACM International Conference on Social Networks Analysis and Mining (ASONAM 2017), Sydney, Australia, 2017.

76. Weifeng Xu, Dianxiang Xu, Lin Deng. Measurement of Source Code Readability Using Word Concreteness and Memory Retention of Variable Names. *Proc. of the 41st IEEE Computer Software and Applications Conference (COMPSAC'17)*, pp. 33-38, Torino, Italy, July 2017.

77. Weifeng Xu, Dianxiang Xu, Omar El Ariss, Yunkai Liu, Abdulrahman Alatawi. Ultra-Large-Scale Analysis of Unigrams Collected from Source Code Repository. *Proc. of the Third IEEE International Conference on Multimedia Big Data (BigMM'2017)*, pp. 1-8, Laguna Hills, California, USA, April 2017.

78. Izzat Alsmadi, Samer Khamaiseh, Dianxiang Xu. Network Parallelization in HPC Clusters. *The 2016 International Conference on Computational Science and Computational Intelligence (CSCI'16), Symposium of Parallel and Distributed Computing and Computational Science CSCI-ISPD)*, pp. 584-589. December 15-17, 2016, Las Vegas, USA.

79. Dianxiang Xu and Shuai Peng. Towards Automatic Repair of Access Control Policies. *Proc. of the 14th IEEE Conference on Privacy, Security and Trust (PST'16)*, pp. 485-492, Auckland, New Zealand, December 2016.

80. Jin-Hee Cho, Izzat Alsmadi, Dianxiang Xu. Privacy and Social Capital in Online Social Networks, *IEEE GLOBECOM'16*, pp. 1-7, Washington, DC, USA, December 2016.

81. Sung-Ju Fan Chiang, Daniel Chen and Dianxiang Xu. Conformance Testing of Balana: An Open Source Implementation of the XACML3.0 Standard. *Proc. of the 28th International Conference on Software Engineering and Knowledge Engineering (SEKE'16)*, San Francisco Bay, July 2016.

82. Dianxiang Xu, Zhenyu Wang, Shuai Peng, Ning Shen. Automated Fault Localization of XACML Policies, *Proc. of the 21st ACM Symposium on Access Control Models and Technologies (SACMAT'16)*, pp. 137-147, Shanghai, China, June 2016.

83. Izzat Alsmadi, Dianxiang Xu and Jin-Hee Cho. Interaction-Based Reputation Model in Online Social Networks, *Proc. of the 2nd International Conference on Information Systems Security and Privacy (ICISSP'16)*, pp. 265-272, Short paper. Feb. 2016, Rome, Italy.

84. Dianxiang Xu, Yunpeng Zhang, Ning Shen. Formalizing Semantic Differences between Combining Algorithms in XACML 3.0 Policies, *Proc. of the 2015 International Conference on Software Quality, Reliability and Security (QRS'15)*, pp. 163-172. Vancouver, Canada. August 2015. **Honorable Recognition of Paper**.

85. Dianxiang Xu, Ning Shen, Yunpeng Zhang. Fault-Based Testing of Combining Algorithms in XACML3.0 Policies. *Proc. of the 27th International Conf. on Software Engineering and Knowledge Engineering (SEKE'15)*, Pittsburg, July 2015.

86. Izzat Alsmadi, Milson Munakami, Dianxiang Xu. Model-Based Testing of SDN Firewalls: A Case Study, *Proc. of the second International Conference on Trustworthy Systems and Their Applications (TSA'15)*, pp. 81-88, Taiwan, July 2015.

87. Dianxiang Xu, Weifeng Xu, and Manghui Tu. Automated Generation of Integration Test Sequences from Logical Contracts, *Proc. of the 6th IEEE International Workshop on Software Test Automation (STA'14)*, in conjunction with COMPSAC 2014, Sweden, July 2014.

88. Dianxiang Xu, Ning Shen. Effectiveness of Automated Function Testing with Petri Nets: A Series of Controlled Experiments. *Proc. of the 26th International Conf. on Software Engineering and Knowledge Engineering (SEKE'14)*, Vancouver, July 2014.

89. Weifeng Xu, Tao Ding, Dianxiang Xu. Rule-based Test Input Generation from Bytecode, *Proc. of the 8th International Conference on Software Security and Reliability (SERE'14)*, pp. 108-117, San Francisco, CA. June 2014.

90. Dianxiang Xu, Yunpeng Zhang. Specification and Analysis of Attribute-Based Access Control Policies: An Overview. *Proc. of the International Workshop on Information Assurance*, in conjunction with SERE'14. pp. 41-49. San Francisco, CA. June 2014.

91. Sandeep Lakkaraju and Dianxiang Xu, Integrated Modeling and Analysis of Attribute based Access Control Policies and Workflows in Healthcare, *Proc. of the 1st International Conference on Trustworthy Systems and Their Applications (TSA'14)*, pp. 36-43, Taiwan, June 2014.

92. Weifeng Xu, Tao Ding, Hanling Wang, Dianxiang Xu, Mining Test Oracles for Test Inputs Generated from Java Bytecode, *Proc. of the 37th IEEE Computer Software and Applications Conference (COMPSAC'13)*, pp.27-32, Kyoto, Japan, July 2013.

93. Junhua Ding, Dianxiang Xu, Jidong Ge, An Approach for Analyzing Software Specifications in Petri Nets. *Proc. of the 25th International Conf. on Software Engineering and Knowledge Engineering (SEKE'13)*, June 2013.

94. Manghui Tu, Liangliang Xiao, Dianxiang Xu. Maximizing the Availability of Replicated Services in Widely Distributed Systems. *Proc. of the 7th IEEE International Conference on Software Security and Reliability (SERE'13)*, pp. 178-187, Washington DC, USA, June 2013.

95. Dianxiang Xu. Software Security Testing of an Online Banking System - A Unique Research Experience for Undergraduates and Computer Teachers, *Proc. of the 44th ACM Technical Symposium on Computer Science Education (SIGCSE'13)*, pp.705-710, Denver, March 2013.

96. Dianxiang Xu, Michael Sanford, Zhaoliang Liu, Mark Emry, Brad Brockmueller, Spencer Johnson, Michael To. Testing Access Control and Obligation Policies, *Proc. of the 2013 International Conference on Computing, Networking and Communications (ICNC'13)*, pp. 540-544, San Diego, January 2013.

97. Manghui Tu, Dianxiang Xu. System Resilience Modeling and Enhancement for the Cloud, *Proc. of the 2013 International Conference on Computing, Networking and Communications (ICNC'13)*, pp.1021-1025, San Diego, January 2013.

98. Dianxiang Xu and William Chu. A Methodology for Building Effective Test Models with Function Nets. *Proc. of the 36th IEEE Computer Software and Applications Conference (COMPSAC'12)*, pp. 334-339, Izmir, Turkey, July 2012.

99. Dianxiang Xu and Janghwan Tae. Automated Generation of Concurrent Test Code from Function Nets. *Proc. of the 24th International Conf. on Software Engineering and Knowledge Engineering (SEKE'12)*, pp. 346-351. San Francisco, July 2012.

100. Junhua Ding and Dianxiang Xu. Model-Based Metamorphic Testing: A Case Study. *Proc. of the 24th International Conf. on Software Engineering and Knowledge Engineering (SEKE'12)*, pp. 363-368, San Francisco, July 2012.

101. Dianxiang Xu, Lijo Thomas, Michael Kent, Tejeddine Mouelhi, and Yves Le Traon. A Model-Based Approach to Automated Testing of Access Control Policies. *Proc. of the 17th ACM Symposium on Access Control Models and Technologies (SACMAT'12)*, pp. 209-218, Newark, USA, June 2012.

102. Dianxiang Xu, Weifeng Xu, Bharath K Bavikati, and Eric W. Wong. Mining Executable Specifications of Web Applications from Selenium IDE Tests. *Proc. of the Sixth IEEE International*

Conference on Software Security and Reliability (SERE'12), pp. 263-272, Washington DC, USA, June 2012.

103. Michael Tu, Dianxiang Xu, Zhonghang Xia, Logan Smith. Securing Epidemic based Update Protocol for P2P Systems. *Proc. of the 23rd IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS'11).* Dallas, USA, December. 2011. Best Paper Award.

104. Michael Tu, Dianxiang Xu, Zhonghang Xia, Jicheng Fu. Modeling and Computing Reach Availability of Replicated Data or Service in Distributed Environments, *Proc. of the 35th IEEE Computer Software and Applications Conference (COMPSAC'11),* pp. 688-693, Munich, Germany, July 2011.

105. Lijo Thomas, Weifeng Xu, Dianxiang Xu. Mutation Analysis of Magento for Evaluating Threat Model-Based Security Testing, *Proc. of the 3rd IEEE International Workshop on Software Test Automation (STA'11), pp. 184-189.* in conjunction with COMPSAC 2011, Munich, Germany, July 2011.

106. Michael Sanford, Daniel Woodraska, Dianxiang Xu. Security Analysis of FileZilla Server Using Threat Models. *Proc. of the 23rd International Conf. on Software Engineering and Knowledge Engineering (SEKE'11)*, pp. 678-682, Miami, July 2011.

107. Omar El Ariss, Jianfei Wu, Dianxiang Xu. Towards an Enhanced Design Level Security Integrating Attack Trees with Statecharts, *Proc. of the 5th IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI''11)*, pp. 1-10. Jeju Island, South Korea, June 2011.

108. Dianxiang Xu, A Tool for Automated Test Code Generation from High-Level Petri Nets, *Proc. of the 32nd International Conference on Application and Theory of Petri Nets and Concurrency (Petri Nets 2011)*, LNCS 6709, pp. 308–317, Newcastle Upon TYNE, UK, June 2011. Springer-Verlag Berlin Heidelberg.

109. Omar El Ariss, Dianxiang Xu. Modeling Security Attacks with Statecharts, *Proc. of the 2nd International ACM SigSoft Symposium on Architecting Critical Systems (ISARCS 2011)*, pp. 123-132, Federated with CompArch 2011, Boulder, Colorado, USA, June 2011.

110. Junhua Ding, Tong Wu, Dianxiang Xu, Jun Q. Lu, Xin-Hua Hu. Metamorphic Testing of a Monte Carlo Modeling Program, *Sixth International Workshop on the Automation of Software Test (AST'11)*, in conjunction with ICSE'11, Honoulu, Hawaii, May 2011.

111. Daniel Woodraska, Michael Sanford, Dianxiang Xu, Security Mutation Testing of the FileZilla FTP Server, *Proc. of the 26th ACM Symposium on Applied Computing (SAC'11)*, Software Engineering Track, Taiwan, March 2011.

112. Yong Wang, Dianxiang Xu, William M Lively, Dick B. Simmons. A Stochastic Model for Optimizing the Patching Time of Software Bugs, *Proc. of the 22nd International Conf. on Software Engineering and Knowledge Engineering (SEKE'10)*, San Francisco Bay, July 2010.

113. Dianxiang Xu and Junhua Ding, Prioritizing State-Based Aspect Tests, *Proc. of the Third International Conference on Software Testing, Verification, and Validation (ICST'10)*, pp.265-274, Paris, France, April 2010. Invited for journal submission.

114. Omar El Ariss, Dianxiang Xu, Santosh Dandey, Brad Vender, Phil McClean, and Brian Slator, A Systematic Capture and Replay Strategy for Testing Complex GUI based Java Applications, *Proc. of the 7th International Conference on Information Technology: New Generations (ITNG '10)* , Las Vegas, USA, April 2010.

115. Jianfei Wu, Anne Denton, Omar El Ariss, and Dianxiang Xu, Mining for Core Patterns in Stock Market Data, *The Third International Workshop Mining Multiple Information Sources (MMIS'09)*, In conjunction with ICDM 2009, Miami, USA, December 2009.

116. Sathish Pinagapani, Dianxiang Xu, and Jun Kong, A Comparative Study of Access Control Languages, *Proc. of the 3rd IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI'09),* pp. 407-412, Shanghai, China, July 2009.

117. Aaron Marback, Hyunsook Do, Ke He, Samuel Kondamarri, Dianxiang Xu, Security Test Generation using Threat Trees, *Fourth International Workshop on the Automation of Software Test (AST'09)*, in conjunction with ICSE'09, Vancouver, Canada, May 2009.

118. Weifeng Xu and Dianxiang Xu, Automated Evaluation of Runtime Object States Against Model-Level States for State-Based Test Execution, *The 5th Workshop on Advances in Model Based Testing (A-MOST'09)*, in conjunction with ICST'09, Denver, Colorado, USA, April 2009.

119. Zhanqi Cui, Linzhang Wang, Xuandong Li, and Dianxiang Xu. Modeling and Integrating Aspects with UML Activity Diagrams, *Proc. of the 24th ACM Symposium on Applied Computing (SAC'09)*, Software Engineering Track, pp. 430-437, Hawaii, USA, March 2009.

120. Omar El-Ariss, Dianxiang Xu, W. Eric Wong, Yuting Chen, and Yann-Hang Lee. A Systematic Approach for Integrating Fault Trees into System Statecharts, *Proc. of the 32nd IEEE Computer Software and Applications Conference (COMPSAC 2008)*, pp. 120-123, Turku, Finland, July 2008.

121. Jun Kong and Dianxiang Xu. A UML-based Framework for Design and Analysis of Secure Software, *Proc. of the 32nd IEEE Computer Software and Applications Conference (COMPSAC 2008)*, pp. 28-31, Turku, Finland, July 2008.

122. Kendall E. Nygard, Dianxiang Xu, Jonathan Pikalek, and Martin Lundell, Multi-agent Designs for Ambient Systems, *Proc. of the First International Conference on Ambient Media and Systems (Ambi-sys'08)*, Quebec City, Canada, Feb. 2008.

123. Dianxiang Xu, Weifeng Xu, and W. Eric Wong. Automated Test Code Generation from UML Protocol State Machines, *Proc. of the 19th International Conference on Software Engineering and Knowledge Engineering (SEKE'07)*, pp. 99-104, Boston, July 2007. Invited for journal submission.

124. Dianxiang Xu, Izzat Alsmadi, and Weifeng Xu, Model Checking Aspect-Oriented Design Specification, *Proc. of the 31st IEEE International Computer Software and Applications Conference (COMPSAC'07)*, Vol. 1. pp. 491-500, Beijing, July 2007.

125. Linzhang Wang, W. Eric Wong, and Dianxiang Xu. A Threat Model Driven Approach for Security Testing, *The 3rd International Workshop on Software Engineering for Secure Systems (SESS07)*, in conjunction with ICSE'07, Minneapolis. May 2007.

126. Dianxiang Xu and Xudong He. Generation of Test Requirements from Aspectual Use Cases. *Proc. of the Third Workshop on Testing of Aspect-Oriented Programs (WTAOP'07)*. In conjunction with AOSD'07, pp. 17-22, Vancouver, Canada, March 2007.

127. Dianxiang Xu, Vivek Goel, and Kendall Nygard. An Aspect-Oriented Approach to Security Requirements Analysis. *Proc. of the 30th IEEE International Computer Software and Applications Conference (COMPSAC'06)*, pp. 79-82, Chicago, Sept. 2006.

128. Josh Pauli and Dianxiang Xu. Integrating Functional and Security Requirements with Use Case Decomposition. *Proc. of the 11th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS'06)*, pp. 57-66, USA, August 2006.

129. Weifeng Xu and Dianxiang Xu. State-Based Testing of Integration Aspects. *Second Workshop on Testing of Aspect-Oriented Programs (WTAOP'06)*. In conjunction with ISSTA'06, pp. 7-14, July 2006.

130. Josh Pauli and Dianxiang Xu. Ensuring Consistent Use/Misuse Case Decomposition for Secure Systems. *Proc. of the 18th International Conference on Software Engineering and Knowledge Engineering (SEKE'06)*, pp. 392-397, CA., USA, July 2006.

131. Dianxiang Xu and Weifeng Xu. State-Based Incremental Testing of Aspect-Oriented Programs. *Proc. of the 5th International Conference on Aspect-Oriented Software Development (AOSD'06),* pp. 180-189. Bonn, Germany. ACM Press, March 2006.

132. Dianxiang Xu and Kendall Nygard. A Threat-Driven Approach to Modeling and Verifying Secure Software. *Proc. of the 20th IEEE/ACM International Conference on Automated Software Engineering (ASE'05)*, pp. 342-346. California, USA. ACM Press, November 2005.

133. Josh Pauli and Dianxiang Xu. Threat-Driven Architectural Design of Secure Information Systems. *Proc. of the 7th International Conference of Enterprise Information Systems (ICEIS'05)*, pp. 136-143, Miami, May 2005.

134. Dianxiang Xu, Weifeng Xu, and Kendall Nygard. A State-Based Approach to Testing Aspect-Oriented Programs. *Proc. of the 17th International Conference on Software Engineering and Knowledge Engineering (SEKE'05),* pp. 366-371, Taiwan, July 2005.

135. Junhua Ding, Dianxiang Xu, Yi Deng, Peter J. Clarke, Xudong He. Design an Interoperable Mobile Agent System Based on Predicate Transition Net Models. *Proc. of the 17th International Conference on Software Engineering and Knowledge Engineering (SEKE'05),* pp. 560-565, Taiwan, July 2005.

136. Josh Pauli and Dianxiang Xu. Trade-off Analysis of Misuse Case-based Secure Software Architectures: A Case Study. *Proc. of the 3rd International Workshop on Modeling, Simulation, Verification and Validation of Enterprise Information Systems (MSVVEIS'05),* pp. 89-95, Miami, May 2005.

137. Wu-Jun Li, Chong-Jun Wang, Dian-Xiang Xu, Bin Luo, and Zhao-Qian Chen. A Study on Illumination Invariant Face Recognition Methods Based on Multiple Eigenspaces. *Proc. of ISNN'05,* LNCS 3497, China, May 2005.

138. Dianxiang Xu and Vivek Goel. An Aspect-Oriented Approach to Mobile Agent Access Control. *Proc. of the 2005 International Conference on Information Technology: Coding and Computing (ITCC'05),* Vol. I, pp. 668-673. IEEE Computer Society, Las Vegas, April 2005.

139. Josh Pauli and Dianxiang Xu. Misuse Case-Based Design and Analysis of Secure Software Architecture. *Proc. of the 2005 International Conference on Information Technology: Coding and Computing (ITCC'05),* Vol. II, pp. 398-403, IEEE Computer Society, Las Vegas, April 2005.

140. Weifeng Xu and Dianxiang Xu. A Model-Based Approach to Test Generation for Aspect-Oriented Programs. *First Workshop on Testing Aspect-Oriented Programs (WTAOP'05),* in conjunction with *AOSD'05,* Chicago, March 2005.

141. Wujun Li, Chongjun Wang, Dianxiang Xu, and Shifu Chen. Illumination Invariant Face Recognition Based on Neural Network Ensemble. *Proc. of the 16th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'04),* pp.486-490, IEEE Computer Society, Florida, Nov. 2004.

142. Dianxiang Xu, Priti Borse, Ken Grigsby, and Kendall. E. Nygard. A Petri Net Based Software Architecture for UAV Simulation. *Proc. of the International Conference on Software Engineering Research and Practice (SERP04).* vol. 1, pp. 227-232, Las Vegas, USA, June 2004. CSREA Press, ISBN 1-932415-28-9.

143. Dianxiang Xu, Richard A. Volz, Michael S. Miller, and Jesse Plymale. Human-Agent Teamwork for Distributed Team Training. *Proc. of the 15th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'03),* pp. 602-607, IEEE Computer Society, Sacramento, November 2003.

144. Sen Cao, Richard. A. Volz, Jamison Johnson, Maitreyi Nanjanath, Jonathan Whetzel, and Dianxiang Xu, Development of a Distributed Multi-Player Computer Game for Scientific Experiment of Team-Training Protocols, *Proc. of the 2nd International Conference on Application and Development of Computer Games (ADCOG'03),* Hong Kong, January 2003.

145. Dianxiang Xu, Richard A. Volz, Thomas R. Ioerger, and John Yen, Modeling and Verifying Multi-Agent Behaviors Using Predicate/Transition Nets, *Proc. of the 14th International Conference on Software Engineering and Knowledge Engineering (SEKE'02),* pp. 193-200, Italy, July 2002.

146. John Yen, Jianwen Yin, Thomas R. Ioerger, Michael S. Miller, Dianxiang Xu, and Richard A. Volz, CAST: Collaborative Agents for Simulating Teamwork, *Proc. of the 17th International Joint Conference on Artificial Intelligence (IJCAI'01),* pp. 1135-1142, Seattle, August 2001.

147. Dianxiang Xu and Yi Deng, Modeling Mobile Agent Systems with High Level Petri Nets, *Proc. of the IEEE International Conference on Systems, Man, and Cybernetics (SMC'00),* pp. 3177-3182, Nashville, October 2000.

148. Xiaocong Fan, Dianxiang Xu, and Guoliang Zheng, Reasoning about Inheritance and Cloning Behaviors of Software Agents. *Proc. of the International Conference on Technology of Object-Oriented Languages and Systems (TOOLS31),* pp. 77-82, China, Sept. 1999.

149. Xiaocong Fan, Dianxiang Xu, and Guoliang Zheng, Some Formal Proposals for Team Tracking, *Proc. of the International Conference on Computational Intelligence and Multimedia Applications (ICCIMA'98)*, pp. 228-234, World Scientific Publisher, Australia, 1998.

150. Dianxiang Xu and Guoliang Zheng, Typed Logic Objects with Non-monotonic Inheritance. *Proc. of the 9th International Conference on Software Engineering and Knowledge Engineering (SEKE'97)*, pp. 472-478, Madrid, Spain, June 1997.

151. Xiaocong Fan, Dianxiang Xu, and Guoliang Zheng, Reasoning about Team Tracking, *Proc. of the International Symposium of New Technology on Computer Software for Young Chinese Scholars (NTCS/W-97)*, pp. 179-184, International Academic Publishers, China, September 1997.

152. Dianxiang Xu and Guoliang Zheng, A Declarative Semantics for Negative Rules, *Proc. of the 1995 Pacific-Asian Conference on Expert Systems (PACES'95)*, pp.139-142, China, May 1995.

153. Shifu Chen and Dianxiang Xu, A Knowledge Based Model Description Language for Decision Support, *Proc. of the 6th International Conference on Tools with Artificial Intelligence (ICTAI'94)*, pp. 696-699, IEEE Computer Society Press, New Orleans, USA, Nov. 1994.

154. Dianxiang Xu, Jingui Pan, and Guoliang Zheng, A Hybrid Knowledge Representation Based on Logical Objects, *Proc. of the Second IEEE International Conference on Expert Systems for Development*, pp. 153-158, IEEE Computer Society Press, March 1994.

155. Xu Dianxiang and Chen Shifu, NUIDSST: A Development Tool for Decision Support Systems, *Proc. of the IFAC Workshop on Expert Systems in Agriculture*, pp. 92-95, International Academic Publishers, August 1992.

156. Pan Jingui, Xu Dianxiang, and Chen Shifu, The Expert System of the Neotectonic Control of the Karst Fissure Water Resources and Its Applications in Agriculture, *Proc. of the IFAC Workshop on Expert Systems in Agriculture*, pp. 145-147, International Academic Publishers, August 1992.

Book Chapters

157. Omar El Ariss and Dianxiang Xu. System Modeling with UML State Machines. *Handbook on Finite State Based Models and Applications*, J. Wang et al. (Eds.), CRC Press, 2012.

158. Dianxiang Xu, Software Security, *Wiley Encyclopedia of Computer Science and Engineering*, B. W. Wah (Editor-In-Chief), Volume 5, pages 2703-2716, John Wiley & Sons, Inc., Hoboken, NJ, January 2009.

AWARDS AND HONORS

- Runner Up for the Best Paper Award. 4th IEEE International Conference on Computing, Communications and Security (ICCCS 2019).

- Best Paper Award, ACM Symposium on Access Control Models and Technologies (SACMAT'18)

- Honorable Recognition of Paper, International Conference on Software Quality, Reliability and Security (QRS'15)

- The second-class award for scientific and technological progress by the Education Ministry of China. 1998

- The third-class award for scientific and technological progress by the government of Jiangsu Province, China. 1996.

- The award for the remarkable achievements in science and technology invention and innovation by National Bureau in China, Technological Information Promotion System, United Nations. 1994

- The academic research award for outstanding young faculty by Nanjing University. 1996, 1997, 1998.

PROFESSIONAL ACTIVITIES AND SERVICES

Professional Societies

- Senior member, IEEE

Editor

- Co-Editor-in-Chief, International Journal of Performability Engineering (January-December 2016)
- Guest Editors of Journal Special Issues: International Journal of Software Engineering and Knowledge Engineering, Software Quality Journal, Advances in Software Engineering

Referee

- ACM TISSEC, IEEE TSE, IEEE TC, IEEE TDSC, IEEE TR, IEEE TKDE, IEEE TSC, IEEE TSMC-A, IEEE TSMC-C, Journal of Software Testing, Verification and Reliability, Journal of Systems and Software, Information and Software Technology, International Journal of Software Engineering and Knowledge Engineering, Software Quality Journal, Software and Systems Modeling, Software: Practice and Experience, Transactions on Aspect-Oriented Software Development, International Journal of Security and Networks

Conference/Workshop Program Committee

- 2023: QRS (program co-chair of the Workshop on Blockchain and Smart Contracts), COMPSAC (co-chair of SEPT symposium), Blockchain
- 2022: QRS, program co-chair of the Workshop on Blockchain and Smart Contracts
- 2021: QRS (program co-chair of the Workshop on Blockchain and Smart Contracts), COMPSAC (co-chair of SEPT symposium)
- 2020: COMPSAC (co-chair of SEPT symposium), QRS
- 2019: COMPSAC (program co-chair of SEPT symposium), SEKE, QRS, AST
- 2018: COMPSAC (program co-chair of SEPT symposium), SEKE, QRS, AST
- 2017: COMPSAC (Steering Committee), QRS, SEKE, DSA, ICSOFT
- 2016: COMPSAC (program co-chair of SEPT symposium), SEKE, QRS
- 2015: COMPSAC (program co-chair of SEPT symposium), ACM SAC (SE track), SEKE, QRS, AST
- 2014: SACMAT, COMPSAC (Co-Chair of the Quality Assurance and Assessment track), ACM SAC (SE track), SEKE, SERE, AST
- 2013: SACMAT, COMPSAC (Co-Chair of the Formal Methods track), ACM SAC (SE track), SEKE, SERE, AST
- 2012: COMPSAC (Co-Chair of the Formal Methods track), AST (Program Co-chair), ACM SAC (SE track), SEKE, SERE
- 2011: COMPSAC, SSIRI, ACM SAC (SE track), AST
- 2010: COMPSAC, SSIRI (Program Co-Chair), GIC, ACM SAC (SE Track), AST
- 2009: COMPSAC, ACM SAC (SE Track), QSIC, SSIRI, AST
- 2008: COMPSAC, ACM SAC (SE and ME Tracks), QSIC, SSIRI, AST, TASE, MSVVEIS, ICNSC
- 2007: COMPSAC, SMC, ACM SAC SE Track, QSIC, WTAOP (Co-Chair), AST, MSVVEIS,