

Haiping Xu

Professor and Chairperson
 Computer and Information Science Department
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A. Contact Information

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B. Research Interests and Expertise

- Software Engineering, Distributed Computing, Formal Methods
- Cybersecurity, Software Security and Reliability, Blockchain
- Cloud Computing, Cloud Security, Privacy and Reliability
- Text & Data Mining, Deep Learning, Statistical Learning
- Multi-Agent System, Electronic Commerce, Online Auction

C. Education and Experience

Ph.D.	Computer Science	University of Illinois at Chicago	2003
M.S.	Computer Science	Wright State University	1998
M.S.	Computer Engineering	Zhejiang University	1992
B.S.	Electrical Engineering	Zhejiang University	1989

- **Department Chairperson**, Computer and Information Science Department, University of Massachusetts Dartmouth, July 2018 ~ Present.
- **Graduate Program Director (GPD)**, Computer and Information Science Department, University of Massachusetts Dartmouth, January 2018 ~ January 2019.
- **Professor (tenured)**, Computer and Information Science Department, University of Massachusetts Dartmouth, 2019 ~ Present.
- **Associate Professor (tenured)**, Computer and Information Science Department, University of Massachusetts Dartmouth, 2009 ~ 2019.
- **Assistant Professor**, Computer and Information Science Department, University of Massachusetts Dartmouth, 2003 ~ 2009.
- **Director**, Concurrent Software Engineering Laboratory, Computer and Information Science Department, University of Massachusetts Dartmouth, 2004 ~ Present.
- **Research Assistant**, Concurrent Software Systems Laboratory, Computer Science Department, University of Illinois at Chicago, 1998 ~ 2003.
- **Research Assistant**, Parallel Computing Laboratory, Wright State University, 1996 ~ 1998.
- **Research Scholar**, Intelligent Systems Laboratory, Nanyang Technological University (Singapore), 1996.
- **Software Engineer**, Hewlett-Packard Company (China), 1995 ~ 1996.
- **Software Engineer**, Shen-Yan Systems Technology Inc. (China), 1992 ~ 1995.

D. Honorary Society Membership and Awards

1. **Senior Member** of the Association of Computing Machinery (ACM), Promoted in 2009 (ACM Professional Member since 2002)
2. **Senior Member** of the Institute of Electrical and Electronics Engineers (IEEE), Promoted in 2007 (IEEE Member since 1997)
3. IEEE *Editorial Excellence and Eminence Award* for outstanding contributions as an Associate Editor of the IEEE Transactions on Cloud Computing, December 2019.
4. IEEE *Excellent and Valuable Service* as Program Chair of the 2017 IEEE International Conference on Smart City Innovations, August 2017.
5. IEEE *Excellent and Valuable Service* as Program Chair of the 5th IEEE International Conference on Mobile Cloud Computing, Service and Engineering, April 2017.
6. Recognition of *Dedicated Leadership* as Program Chair of the 27th International Conference on Software Engineering and Knowledge Engineering, July 2015.
7. Best Paper Award at SEKE 2015, Pittsburgh, USA, July 2015.
8. Who's Who Among America's Teachers, 11th Edition, 2007.
9. Marquis Who'sWho in Finance and Business, 37th Edition, 2009-2010.
10. Marquis Who'sWho in America, 62nd Edition, 2008, and 63rd Edition, 2009.
11. Outstanding Ph.D. Thesis Award, University of Illinois at Chicago, IL, 2004.
12. University Fellowship, University of Illinois, Chicago, IL, 2001.
13. Dayton Area Graduate Studies Institute (DAGSI) Scholarship, Dayton, OH, 1998.
14. Outstanding Graduate Student Award, Zhejiang University, China, 1992.
15. Guang-Hua National Merit Scholarship, Hangzhou, China, 1990.
16. Graduate School Scholarship, Zhejiang University, Hangzhou, China, 1990.
17. The "Mixed Class" for talented students, Zhejiang University, Hangzhou, China, 1986.
18. Zhejiang University Juvenile Class for Gifted Students (aged 15 or below), China, 1985.

E. Contribution to Teaching, Curriculum Development, and University Services (UMass Dartmouth)

Teaching and Curriculum Development

- Co-developed Artificial Intelligence Minor (CSAI-MN), AY 2020-21.
- Co-developed Concentration in Artificial Intelligence (CISAI), AY 2020-21.
- Developed Cybersecurity Concentration for Computer Science majors (CYBRCS), AY 2019-20.
- Developed Computer Science Cybersecurity Minor (CYCS-MN), AY 2019-20.
- Co-developed Concentration in Computer Game Design (CISGD), AY 2019-20.
- Reviewed and approved nine (9) newly proposed cybersecurity courses, AY 2019-20.
- Participated in preparing the "CD Area of Study" section in the application for Center for Academic Excellence in Cyber Defense Research (CAE CD-R), AY 2019-20.
- Participated in developing MSCS Online Preparatory Program (OPP), Spring 2015.
- Participated in developing Data Science Interdisciplinary Program, Fall 2014.
- Participated in developing MSCS Online Graduate Program (OGP), Fall 2014.
- Developed Software Engineering Certificate for MS in CS program, Fall 2013.
- Developed new course CIS 461 (Formal Methods for Software Engineering), Fall 2012.
- Developed Software Engineering Option for BS in CS program, Spring 2017 (with Dr. Jan Bergandy, Dr. Paul Bergstein, and Dr. Boleslaw Mikolajczak).
- Proposed new course CIS 461 (Formal Methods for Software Engineering), Spring 2007.
- Proposed new course CIS 264 (Software Quality Assurance and Testing), Spring 2007.
- Developed new course CIS 582 (Advanced Software Engineering), Spring 2006.
- Developed new course CIS 602 (Special Topics: Software Eng. of Distributed Systems), Fall 2004.
- Co-developed new course CIS 563 (Multi-Agent Systems), Spring 2005.

University Services

- **Chair**, Ph.D. in Computer Science and Information Systems Committee, Ph.D. in EAS (2013 ~ Present)
- EAS Advising/Admissions/Curriculum Committee (AACC) (2013 ~ Present)
- **Chair**, CIS Lab Committee, Computer and Information Science Department (2013 ~ Present)
- ABET and Program Assessment Committee (PAC), CIS Department (2018 ~ Present)
- College Academic Council, College of Engineering (2013 ~ 2020)
- Academic Quality Assessment and Development (AQAD) Committee, CIS Department (2018 ~ 2019)
- **Chair**, Administrative Assistant Search and Screen Committee, CIS Department (2018 ~ 2019)
- **Graduate Program Director (GPD)**, CIS Graduate Curriculum Committee (GCC) (2018 ~ 2019)
- **Chair**, CIS Undergraduate Curriculum Committee (UCC) (2015 ~ 2018)
- College Curriculum Committee, College of Engineering (2015 ~ 2018)
- **Graduate Program Advisor**, CIS Graduate Curriculum Committee (GCC) (2015 ~ 2020)
- Software Engineering Full-Time Lecturer Search and Screen Committee (2021 ~ 2022)
- Data Analytics Tenure-Track Faculty Search and Screen Committee (2019 ~ 2020)
- Cybersecurity Full-Time Lecturer Search and Screen Committee (2019 ~ 2020)
- Cybersecurity Tenure-Track Faculty Search and Screen Committee (2018 ~ 2019)
- Software Engineering Tenure-Track Faculty Search and Screen Committee (2018 ~ 2019)
- **Chair**, Data Science Tenure-Track Faculty Search and Screen Committee, CoE (2015 ~ 2016)
- Data Science Tenure-Track Faculty Search and Screen Committee, College of Engineering (2014 ~ 2015)
- Fulltime Lecturer Search and Screen Committee, College of Engineering (Summer 2014)
- Big Data Tenure-Track Faculty Search and Screen Committee, College of Engineering (2013 ~ 2014)
- Tenure-Track Faculty Search and Screen Committee, College of Engineering (2011 ~ 2012)
- Ph.D. Program Exploratory Committee, College of Engineering (2009 ~ 2010)
- Tenure-Track Faculty Search and Screen Committee, College of Engineering (2009 ~ 2010)
- CIS Undergraduate Curriculum Committee (UCC) (2003 ~ 2018)
- CIS Graduate Curriculum Committee (GCC) (2003 ~ 2018)
- MATH Competition Planning Committee (2011 ~ 2012)
- Faculty Senate Committees: Admissions Committee (2008 ~ 2011)
- Faculty Senate Committees: Library Committee (2004 ~ 2007)

See Appendix E-1 for teaching workload.

F. Graduate Students Supervised

At UMass Dartmouth, I supervised 25 MS Theses (23 completed), and 72 MS Projects (71 completed). I also supervised / co-supervised 5 Ph.D. Dissertations (3 completed). See Appendix F-1 and F-2 for details.

G. Grant Activities

1. Co-PI: Haiping Xu, **2020 University Industry Collaborative Seed Fund**, "Reducing the Cost of Data in Large-Scale Data-Driven Learning," Collaborative Research with Donghui Yan (PI) and Ming Shao (Co-PI), Industry Partner: DiDi Research America, March 2020 - March 2021.
2. PI: Haiping Xu, **2017 Creative Economy Fund**, "Popularity of Cultural Products in Online Social Media," Collaborative Research with University of Massachusetts Boston (PIs: Jurui Zhang and Raymond Liu), July 2017 - June 2018.
3. PI: Haiping Xu, Provost Travel Grant, International Conference on Software Engineering and Knowledge, July 2015.
4. PI: Haiping Xu, **NSF Grant**, "CT-ISG: Agent-Based Trust Management for Trust Re-Evaluation in Online Auctions," Collaborative Research with UIC, August 2007 ~ July 2010.
5. PI: Haiping Xu, Co-PI: Ramprasad Bala, **Marine Corps Grant**, "Ontology-Based Dynamic Service Discovery for Fault-Tolerant Service-Oriented Systems," May 2008 ~ October 2008.

6. PI: Haiping Xu, Chancellor's Research/UMass Healey Endowment Grants, "State-Based XML Firewall for Service-Oriented Systems," July 2007 ~ June 2008.
7. PI: Haiping Xu, Research Seed Initiative Fund (RSIF), "Agent-Based Trustworthy Service-Oriented Architecture," July 2007 ~ June 2008.
8. PI: Haiping Xu, Chancellor's Research/UMass Healey Endowment Grants, "A Trustworthy Agent Based Online Auction System," July 2006 ~ June 2007.
9. PI: Haiping Xu, Provost Faculty Travel Grant, International Conference on Software Engineering and Knowledge Engineering, July 2007 & July 2008.
10. PI: Haiping Xu, Provost Faculty Travel Grant, International Conference on Communication, Network and Information Security, October 2006.
11. PI: Haiping Xu, Co-PI: Xiaoqin Zhang, Research Seed Initiative Fund (RSIF), "Prototyping Role-Based Large Scale, Complex Multi-Agent Applications," February 2005 ~ January 2006.
12. PI: Haiping Xu, Provost's Publication Subvention Grant, October 2005.
13. IEEE Computer Society Travel Grant, ISADS 2001.
14. ACM SIGAda Student Travel Grant, SIGAda 1999.

H. Journal Publications (*: Student Co-author)

1. Alvin Thamrin*, Haiping Xu, and Rui Ming*, "Cloud-Based Hierarchical Consortium Blockchain Networks for Timely Publication and Efficient Retrieval of Electronic Health Records," *Advances in Science, Technology and Engineering Systems Journal (ASTESJ)*, Special Issue on Multidisciplinary Sciences and Engineering, April 2022, Vol. 7, No. 2, pp. 179-190.
2. Donghui Yan, Zhiwei Qin, Songxiang Gu, Haiping Xu, and Ming Shao, "Cost-Sensitive Selection of Variables by Ensemble of Model Sequences," *Knowledge and Information Systems (KAIS)*, May 2021, Vol. 63, No. 5, pp. 1069-1092.
3. Lexin Zhou, Haiping Xu, and Ye Li, "A Novel Online Mechanism for Honest Bilateral Bidding Strategies on Ridesharing Platforms," *Chinese Journal of Management Science (CJMS)*, Vol. 28, No. 3, March 2020, pp. 201-212.
4. Haiping Xu, Yuhan Zhang*, and Richard de Groof*, "A Feature-Based Sentence Model for Evaluation of Similar Online Products," *Journal of Electronic Commerce Research (JECR)*, Vol. 19, No. 4, November 2018, pp. 320-335
5. Haiping Xu and Deepti Bhalerao*, "Reliable and Secure Distributed Cloud Data Storage Using Reed-Solomon Codes," *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 25, Nos. 9 & 10, December 2015, pp. 1611-1632.
6. Jean Rahme* and Haiping Xu, "A Software Reliability Model for Cloud-Based Software Rejuvenation Using Dynamic Fault Trees," *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 25, Nos. 9 & 10, December 2015, pp. 1491-1514.
7. Haiping Xu, "Future Research Directions of Software Engineering and Knowledge Engineering," *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 25, No. 2, 2015, pp. 415-421.
8. Daniel F. Fitch* and Haiping Xu, "A RAID-Based Secure and Fault-Tolerant Model for Cloud Information Storage," *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 23, No. 5, 2013, pp. 1-28.
9. Benjamin J. Ford*, Haiping Xu, and Iren Valova, "A Real-Time Self-Adaptive Classifier for Identifying Suspicious Bidders in Online Auctions," *The Computer Journal (COMPJ)*, Vol. 56, No. 5, 2013, pp. 646-663.
10. Haiping Xu, Abhinay Reddyreddy*, and Daniel F. Fitch*, "Defending Against XML-Based Attacks Using State-Based XML Firewall," *Journal of Computers (JCP)*, Vol. 6, No. 11, November 2011, pp. 2395-2407.
11. Fei Dong*, Sol M. Shatz, Haiping Xu, and Dibyen Majumdar, "Price Comparison: A Reliable Approach to Identifying Shill Bidding in Online Auctions?" *Electronic Commerce Research and Applications (ECRA)*, Vol. 11, No. 2, March-April 2012, pp. 171-179.

12. Ryan Robidoux*, [Haiping Xu](#), Liudong Xing, and MengChu Zhou, "Automated Modeling of Dynamic Reliability Block Diagrams Using Colored Petri Nets," *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans (TSMCA)*, Vol. 40, No. 2, March 2010, pp. 337-351.
13. Fei Dong*, Sol M. Shatz, and [Haiping Xu](#), "Reasoning Under Uncertainty for Skill Detection in Online Auctions Using Dempster-Shafer Theory," *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 20, No. 7, November 2010, pp. 943-973.
14. Benjamin J. Ford*, [Haiping Xu](#), Christopher K. Bates*, and Sol M. Shatz, "Visual Specification of Layered Bidding Strategies for Autonomous Bidding Agents," *Journal of Computers (JCP)*, Vol. 5, No. 6, June 2010, pp. 940-950.
15. [Haiping Xu](#), Liudong Xing, and Ryan Robidoux*, "DRBD: Dynamic Reliability Block Diagrams for System Reliability Modeling," *International Journal of Computers and Applications (IJCA)*, Vol. 31, No. 2, 2009, pp. 132-141.
16. Fei Dong*, Sol M. Shatz, and [Haiping Xu](#), "Combating Online In-Auction Fraud: Clues, Techniques and Challenges," *Computer Science Review (CSR)*, Vol. 3, No. 4, November 2009, pp. 245-258.
17. [Haiping Xu](#), Mihir Ayachit*, and Abhinay Reddyreddy*, "Formal Modeling and Analysis of XML Firewall for Service-Oriented Systems," *International Journal of Security and Networks (IJSN)*, Vol. 3, No. 3, 2008, pp. 147-160.
18. Zhenhua*, Yu, Yuanli Cai, and [Haiping Xu](#), "Petri Nets Semantics of π -calculus," *Frontiers of Electrical and Electronic Engineering in China (FEEEC)*, September 2008, Vol. 3, No. 3, pp. 290-294.
19. [Haiping Xu](#) and Yi-Tsung Cheng*, "Model Checking Bidding Behaviors in Internet Concurrent Auctions," *International Journal of Computer Systems Science & Engineering (IJCSSE)*, July 2007, Vol. 22, No. 4, pp. 179-191.
20. Zhenhua Yu*, Yuanli Cai, and [Haiping Xu](#), "Modeling and Analyzing Multi-Agent Systems Based on π -net," *Systems Engineering - Theory & Practice (SETP)*, July 2007, Vol. 27, No. 7, pp. 77-84 (in Chinese).
21. Zhenhua Yu*, Yuanli Cai, and [Haiping Xu](#), "On Petri Nets Semantics for π -calculus," *Journal of Control and Decision (JCD)*, August 2007, Vol. 22, No. 8, pp. 864-868 (in Chinese).
22. [Haiping Xu](#), Xiaoqin Zhang, and Rinkesh J. Patel*, "Developing Role-Based Open Multi-Agent Software Systems," *International Journal of Computational Intelligence Theory and Practice (IJCITP)*, June 2007, Vol. 2, No. 1, pp. 39-56.
23. Xiaoqin Zhang, [Haiping Xu](#), and Bhavesh Shrestha*, "An Integrated Role-Based Approach for Modeling, Designing and Implementing Multi-Agent Systems," *Journal of the Brazilian Computer Society (JBSC), Special Issue on Software Engineering for Multi-Agent Systems*, July 2007, Vol. 13, No. 2, pp. 45-60.
24. Zhenhua Yu*, Yuanli Cai, and [Haiping Xu](#), "On Modeling Approach for Dynamic Software Architecture," *Journal of Xi'an Jiaotong University (JXJU)*, February 2007, Vol. 41, No. 2, pp. 167-171 (in Chinese).
25. [Haiping Xu](#), Zhiguo Zhang, and Sol M. Shatz, "A Security Based Model for Mobile Agent Software Systems," *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, August 2005, Vol. 15, No. 4, pp. 719-746.
26. [Haiping Xu](#) and Sol M. Shatz, "ADK: An Agent Development Kit Based on a Formal Model for Multi-Agent Systems," *Journal of Automated Software Engineering (AUSE)*, October 2003, Vol. 10, No. 4, pp. 337-365.
27. [Haiping Xu](#) and Sol M. Shatz, "A Framework for Model-Based Design of Agent-Oriented Software," *IEEE Transactions on Software Engineering (IEEE TSE)*, January 2003, Vol. 29, No. 1, pp. 15-30.
28. Ravi K. Gedela, Sol M. Shatz, and [Haiping Xu](#), "Compositional Petri Net Models of Advanced Tasking in Ada-95," *Computer Languages*, July 1999, Vol. 25, No. 2, pp. 55-87.
29. Ravi K. Gedela, Sol M. Shatz, and [Haiping Xu](#), "Formal Modeling of Synchronization Methods for Concurrent Objects in Ada 95," *ACM SIGAda Ada Letters*, 1999, Volume XIX, Issue 3, pp. 211-220.
30. [Haiping Xu](#), Xiaogang Ruan, Zengwu Chen, Shangxu Hu, and Haibo Ren, "ICTS: Hypertext and Multi-Knowledge Source Based Intelligent Chinese Tutoring System," *Journal of Chinese Information Processing*, 1992, Vol. 6, No. 2, pp. 8-16 (in Chinese).

31. Qiuping Hu, [Haiping Xu](#), Yurun Zhang, and Chunhui Zhou, "Software Design of an Expert Control System in Vacuum Distillation," *Control and Instruments in Chemical Industry*, 1992, Vol. 19, No. 4, pp. 25-29 (in Chinese).
32. Xiaogang Ruan, [Haiping Xu](#), and Zengwu Chen, "Intelligent CAI and Chinese Tutoring System," *Communications of Computation and Information*, 1991, Vol. 2, No. 7, pp. 6-14 (in Chinese).
33. [Haiping Xu](#), "Software Design of Microcomputer Based Electronic Scalars," *Process Automation Instrumentation*, 1991, Vol. 12, No. 10, pp. 13-16 (in Chinese).
34. [Haiping Xu](#), "A Novel Design of Second-Generation Expert Systems," *Communications of Computation and Information*, 1990, Vol. 1, No. 6, pp. 28-33 (in Chinese).

I. Proceedings, Books, Book Chapters and Special Issues

1. Rui Ming*, [Haiping Xu](#), Shannon E. Gibbs*, Donghui Yan and Ming Shao, "A Deep Neural Network Based Approach to Building Budget-Constrained Models for Big Data Analysis," In H. R. Arabnia (Ed.), *Advances in Data Science and Information Engineering*, Springer Nature - Research Book Series, Transactions on Computational Science & Computational Intelligence, (TCSCI), 2021. Also appears in [MXG21c]
2. Josue N. Rivera* and [Haiping Xu](#), "An Educational Tool for Exploring the Pumping Lemma Property of Regular Languages," To appear in H. R. Arabnia (Ed.), *Advances in Software Engineering, Education, and e-Learning*, Springer Nature - Research Book Series, Transactions on Computational Science & Computational Intelligence (TCSCI), 2020. Also appears in [RX20c]
3. [Haiping Xu](#), Sotoudeh Hamed-Hagh, and Paolo Nesi (Eds.), *Proceedings of the 2017 IEEE International Conference on Smart City Innovations (IEEE SCI 2017)*, San Francisco, USA, August 4-8, 2017.
4. [Haiping Xu](#), Luca Foschini, and Jiannong Cao (Eds.), *Proceedings of the 5th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017)*, San Francisco, USA, April 7-9, 2017.
5. [Haiping Xu](#), (Ed.), *Featured Topic Issue: Best Papers from SEKE2015*, International Journal of Software Engineering and Knowledge Engineering (IJSEKE), Vol. 25, Nos. 9 & 10, December 2015.
6. [Haiping Xu](#) (Ed.), *Proceedings of the 27th International Conference on Software Engineering and Knowledge Engineering (SEKE 2015)*, Pittsburgh, USA, July 6-8, 2015, ISBN: 1-891706-37-3.
7. [Haiping Xu](#), Jerry Gao, Yan Bai, and George Roussos (Eds.), *Feature Topical Issue on Software Engineering and Knowledge Engineering for Mobile Cloud Computing and Services*, International Journal of Software Engineering and Knowledge Engineering (IJSEKE), Vol. 24, No. 7, September 2014.
8. [Haiping Xu](#) (Ed.), *Practical Applications of Agent-Based Technology*, InTech, March 2012, ISBN: 978-953-51-0276-2.
9. M. A. Karim Sadiq, [Haiping Xu](#), Jaroslav Zendulka, Adegboyega K. Ojo (Eds.), *Proceedings of the International Conference on Software Engineering Theory and Practice (SETP-08)*, Orlando, Florida, USA, July 7-10, 2008, ISIRST 2008, ISBN 978-1-60651-005-6.
10. Xiaoqin Zhang, [Haiping Xu](#), and Bhavesh Shrestha, "Building Health Care Multi-Agent Simulation System with Role-Based Modeling," In R. Paranjape and A. Sadanand (Eds.), *Multi-Agent Systems for Health Care Simulation and Modeling: Applications for System Improvement, Chapter VI*, IGI Global, August 2009, ISBN: 978-1605667720.

J. Conference Publications

1. Joshua Carberry* and Haiping Xu, "Fine-Grained ICD Code Assignment Using Ontology-Based Classification," Submitted to *IEEE 23rd International Conference on Information Reuse and Integration for Data Science (IEEE IRI 2022)*, August 9 -11, 2022.
2. Alvin Thamrin* and Haiping Xu, "Hierarchical Cloud-Based Consortium Blockchains for Healthcare Data Storage," In *2021 IEEE 21st International Conference on Software Quality, Reliability and Security Companion (QRS-C)*, IEEE BSC 2021, Hainan Island, China, December 6-10, 2021, pp. 644-651.

3. Alvin Thamrin* and Haiping Xu, "Cloud-Based Blockchains for Secure and Reliable Big Data Storage Service in Healthcare Systems," In *Proceedings of the 15th IEEE International Conference on Service-Oriented System Engineering (IEEE SOSE 2021)*, Oxford Brookes University, UK, August 23-26, 2021, pp. 81-89.
4. Rui Ming*, [Haiping Xu](#), Shannon E. Gibbs*, Donghui Yan and Ming Shao, "A Deep Neural Network Based Approach to Building Budget-Constrained Models for Big Data Analysis," In *Proceedings of the 17th International Conference on Data Science (ICDATA'21)*, Las Vegas, Nevada, USA, July 26-29, 2021, pp. 1-8.
5. Rui Ming* and [Haiping Xu](#), "Timely Publication of Transaction Records in a Private Blockchain," In *2020 IEEE 20th International Conference on Software Quality, Reliability and Security Companion (QRS-C)*, The IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2020), Macau, China, December 11-14, 2020, pp. 116-123.
6. Josue N. Rivera* and [Haiping Xu](#), "An Educational Tool for Exploring the Pumping Lemma Property of Regular Languages," In *Proceedings of the 16th International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS'20)*, Las Vegas, Nevada, USA, July 27-30, 2020, pp. 1-8.
7. Raymond Liu, Jurui Zhang, [Haiping Xu](#), and Richard de Groof[†], "An Empirical Study of the Impact of Online Community Engagement, Motivation, and Customer Experience on Consumer Brand Advocacy," *Research Abstract*, The Atlantic Marketing Association Conference, New Orleans, LA, USA, September 26-29, 2019.
8. Raymond Liu, Jurui Zhang, [Haiping Xu](#), and Richard de Groof[†], "An Empirical Study of Consumer Brand Advocacy in the Digital Community Environment," *Research Abstract*, 7th Annual International Colloquium on Branding, Athens, Greece, July 29-31 & August 1, 2019.
9. Richard de Groof[†], [Haiping Xu](#), Jurui Zhang, and Raymond Liu, "Mining Significant Terminologies in Online Social Media Using Parallelized LDA for the Promotion of Cultural Products," In *Proceedings of the 14th International Conference on Data Science (ICDATA'18)*, Las Vegas, Nevada, USA, July 30-August 2, 2018, pp. 3-9.
10. Richard de Groof and [Haiping Xu](#), "Automatic Topic Discovery of Online Hospital Reviews Using an Improved LDA with Variational Gibbs Sampling," In *Proceedings of the 2017 IEEE International Conference on Big Data (IEEE BigData 2017)*, Boston, MA, USA, December 11-14, 2017, pp. 3940-3947.
11. Jean Rahme and [Haiping Xu](#), "Dependable and Reliable Cloud-Based Systems Using Multiple Software Spare Components," In *Proceedings of the 14th IEEE International Conference on Advanced and Trusted Computing (IEEE ATC 2017)*, San Francisco, CA, USA, August 4-8, 2017, pp. 1462-1469.
12. [Haiping Xu](#) and Amol Gade, "Smart Real Estate Assessments Using Structured Deep Neural Networks," In *Proceedings of the 2017 IEEE International Conference on Smart City Innovations (IEEE SCI 2017)*, San Francisco, CA, USA, August 4-8, 2017, pp. 1126-1132.
13. Jean Rahme and [Haiping Xu](#), "Preventive Maintenance for Cloud-Based Software Systems Subject to Non-Constant Failure Rates," In *Proceedings of the 14th IEEE International Conference on Advanced and Trusted Computing (IEEE ATC 2017)*, San Francisco, CA, USA, August 4-8, 2017, pp. 1576-1581.
14. Lexin Zhou and [Haiping Xu](#), "An Efficient Double Auction Mechanism for On-Demand Transport Services in Cloud-Based Mobile Commerce," In *Proceedings of the 5th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017)*, San Francisco, CA, USA, April 6-8, 2017, pp. 25-30.
15. Yuhan Zhang and [Haiping Xu](#), "SLTM: A Sentence Level Topic Model for Analysis of Online Reviews," In *Proceedings of the 28th International Conference on Software Engineering and Knowledge Engineering (SEKE 2016)*, San Francisco, CA, USA, July 1-3, 2016, pp. 449-453.
16. [Haiping Xu](#) and Deepti Bhalerao, "A Reliable and Secure Cloud Storage Schema Using Multiple Service Providers," In *Proceedings of the 27th International Conference on Software Engineering and Knowledge Engineering (SEKE 2015)*, Pittsburgh, USA, July 6-8, 2015, pp. 116-121 (**Best Paper Award**).
17. Jean Rahme and [Haiping Xu](#), "Reliability-Based Software Rejuvenation Scheduling for Cloud-Based Systems," In *Proceedings of the 27th International Conference on Software Engineering and Knowledge Engineering (SEKE 2015)*, Pittsburgh, USA, July 6-8, 2015, pp. 298-303.

18. Haiping Xu and Arturo Li, "Two-Level Smart Search Engine Using Ontology-Based Semantic Reasoning," In *Proceedings of the 26th International Conference on Software Engineering and Knowledge Engineering (SEKE 2014)*, Vancouver, Canada, July 1-3, 2014, pp. 648-652.
19. Ran Wei and Haiping Xu, "A Formal Cost-Effectiveness Analysis Model for Product Evaluation in E-Commerce," In *Proceedings of the 25th International Conference on Software Engineering and Knowledge Engineering (SEKE 2013)*, Boston, MA, USA, June 27-29, 2013, pp. 287-293.
20. Daniel F. Fitch and Haiping Xu, "A Petri Net Model for Secure and Fault-Tolerant Cloud-Based Information Storage," In *Proceedings of the 24th International Conference on Software Engineering and Knowledge Engineering (SEKE 2012)*, San Francisco Bay, CA, USA, July 1-3, 2012, pp. 333-339.
21. Harmeet Chawla, Haiping Xu, and MengChu Zhou, "A Real-Time Reliability Model for Ontology-Based Dynamic Web Service Composition," In *Proceedings of the 23rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)*, Miami, FL, USA, July 7-9, 2011, pp. 153-158.
22. Benjamin J. Ford, Haiping Xu, and Iren Valova, "Identifying Suspicious Bidders Utilizing Hierarchical Clustering and Decision Trees," In *Proceedings of the 12th International Conference on Artificial Intelligence (ICAI'10)*, Las Vegas, Nevada, USA, July 12-15, 2010, pp. 195-201.
23. Ankit Goel, Haiping Xu, and Sol M. Shatz, "A Multi-State Bayesian Network for Skill Verification in Online Auctions," In *Proceedings of the 22nd International Conference on Software Engineering and Knowledge Engineering (SEKE'2010)*, Redwood City, San Francisco Bay, USA, July 1-3, 2010, pp. 279-285.
24. Fei Dong, Sol M. Shatz, and Haiping Xu, "An Empirical Evaluation on the Relationship Between Final Auction Price and Shilling Activity in Online Auctions," In *Proceedings of the 22nd International Conference on Software Engineering and Knowledge Engineering (SEKE'2010)*, Redwood City, San Francisco Bay, USA, July 1-3, 2010, pp. 286-291.
25. Monika Shrestha, Liudong Xing, and Haiping Xu, "Complete Sequence Generation Algorithm for Reliability Analysis of Dynamic Systems with Sequence-Dependent Failures," In *Proceedings of the 16th ISSAT International Conference on Reliability and Quality in Design (RQD'10)*, August 5-7, 2010, Washington D.C., USA, pp. 383-386.
26. Haiping Xu, Christopher K. Bates, and Sol M. Shatz, "Real-Time Model Checking for Skill Detection in Live Online Auctions," In *Proceedings of the International Conference on Software Engineering Research and Practice (SERP'09)*, July 13-16, 2009, Las Vegas, Nevada, USA, pp. 134-140.
27. Benjamin J. Ford, Haiping Xu, Christopher K. Bates, and Sol M. Shatz, "Model-Based Specification of Flexible and Complex Bidding Strategies for Agent-Based Online Auctions," In *Proceedings of the 6th International Conference on Information Technology: New Generations (ITNG 2009)*, April 27-29, 2009, Las Vegas, Nevada, USA, pp. 894-900.
28. Fei Dong, Sol M. Shatz, and Haiping Xu, "Inference of Online Auction Skills Using Dempster-Shafer Theory," In *Proceedings of the 6th International Conference on Information Technology: New Generations (ITNG 2009)*, April 27-29, 2009, Las Vegas, Nevada, USA, pp. 908-914.
29. Abhinay Reddyreddy and Haiping Xu, "Securing Service-Oriented Systems Using State-Based XML Firewall," In *Proceedings of the 20th International Conference on Software Engineering and Knowledge Engineering (SEKE'2008)*, July 1-3, 2008, Redwood City, San Francisco Bay, California, USA, pp. 512-518.
30. Haiping Xu, Sol M. Shatz, and Christopher K. Bates, "A Framework for Agent-Based Trust Management in Online Auctions," In *Proceedings of the 5th International Conference on Information Technology: New Generations (ITNG 2008)*, April 7-9, 2008, Las Vegas, Nevada, USA, pp. 149-155.
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- Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS'07)*, Las Vegas, Nevada, USA, June 25-28, 2007. pp. 290-296.
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 35. Xiaoqin Zhang and Haiping Xu, "Towards Automated Development of Multi-Agent Systems Using RADE," In *Proceedings of the 2006 International Conference on Artificial Intelligence (ICAI'06)*, June 26-29, 2006, Las Vegas, Nevada, USA, pp. 44-50.
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 37. Yi-Tsung Cheng and Haiping Xu, "A Formal Approach to Detecting Shilling Behaviors in Concurrent Online Auctions," In *Proceedings of the 8th International Conference on Enterprise Information Systems (ICEIS 2006)*, May 23-27, 2006, Paphos, Cyprus.
 38. Haiping Xu and Xiaoqin Zhang, "A Methodology for Role-Based Modeling of Open Multi-Agent Software Systems," In *Proceedings of the 7th International Conference on Enterprise Information Systems (ICEIS 2005)*, May 24-28, 2005, Miami, Florida, USA, pp. 246-253.
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 42. Ravi K. Gedela, Sol M. Shatz, and Haiping Xu, "Formal Modeling of Synchronization Methods for Concurrent Objects in Ada 95," In *Proceedings of the ACM Annual International Conference on Ada (SIGAda'99)*, October 17-21, 1999, Redondo Beach, CA, USA, pp. 211-220.
 43. Kai Warendorf, Haiping Xu, and Antoon Verhoeven, "Case-Based Instructional Planning for Learning in a Context," In *Proceedings of the Joint 1997 Pacific Asian Conference on Expert Systems and Singapore International Conference on Intelligent Systems (PACES/SPICIS 97)*, February 24-27, 1997, Singapore, pp. 354-360.
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 45. Haiping Xu, Zengwu Chen, and Shangxu Hu, "Design and Implementation Techniques for an Intelligent Chinese Tutoring System," In *Proceedings of the Second National Conference on Computer Application*, October 1991, Beijing, China, pp. 988-991 (in Chinese).

K. Paper Presented and Seminar Talks

1. Title: *A Deep Neural Network Based Approach to Building Budget-Constrained Models for Big Data Analysis*, 17th International Conference on Data Science (ICDATA'21), Las Vegas, Nevada, USA, July 26-29, 2021.
2. Title: *Timely Publication of Transaction Records in a Private Blockchain*, IEEE International Workshop on Blockchain and Smart Contracts (BSC 2020), Macau, China, December 12, 2020.
3. Title: *Smart Real Estate Assessments Using Structured Deep Neural Networks*, IEEE International Conference on Smart City Innovations (IEEE SCI 2017), San Francisco, CA, USA, August 5, 2017.

4. Title: *An Efficient Double Auction Mechanism for On-Demand Transport Services in Cloud-Based Mobile Commerce*, IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017), San Francisco, CA, USA, April 7, 2017
5. Title: *SLTM: A Sentence Level Topic Model for Analysis of Online Reviews*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2016), San Francisco, CA, USA, July 2, 2016,
6. Title: *A Reliable and Secure Cloud Storage Schema Using Multiple Service Providers*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2015), Pittsburgh, USA, July 6, 2015.
7. Invited Talk: *Future Research Directions of Software Engineering and Knowledge Engineering*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2014), Vancouver, Canada, July 2, 2014.
8. Title: *Two-Level Smart Search Engine Using Ontology-Based Semantic Reasoning*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2014), Vancouver, Canada, July 2, 2014.
9. Title: *A Formal Cost-Effectiveness Analysis Model for Product Evaluation in E-Commerce*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2013), Boston, MA, USA, June 2013.
10. Title: *A Petri Net Model for Secure and Fault-Tolerant Cloud-Based Information Storage*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2012), San Francisco Bay, CA, USA, July 2012.
11. Title: *A Real-Time Reliability Model for Ontology-Based Dynamic Web Service Composition*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2011), Miami, Florida, USA, July 2011.
12. Title: *Identifying Suspicious Bidders Utilizing Hierarchical Clustering and Decision Trees*, International Conference on Artificial Intelligence (ICAI'10), Las Vegas, Nevada, USA, July 2010.
13. Title: *A Multi-State Bayesian Network for Skill Verification in Online Auctions*, International Conference on Software Engineering and Knowledge Engineering (SEKE 2010), Redwood City, San Francisco Bay, California, USA, July 2010.
14. Title: *Trustworthy Agent-Based Online Auction Systems*, Computer Science Seminar Series, Computer and Information Science Department, University of Massachusetts Dartmouth, November 2009.
15. Title: *Real-Time Model Checking for Skill Detection in Live Online Auctions*, International Conference on Software Engineering Research and Practice (SERP'09), Las Vegas, Nevada, USA, July 2009.
16. Title: *Model-Based Specification of Complex Bidding Strategies in Agent-Based Online Auctions*, International Conference on Information Technology: New Generations (ITNG 2009), Las Vegas, Nevada, USA, April 2009.
17. Title: *SD-ROC: Service Discovery for Reliable Operations Center*, Marine Corps Project Meeting, ATMC, Fall River, MA, USA, October 2008.
18. Title: *Securing Service-Oriented Systems Using State-Based XML Firewall*, International Conference on Software Engineering and Knowledge Engineering (SEKE'2008), Redwood City, San Francisco Bay, California, USA, July 2008.
19. Title: *Ontology-Based Dynamic Service Discovery for Fault-Tolerant Service-Oriented Systems*, Marine Corps Project Meeting, ATMC, Fall River, MA, USA, June 2008.
20. Title: *A Framework for Agent-Based Trust Management in Online Auctions*, International Conference on Information Technology: New Generations (ITNG 2008), Las Vegas, Nevada, USA, April 2008.
21. Title: *Agent-Based Trust Management for Trust Re-Evaluation in Online Auctions*, NSF Project Meeting, Department of Computer Science, University of Illinois at Chicago, January 2008.
22. Title: *DRBD: Dynamic Reliability Block Diagrams for System Reliability Modeling*, International Conference on Software Engineering and Applications (SEA 2007), Cambridge, Massachusetts, USA, November 2007.
23. Title: *Trustworthy Agent-Based Online Auction Systems*, Computer Science Industrial Advisory Committee (CSIAC) Meeting, University of Massachusetts Dartmouth, USA, November 2007.

24. Title: *Real-Time Trust Management in Agent Based Online Auction Systems*, International Conference on Software Engineering and Knowledge Engineering (SEKE'07), Boston, USA, July 2007,
25. Title: *A Petri Net Based XML Firewall Security Model for Web Services Invocation*, International Conference on Communication, Network, and Information Security (CNIS 2006), MIT, Cambridge, Massachusetts, USA , October 2006.
26. Title: *A Methodology for Role-Based Modeling of Open Multi-Agent Software Systems*, Computer Science Industrial Advisory Committee (CSIAC) Meeting, University of Massachusetts Dartmouth, USA, November 2005.
27. Title: *Towards a Role-Based Agent Development Environment for Open Multi-Agent Software Systems*, CIS Seminars, Computer and Information Science Department, University of Massachusetts Dartmouth, October 2005.
28. Title: *A Methodology for Role-Based Modeling of Multi-Agent Software Systems*, International Conference on Enterprise Information Systems (ICEIS 2005), Miami, Florida, USA, May 2005.
29. Title: *A Security Based Model for Mobile Agent Software Systems*, CIS Seminars, Computer and Information Science Department, University of Massachusetts Dartmouth, April 2004.
30. Title: *A Model-Based Approach for Development of Multi-Agent Software Systems*, Computer Science Colloquium, Computer Science Department, University of Massachusetts Boston, December 2003.
31. Title: *A Model-Based Approach for Development of Multi-Agent Software Systems*, Computer Science Colloquium, School of Electrical Engineering and Computer Science, Oregon State University, May 2003.
32. Title: *A Model-Based Approach for Development of Multi-Agent Software Systems*, Computer Science Colloquium, Department of Computer Science, State University of New York, Binghamton, March 2003.
33. Title: *A Model-Based Approach for Development of Multi-Agent Software Systems*, Computer Science Colloquium, Department of Computer Science, Iowa State University, March 2003.
34. Title: *An Agent-Based Petri Net Model with Application to Seller/Buyer Design in Electronic Commerce*, The Fifth International Symposium on Autonomous Decentralized Systems (ISADS 2001), Dallas, Texas, USA, March 2001.
35. Title: *Extending G-Nets to Support Inheritance Modeling in Concurrent Object-Oriented Design*, IEEE International Conference on Systems, Man, and Cybernetics (SMC 2000), Nashville, Tennessee, USA, October 2000.
36. Title: *Formal Modeling of Synchronization Methods for Concurrent Objects in Ada 95*, The ACM Annual International Conference on Ada (SIGAda'99), Redondo Beach, CA, USA, October 1999.

L. Recent Professional Activities

Conference Chair/Co-Chair

1. **Program Chair:** IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2021)
2. **Program Chair:** IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2020)
3. **General Chair:** The 2018 IEEE Conference on Smart City Innovations (IEEE SCI 2018)
4. **General Chair:** 6th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2018)
5. **Program Chair:** The 2017 IEEE Conference on Smart City Innovations (IEEE SCI 2017)
6. **Program Chair:** 5th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017)
7. **General Chair:** 28th International Conference on Software Engineering and Knowledge Engineering (SEKE 2016).
8. **Program Chair:** 27th International Conference on Software Engineering and Knowledge Engineering (SEKE 2015).
9. Program Co-Chair: 26th International Conference on Software Engineering and Knowledge Engineering (SEKE 2014).

10. Program Co-Chair: 25th International Conference on Software Engineering and Knowledge Engineering (SEKE 2013).
11. Publicity Chair (US): IEEE International Symposium on Mobile Cloud, Computing and Service Engineering (MobileCloud 2013).
12. Publicity Chair (US): 7th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2013).
13. Program Co-Chair: 18th International Conference on Distributed Multimedia Systems (DMS 2012).
14. Publicity Co-Chair: 24th International Conference on Software Engineering and Knowledge Engineering (SEKE 2012).
15. Special Session Co-Chair: Software Assurance at the 26th International Conference on Software Engineering and Knowledge Engineering (SEKE 2014).
16. Special Session Co-Chair: Petri Nets for Software Engineering and Knowledge Engineering at the 24th International Conference on Software Engineering and Knowledge Engineering (SEKE 2012).
17. Track Co-Chair: Artificial Intelligence and Software Engineering (AISE), 8th International Conference on Bio-inspired Information and Communications Technologies (BICT 2014).
18. Track Co-Chair: Circuits and System Design, 7th International Conference on Information Technology: New Generations (ITNG 2010).
19. Program Co-Chair: International Conference on Software Engineering Theory and Practice (SETP-09)
20. Track Co-Chair: Hardware-Software Codesign, 6th International Conference on Information Technology: New Generations (ITNG 2009).
21. Program Co-Chair: International Conference on Software Engineering Theory and Practice (SETP-08)

Track Committee (E-Commerce)

1. 7th International Conference on Information Technology: New Generations (ITNG 2010)
2. 6th International Conference on Information Technology: New Generations (ITNG 2009)
3. 5th International Conference on Information Technology: New Generations (ITNG 2008)

Session Chair

1. IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2021)
2. IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2020)
3. The 2017 IEEE Conference on Smart City Innovations (IEEE SCI 2017)
4. IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017)
5. International Conference on Software Engineering and Knowledge Engineering (SEKE 2016)
6. International Conference on Software Engineering and Knowledge Engineering (SEKE 2015)
7. International Conference on Software Engineering and Knowledge Engineering (SEKE 2014)
8. International Conference on Software Engineering and Knowledge Engineering (SEKE 2013)
9. International Conference on Software Engineering and Knowledge Engineering (SEKE 2012)
10. International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)
11. International Conference on Software Engineering and Knowledge Engineering (SEKE 2010)
12. International Conference on Software Engineering Research and Practice (SERP'09)
13. International Conference on Information Technology: New Generations (ITNG 2009)
14. International Conference on Information Technology: New Generations (ITNG 2008)
15. International Conference on Software Engineering and Applications (SEA 2007)
16. International Conference on Communication, Network, and Information Security (CNIS 2006).

International Program Committee

1. IEEE 23rd International Conference on Information Reuse and Integration for Data Science (IRI 2022)
2. 42nd IEEE International Conference on Distributed Computing Systems (ICDCS 2022)
3. 34th International Conference on Software Engineering & Knowledge Engineering (SEKE 2022)
4. 3rd International Artificial Intelligence and Blockchain Conference (AIBC 2022)

5. IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2021)
6. 21st IEEE International Conference on Software Quality, Reliability, and Security (QRS 2021)
7. 33rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2021)
8. 15th IEEE International Conference on Service-Oriented System Engineering (IEEE SOSE 2021)
9. 9th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2021)
10. 2nd International Artificial Intelligence and Blockchain Conference (AIBC 2021)
11. IEEE International Workshop on Blockchain and Smart Contracts (IEEE BSC 2020)
12. 32nd International Conference on Software Engineering and Knowledge Engineering (SEKE 2020)
13. 14th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2020)
14. 8th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2020)
15. 31st International Conference on Software Engineering and Knowledge Engineering (SEKE 2019)
16. 13th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2019)
17. 7th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2019)
18. 30th International Conference on Software Engineering and Knowledge Engineering (SEKE 2018)
19. The 2nd IEEE International Conference on Smart City Innovations (IEEE SCI 2018)
20. 6th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2018)
21. 14th IEEE Conference on Advanced and Trusted Computing (IEEE ATC 2017)
22. The 2017 IEEE Conference on Smart City Innovations (IEEE SCI 2017)
23. 11th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2017)
24. 29th International Conference on Software Engineering and Knowledge Engineering (SEKE 2017)
25. International Workshop on Security, Privacy, and Digital Forensics of Mobile Cloud (SeMoCloud 2017)
26. 5th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017)
27. 14th IASTED International Conference on Software Engineering (SE 2016)
28. 10th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2016)
29. 28th International Conference on Software Engineering and Knowledge Engineering (SEKE 2016)
30. 2nd International Conference on Information Science and Security (ICISS 2015)
31. 9th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2015)
32. Workshop A2HC 2015, International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2015)
33. 27th International Conference on Software Engineering and Knowledge Engineering (SEKE 2015)
34. 8th International Conference on Bio-inspired Information and Communications Technologies (BICT 2014)
35. 26th International Conference on Software Engineering and Knowledge Engineering (SEKE 2014)
36. IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2014)
37. Workshop MASH 14, 13th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2014)
38. International Conference on Parallel and Distributed Computing and Networks (PDCN 2014)
39. 8th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2014)
40. International Conference on Information Science and Cloud Computing (ISCC 2013)
41. 2nd International Conference on Model-Driven Engineering and Software Development (MODELSWARD 2014)
42. IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2013)
43. 3rd International Conference on Logistics, Informatics and Service Science (LISS 2013)
44. 15th International Conference on Enterprise Information Systems (ICEIS 2013)
45. 28th Annual ACM Symposium on Applied Computing, SE track (SAC 2013)
46. 8th International Conference on Software Paradigm Trends (ICSOFPT-PT 2013)

47. 25th International Conference on Software Engineering and Knowledge Engineering (SEKE 2013)
48. IEEE International Symp. on Mobile Cloud, Computing and Service Engineering (MobileCloud 2013)
49. 11th International Conference on Parallel and Distributed Computing and Networks (PDCN 2013)
50. 7th IEEE International Symposium on Service-Oriented System Engineering (SOSE 2013)
51. 11th International Conference on Software Engineering (SE 2012)
52. AC 2012, International Conference on Collaborative Technologies and Systems (CTS 2012)
53. 7th International Conference on Software Paradigm Trends (ICSOFT 2012)
54. 24th International Conference on Software Engineering and Knowledge Engineering (SEKE 2012)
55. 14th International Conference on Enterprise Information Systems (ICEIS 2012)
56. 6th IEEE International Symposium on Service-Oriented System Engineering (SOSE 2011)
57. International Workshop on Service-Oriented Computing and Multi-Agent Systems (SOC-MAS 2011)
58. 15th International Conference on Software Engineering and Applications (SEA 2011)
59. 6th International Conference on Software and Data Technologies (ICSOFT 2011)
60. International Conference on Information Science and Applications (ICISA 2011)
61. AC 2011, International Conference on Collaborative Technologies and Systems (CTS 2011)
62. 1st International Conference on Logistics, Informatics and Service Science (LISS 2011)
63. 23rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)
64. 13th International Conference on Enterprise Information Systems (ICEIS 2011)
65. 14th International Conference on Software Engineering and Applications (SEA 2010)
66. 10th International Conference on Parallel and Distributed Computing and Networks (PDCN 2011)
67. IEEE International Conference on Systems, Man, and Cybernetics (SMC 2010)
68. 5th International Conference on Software and Data Technologies (ICSOFT 2010)
69. International Conference on Software Engineering Research and Practice (SERP'10)
70. International Conference on Artificial Intelligence (ICAI'10)
71. 22nd International Conference on Software Engineering and Knowledge Engineering (SEKE 2010)
72. 12th International Conference on Enterprise Information Systems (ICEIS 2010)
73. AC 2010, International Symposium on Collaborative Technologies and Systems (CTS 2010)
74. 9th International Conference on Parallel and Distributed Computing and Networks (PDCN 2010)
75. 4th International Conference on Frontier of Computer Science and Technology (FCST 2009)
76. 4th International Conference on Software and Data Technologies (ICSOFT 2009)
77. 13th International Conference on Software Engineering and Applications (SEA 2009)
78. 21st International Conference on Software Engineering and Knowledge Engineering (SEKE'2009)
79. International Conference on Software Engineering Research and Practice (SERP'09)
80. RBC 2009, International Symposium on Collaborative Technologies and Systems (CTS 2009)
81. 11th International Conference on Enterprise Information Systems (ICEIS 2009)
82. International Conference on Parallel and Distributed Computing and Networks (PDCN 2009)
83. International Conference on Software Engineering Theory and Practice (SETP-09)
84. 12th International Conference on Software Engineering and Applications (SEA 2008)
85. 10th International Conference on Enterprise Information Systems (ICEIS 2008)
86. International Conference on Software and Data Technologies (ICSOFT 2008)
87. International Conference on Enterprise Information Systems and Web Technologies (EISWT-08)
88. International Conference on Software Engineering Theory and Practice (SETP-08)
89. 11th International Conference on Software Engineering and Applications (SEA 2007)
90. International Conference on Software and Data Technologies (ICSOFT 2007)
91. International Conference on Parallel and Distributed Computing and Systems (PDCS 2007)
92. 9th International Conference on Enterprise Information Systems (ICEIS 2007)
93. International Conference on Enterprise Information Systems and Web Technologies (EISWT-07)
94. International Conference on Software and Data Technologies (ICSOFT 2006)
95. 10th International Conference on Software Engineering and Applications (SEA 2006)
96. International Conference on Communication Systems and Application (CSA 2006)
97. International Conference on Networks and Communication Systems (NCS 2006)

98. 8th International Conference on Enterprise Information Systems (ICEIS 2006)
99. International Conference on Software Engineering Research and Practice (SERP'05)
100. International Conference on Internet Computing (ICOMP'05)
101. 7th International Conference on Enterprise Information Systems (ICEIS 2005)

Journal Editorial Boards:

1. IEEE Transactions on Cloud Computing (TCC), 2014 ~ Present
2. International Journal of Software Engineering and Knowledge Engineering, 2014 ~ Present
3. Journal of Computers (JCP), 2009 ~2016
4. International Journal of Computers and Applications (IJCA), 2009 ~ 2017
5. The Open Software Engineering Journal (TOSEJ), 2008 ~ 2015
6. Journal on Mobile Communications, Networking and Applications (JMobile), 2013 ~ 2015
7. The Scientific World Journal (Computer Science), 2013 ~ 2015
8. Guest Editor: Special Issue on Software Engineering & Knowledge Engineering for Mobile Cloud Computing & Services, International Journal of Software Engineering and Knowledge Engineering (IJSEKE), 2013 ~ 2014.

Technical Committee on Software Engineering: The International Association of Science and Technology for Development (IASTED), Term 2005 ~ 2008.

Book Editor: *Practical Applications of Agent-Based Technology*, InTech, March 2012, ISBN: 978-953-51-0276-2. *Proceedings of the International Conference on Software Engineering Theory and Practice (SETP-08)*, Orlando, Florida, USA, July 7-10, 2008, ISRST 2008, ISBN 978-1-60651-005-6.

Referee for Book Proposals: Springer US, IGI Global, Routledge, Wiley

Referee for Journals

1. IEEE Transactions on Cloud Computing (IEEE TCC)
2. IEEE Transactions on Software Engineering (IEEE TSE)
3. IEEE Transactions on Parallel and Distributed Systems (IEEE TPDS)
4. IEEE Transactions on Services Computing (IEEE TSC)
5. IEEE Transactions on Knowledge and Data Engineering (IEEE TKDE)
6. IEEE Transactions on Reliability (IEEE TR)
7. IEEE Transactions on Systems, Man and Cybernetics, Part A (IEEE TSMCA)
8. IEEE Transactions on Systems, Man and Cybernetics, Part B (IEEE TSMCB)
9. IEEE Transactions on Systems, Man and Cybernetics, Part C (IEEE TSMCC)
10. IEEE Transactions on Multimedia (IEEE TMM)
11. IEEE Transactions on Industrial Informatics (IEEE TII)
12. IEEE Transactions on Dependable and Secure Computing (TDSC)
13. IEEE Access: The Multidisciplinary Open Access Journal
14. IEEE Design & Test (IEEE DT)
15. ACM Transactions on Embedded Computing Systems (ACM TECS)
16. Transactions on Computational Science (TCS)
17. International Journal of Software Engineering & Knowledge Engineering (IJSEKE)
18. Software: Practice and Experience (SPE)
19. Journal of Software Testing, Verification and Reliability (STVR)
20. Data & Knowledge Engineering Journal (DKE)
21. Science of Computer Programming (SCP)
22. International Journal of Security and Networks (IJSN)
23. IEEE Intelligent Systems (IS)
24. Journal of Supercomputing (SUPE)
25. International Journal of Modeling and Simulation (IJMS)
26. International Journal of Computers and Applications (IJCA)

27. Computers and Electrical Engineering (COMPELECENG)
28. Journal of Computers (JCP)
29. Journal of Organizational Computing and Electronic Commerce (JOCEC)
30. Electronic Commerce Research Journal (ECRJ)
31. Information Security Journal: A Global Perspective (ISJGP)
32. Security and Communication Networks (SCN)
33. The Open Software Engineering Journal (TOSEJ)
34. Frontiers of Information Technology & Electronic Engineering (FITEE)
35. Computers in Biology and Medicine (CBM)
36. Journal of Zhejiang University Science C - Computers & Electronics (ZUSC)

Referee for Conferences

1. IEEE 23rd International Conference on Information Reuse and Integration for Data Science (IRI 2022)
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13. 8th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2020)
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15. 13th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2019)
16. 7th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2019)
17. 30th International Conference on Software Engineering and Knowledge Engineering (SEKE 2018)
18. The 2nd IEEE International Conference on Smart City Innovations (IEEE SCI 2018)
19. 6th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2018)
20. 14th IEEE Conference on Advanced and Trusted Computing (IEEE ATC 2017)
21. The 2017 IEEE Conference on Smart City Innovations (IEEE SCI 2017)
22. 11th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2017)
23. 29th International Conference on Software Engineering and Knowledge Engineering (SEKE 2017)
24. International Workshop on Security, Privacy, and Digital Forensics of Mobile Cloud (SeMoCloud 2017)
25. 5th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (IEEE Mobile Cloud 2017)
26. 14th IASTED International Conference on Software Engineering (SE 2016)
27. 10th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2016)
28. 28th International Conference on Software Engineering and Knowledge Engineering (SEKE 2016)
29. 13th International Workshop on Discrete Event Systems (DES 2016)
30. 2nd International Conference on Information Science and Security (ICISS 2015)
31. 9th IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2015)
32. Workshop A2HC 2015, 13th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2015)
33. 27th International Conference on Software Engineering and Knowledge Engineering (SEKE 2015)

34. 8th International Conf. on Bio-inspired Information and Communications Technologies (BICT 2014)
35. 2014 IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2014)
36. IEEE International Symposium on Service-Oriented System Engineering (IEEE SOSE 2014)
37. 26th International Conference on Software Engineering and Knowledge Engineering (SEKE 2014)
38. Workshop MASH 14, 13th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2014)
39. International Conference on Parallel and Distributed Computing and Networks (PDCN 2014)
40. 2nd International Conference on Model-Driven Engineering and Software Development (MODELSWARD 2014)
41. International Conference on Information Science and Cloud Computing (ISCC 2013)
42. IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2013)
43. 3rd International Conference on Logistics, Informatics and Service Science (LISS 2013)
44. 15th International Conference on Enterprise Information Systems (ICEIS 2013)
45. 28th Annual ACM Symposium on Applied Computing, SE track (SAC 2013)
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49. 11th International Conference on Parallel and Distributed Computing and Networks (PDCN 2013)
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51. AC 2012, International Conference on Collaborative Technologies and Systems (CTS 2012)
52. 24th International Conference on Software Engineering and Knowledge Engineering (SEKE 2012)
53. 7th International Conference on Software Paradigm Trends (ICSOFT 2012)
54. 11th International Conference on Software Engineering (SE 2012)
55. 14th International Conference on Enterprise Information Systems (ICEIS 2012)
56. 4th International Workshop on WSN: Architectures, Deployments and Trends (WSN-ADT 2012)
57. 15th International Conference on Software Engineering and Applications (SEA 2011)
58. 6th IEEE International Symposium on Service-Oriented System Engineering (SOSE 2011)
59. 23rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)
60. 13th International Conference on Enterprise Information Systems (ICEIS 2011)
61. 6th International Conference on Software and Data Technologies (ICSOFT 2011)
62. 1st International Conference on Logistics, Informatics and Service Science (LISS 2011)
63. International Conference on Collaborative Technologies and Systems (CTS 2011)
64. International Conference on Information Science and Applications (ICISA 2011)
65. 10th International Conference on Parallel and Distributed Computing and Networks (PDCN 2011)
66. 14th International Conference on Software Engineering and Applications (SEA 2010)
67. IEEE International Conference on Systems, Man, and Cybernetics (SMC 2010)
68. 22nd International Conference on Software Engineering and Knowledge Engineering (SEKE 2010)
69. 12th International Conference on Enterprise Information Systems (ICEIS 2010)
70. 5th International Conference on Software and Data Technologies (ICSOFT 2010)
71. International Symposium on Collaborative Technologies and Systems (CTS 2010)
72. 7th International Conference on Information Technology: New Generations (ITNG 2010)
73. 9th International Conference on Parallel and Distributed Computing and Networks (PDCN 2010)
74. 13th International Conference on Software Engineering and Applications (SEA 2009)
75. 4th International Conference on Frontier of Computer Science and Technology (FCST 2009)
76. IEEE International Conference on Systems, Man, and Cybernetics (SMC 2009)
77. 4th International Conference on Software and Data Technologies (ICSOFT 2009)
78. 21st International Conference on Software Engineering and Knowledge Engineering (SEKE'2009)
79. International Symposium on Collaborative Technologies and Systems (CTS 2009)
80. 11th International Conference on Enterprise Information Systems (ICEIS 2009)
81. 6th International Conference on Information Technology: New Generations (ITNG 2009)
82. International Conference on Parallel and Distributed Computing and Networks (PDCN 2009)

83. 12th International Conference on Software Engineering and Applications (SEA 2008)
84. International Conference on Software and Data Technologies (ICSOFT 2008)
85. 10th International Conference on Enterprise Information Systems (ICEIS 2008)
86. 5th International Conference on Information Technology: New Generations (ITNG 2008)
87. 5th Asian Conference on Communication Systems and Networks (AsiaCSN 2008)
88. 4th International Conference on Advances in Computer Science and Technology (ACST 2008)
89. International Conference on Enterprise Information Systems and Web Technologies (EISWT-08)
90. International Conference on Software Engineering (SE 2008)
91. 11th International Conference on Software Engineering and Applications (SEA 2007)
92. 19th International Conference on Parallel and Distributed Computing and Systems (PDCS 2007)
93. 9th International Conference on Enterprise Information Systems (ICEIS 2007)
94. International Conference on Software and Data Technologies (ICSOFT 2007)
95. International Conference on Software Engineering Research and Practice (SERP 2007)
96. International Conference on Enterprise Information Systems and Web Technologies (EISWT-07)
97. 3rd International Conference on Advances in Computer Science and Technology (ACST 2007)
98. 10th International Conference on Software Engineering and Applications (SEA 2006)
99. International Conference on Software and Data Technologies (ICSOFT 2006)
100. International Conference on Communication Systems and Application (CSA 2006)
101. European Internet and Multimedia Systems and Applications (EuroIMSA 2006)
102. International Conference on Networks and Communication Systems (NCS 2006)
103. 8th International Conference on Enterprise Information Systems (ICEIS 2006)
104. 7th International Conference on Enterprise Information Systems (ICEIS 2005)
105. 23rd IEEE International Conference on Distributed Computing Systems (ICDCS 2003)
106. 21st International Conference on Distributed Computing Systems (ICDCS-21)
107. 24th International Conference on Application and Theory of Petri Nets (ICATPN 2002)

Appendix E-1: Teaching Workload

List of UMD courses taught in each semester between 2003-2022

Semester	Course Number and Title	Enrollment
Spring 2022	CIS 481 - Parallel & Distributed Software Systems	45
Fall 2021	CIS 560: Theoretical Computer Science	33
Spring 2021	CIS 481 - Parallel & Distributed Software Systems	43
Fall 2020	CIS 560: Theoretical Computer Science	32
Spring 2020	CIS 481 - Parallel & Distributed Software Systems	49
Fall 2019	CIS 560: Theoretical Computer Science	39
Spring 2019	CIS 481 - Parallel & Distributed Software Systems	51
Fall 2018	CIS 560: Theoretical Computer Science	32
Spring 2018	CIS 361 - Models of Computation	62
Spring 2018	CIS 481 - Parallel & Distributed Software Systems	52
Fall 2017	CIS 461: Formal Methods for Software Engineering	46
Fall 2017	CIS 560: Theoretical Computer Science	43
Spring 2017	CIS 361: Models of Computation	59
Spring 2017	CIS 481: Parallel & Distributed Software Systems	45
Fall 2016	CIS 461: Formal Methods for Software Engineering	41
Fall 2016	CIS 560: Theoretical Computer Science	58
Spring 2016	CIS 361: Models of Computation	53
Spring 2016	CIS 481: Parallel & Distributed Software Systems	39
Fall 2015	CIS 461: Formal Methods for Software Engineering	34
Fall 2015	CIS 560: Theoretical Computer Science	60
Spring 2015	CIS 361: Models of Computation	50
Spring 2015	CIS 481: Parallel & Distributed Software Systems	51
Fall 2014	CIS 461: Formal Methods for Software Engineering	36
Fall 2014	CIS 560: Theoretical Computer Science	45
Spring 2014	CIS 361: Models of Computation	39
Spring 2014	CIS 481: Parallel & Distributed Software Systems	34
Fall 2013	CIS 461: Formal Methods for Software Engineering	19
Fall 2013	CIS 560: Theoretical Computer Science	27
Spring 2013	CIS 361: Models of Computation	25
Spring 2013	CIS 481: Parallel & Distributed Software Systems	24
Fall 2012	CIS 461: Formal Methods for Software Engineering	21
Fall 2012	CIS 560: Theoretical Computer Science	20
Spring 2012	CIS 361: Models of Computation	21
Spring 2012	CIS 481: Parallel & Distributed Software Systems	25
Fall 2011	CIS 560: Theoretical Computer Science	30
Fall 2011	CIS 582: Advanced Software Engineering	29
Spring 2010	CIS 361: Models of Computation	23
Spring 2010	CIS 481: Parallel & Distributed Software Systems	24
Fall 2009	CIS 360: Algorithms and Data Structures	32
Fall 2009	CIS 560: Theoretical Computer Science	30
Spring 2009	CIS 481: Parallel & Distributed Software Systems	17
Spring 2009	CIS 582: Advanced Software Engineering	22
Fall 2008	CIS 181: Object-Oriented Programming II	22
Fall 2008	CIS 560: Theoretical Computer Science	33

Spring 2008	CIS 481: Parallel & Distributed Software Systems	23
Spring 2008	CIS 582: Advanced Software Engineering	16
Fall 2007	CIS 560: Theoretical Computer Science	18
Spring 2007	CIS 481: Parallel & Distributed Software Systems	31
Spring 2007	CIS 582: Advanced Software Engineering	40
Fall 2006	CIS 181: Object-Oriented Programming II	8
Fall 2006	CIS 560: Theoretical Computer Science	36
Spring 2006	CIS 181: Object-Oriented Programming II	34
Spring 2006	CIS 582: Advanced Software Engineering	29
Fall 2005	CIS 181: Object-Oriented Programming II	9
Fall 2005	CIS 560: Theoretical Computer Science	42
Spring 2005	CIS 181: Object-Oriented Programming II	19
Spring 2005	CIS 361: Models of Computation	25
Spring 2005	CIS 563: Multi-Agent Systems	6
Fall 2004	CIS 560: Theoretical Computer Science	20
Fall 2004	CIS 602: Special Topics: Software Engineering of Distributed Systems	12
Spring 2004	CIS 181: Object-Oriented Programming II	27
Fall 2003	CIS 602: Special Topics: Advanced Software Engineering	20

Appendix F-1. Graduate Students Supervised

Master's Thesis

1. Shannon Gibbs, *An Automated Approach to Optimizing the Number of Hidden Neurons in Structured Deep Neural Networks*, Master's Thesis, CIS Department, UMass Dartmouth, Spring 2021, [In Progress](#).
2. Ashok Peeta, *A Multi-Layered Data Security and Confidentiality Mechanism for Cloud Data Storage*, Master's Thesis, CIS Department, UMass Dartmouth, Spring 2021, [In Progress](#).
3. Rui Ming, *A Deep Learning Approach to Building Budget-Constrained Models for Big Data Analytics*, Master's Thesis, CIS Department, UMass Dartmouth, March 4, 2022.
4. Alvin Thamrin, *Hierarchical Cloud-Based Consortium Blockchains for Secure and Reliable Big Data Storage Service in Healthcare Systems*, Master's Thesis, CIS Department, UMass Dartmouth, October 29, 2021.
5. Joshua Carberry, *Real-Time Rejuvenation Scheduling for Cloud Systems with Virtualized Software Spares*, Master's Thesis, CIS Department, UMass Dartmouth, August 16, 2021.
6. Minh Hai Ha, *Double Auction for On-Demand Transport Services Using VCG Auction Mechanism*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, January 8, 2019.
7. Vipanch Erram, *Automated Product Feature Extraction Using Recurrent Neural Networks*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, September 5, 2017.
8. Amol S. Gade, *Towards Structured Deep Neural Network for Predictive Analytics*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, April 29, 2016.
9. Yuhan Zhang, *SLTM: A Sentence Level Topic Model for Analysis of Online Product Reviews*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, September 4, 2015.
10. Deepti S. Bhalerao, *A Secure and Fault-Tolerant Data Storage Schema Using Multiple Cloud-Based Service Providers*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, May 8, 2014.
11. Chang Wei Huang, *Embedding Digital Signatures as Invisible Watermarks in Cloud-Based Critical Data*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, April 11, 2014.
12. Ameya M. Lad, *Optimal Configuration for Dynamic Composite Services in Cloud Computing*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, May 3, 2013.
13. Arturo W. Li, *Ontology-Supported Smart Search Engine for Concept-Based Query*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, May 1, 2013.
14. Ran Wei, *A Formal Cost-Effectiveness Analysis Model for Product Evaluation Using Classified Online Product Reviews*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, April 23, 2013.
15. Jean F. Rahme, *Optimal Rejuvenation Scheduling for Cloud-Based Systems Using Extended Dynamic Fault Trees*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, December 12, 2012.
16. Daniel F. Fitch, *A Petri Net Model for Secure and Fault Tolerant Cloud Based Information Storage*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, May 11, 2011.
17. Harmeet K. Chawla, *A Real-Time Reliability Model for Ontology-Based Dynamic Web Service Composition*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, May 4, 2011.
18. Benjamin J. Ford, *Data Mining Approaches for Detection of Suspicious Bidders in Online Auctions*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, August 12, 2010.
19. Ankit Goel, *A Multi-State Bayesian Network for Skill Verification in Online Auctions*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, May 28, 2010.
20. Christopher K. Bates, *Agent-Based Skill Detection in Live Online Auctions Using Real-Time Model Checking*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, September 2009.
21. Abhinay K. Reddyreddy, *Development of State-Based XML Firewall for Service-Oriented Systems*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, October 2008.
22. Ryan M. Robidoux, *Automated Verification of a Computer System Reliability Model*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, July 2007.

23. Rinkesh J. Patel, *Real-Time Trust Management in Agent-Based Online Auction Systems*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, February 2007.
24. Mihir M. Ayachit, *A Petri Net Based XML Firewall Security Model for Web Services Invocation*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, July 2006.
25. Yi-Tsung Cheng, *A Formal Approach to Detecting Shilling Behaviors in Concurrent Online Auctions*, Master's Thesis, Computer and Information Science Department, UMass Dartmouth, September 2005.

Master's Project

1. Aditya Shah, *Development of a Secure and Reliable Voting System Using Blockchain Technology*, Master's Project, CIS Department, UMass Dartmouth, In Progress.
2. Alex Sluborski, *PostureCheck: A Real-Time Posture Tracking and Assessment Tool Using Deep Neural Networks*, Master's Project, CIS Department, UMass Dartmouth, April 29, 2022.
3. Salim Laaguel, *An On-Device Deep Learning Approach to Monitoring and Detecting Fall Incidents of Elderly People*, Master's Project, CIS Department, UMass Dartmouth, May 3, 2021.
4. Vinayak Nataraj, *A Real-Time Fall Detection and Alert System for Elderly People Using Deep Neural Networks*, Master's Project, CIS Department, UMass Dartmouth, January 18, 2021.
5. Asfina Shabbir, *Using k-Means Clustering to Support Semantic Search in Emails*, Master's Project, CIS Department, UMass Dartmouth, January 2, 2021.
6. Timothy Lee, *Scalable Contact Tracking Mobile App Using Clean Architecture Principles and Microservices*, Master's Project, CIS Department, UMass Dartmouth, November 20, 2020.
7. Hely Sanjiv Parikh, *Deep Learning Based Prediction of Medical Conditions Using Radiographic Images*, Master's Project, CIS Department, UMass Dartmouth, May 18, 2020.
8. Naisargi Patel, *A Trusted and Easy-to-Use Cloud-Based User Account Management System*, Master's Project, CIS Department, UMass Dartmouth, UMass Dartmouth, May 18, 2020.
9. Rui Ming, *Secure and Reliable Storage of Personal Account Information Using Blockchain Technology*, Master's Project, CIS Department, UMass Dartmouth, August 22, 2019.
10. Alvin Thamrin, *Enhanced Blockchain Techniques Using Cloud Services for Secure and Reliable Storage of Student Records*, Master's Project, CIS Department, UMass Dartmouth, February 18, 2020.
11. Mansoor Kamthwala, *Design and Implementation of an Online JSON Editor for Dynamic Web Applications*, Master's Project, CIS Department, UMass Dartmouth, November 18, 2019.
12. Joshua LaPlante, *A Machine Learning Approach to Automated Medical Coding*, Master's Project, CIS Department, UMass Dartmouth, December 6, 2019.
13. Naoto Nicol, *A Blockchainless Approach for Trusted Public Construction Bidding*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 14, 2018.
14. Vishalkumar Limbachiya, *An Interface for Cloud-Based Records of Student Profiles Using AngularJS*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 6, 2018.
15. Rutul H. Parikh, *A Lightweight and Platform-Independent JSON Editor for Creating and Updating Data-Interchange Files*, Master's Project, Computer and Information Science Department, UMass Dartmouth, April 6, 2018.
16. Hardik Sankhla, *Prediction and Visualization of Energy Usage for Smart Cities*, Master's Project, Computer and Information Science Department, UMass Dartmouth, April 6, 2018.
17. Minh Hai Ha, *Applying the VCG Mechanism in Online Auctions for Product Bundling*, Master's Project, Computer and Information Science Department, UMass Dartmouth, February 16, 2018.
18. Yucong Cao, *An Efficient and Secure Personal Cloud Storage on Google App Engine*, Master's Project, Computer and Information Science Department, UMass Dartmouth, January 26, 2018.
19. Duc Tu Luong, *Dynamic Web Application Development with AngularJS and Webpack in a PHP Framework*, Master's Project, Computer and Information Science Department, UMass Dartmouth, November 28, 2017.

20. Dhruvil N. Patel, *Implementation of an Auction-Based On-Demand Transport Application Using iOS Programming*, Master's Project, Computer and Information Science Department, UMass Dartmouth, November 16, 2017.
21. Kuan-Lun Chen, *House Price Prediction Using a Linear Hedonic Price Regression Model*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 7, 2017.
22. Nilay S. Upadhyay, *Mobile Cloud Computing with Android Apps and Google App Engine for On-Demand Transport Services*, Master's Project, Computer and Information Science Department, UMass Dartmouth, June 30, 2017.
23. Jiahuan Li, *Deep Learning for Image Recognition Using Restricted Boltzmann Machines*, Master's Project, Computer and Information Science Department, UMass Dartmouth, June 16, 2017.
24. Vishnu Vardhan Kumar Pallati, *Bringing a Rich User Experience for Online Shopping Using Virtual Reality*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 7, 2016.
25. Vipanch Erram, *A Deep Learning Approach to Recognizing Human Activities Using Convolutional Neural Networks*, Master's Project, Computer and Information Science Department, UMass Dartmouth, August 30, 2016.
26. Vishal Sarode, *Protecting Data Security and Confidentiality Using Nonlinear Distribution of Cloud Data at Multiple Clouds*, Master's Project, Computer and Information Science Department, UMass Dartmouth, August 30, 2016.
27. Joshua Killion, *A Double Auction Based Online Cab Booking System Using McAfee's Mechanism*, Master's Project, Computer and Information Science Department, UMass Dartmouth, June 28, 2016.
28. Chien Sien Low, *LRS: A Leaf Recognition System Using Image Processing*, Master's Project, Computer and Information Science Department, UMass Dartmouth, April 29, 2016.
29. Harini Pughazhendi, *Real-Time Reliability Monitoring of a Cloud-Based System for Software Rejuvenation*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 31, 2016.
30. Yashwanth Nandanam, *Defending Against Denial-of-Service Attacks in Software Defined Networks*, Master's Project, Computer and Information Science Department, UMass Dartmouth, March 31, 2016.
31. Surya K. Juthuka, *Development of Advanced Web Applications with Modern Technologies and Workflows*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 4, 2015.
32. Amol Gade, *Feature-Based House Price Prediction Using Neural Networks*, Master's Project, Computer and Information Science Department, UMass Dartmouth, August 28, 2015.
33. Yuhan Zhang, *Rule-Based Reasoning for Price Change Prediction of Online Products in E-Commerce*, Master's Project, Computer and Information Science Department, UMass Dartmouth, October 15, 2014.
34. Kirti N. Dighe, *VCSS: a Virtual Cloud Storage Service for Multiple Cloud Service Providers*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 1, 2015.
35. Laxman K. Pothamshetti, *Enhance Secure Login to a Windows System Using Facial Recognition*, Master's Project, Computer and Information Science Department, UMass Dartmouth, June 30, 2015.
36. Safia A. Habib, *Big Data Analysis of Airline Data for Flight Delay Statistics*, Master's Project, Computer and Information Science Department, UMass Dartmouth, June 18, 2014.
37. Roni Hyam, *Implementation of a Semantic Search Engine Using Graph Database*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 4, 2015.
38. Sai Krishna Yellanki, *Estimation of Topic Coverage for Computer Science Courses Using Ontology Mapping*, Master's Project, Computer and Information Science Department, UMass Dartmouth, August 27, 2014.
39. Rahul R. Kulkarni, *Feature-Based Analysis of Product Reviews for Online Products Using Text Mining*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 5, 2014.
40. Anoop Veerepalli, *Automatic Object Identification for Cloud-Based Real-Time Map Services Used by Android Devices*, Master's Project, Computer and Information Science Department, UMass Dartmouth, April 11, 2014.
41. Deepti S. Bhalerao, *A Secure and Efficient Cloud-Based Storage System for Large Files*, Computer and Information Science Department, UMass Dartmouth, August 23, 2013.
42. Alok Gadgil, *A Cloud-Based Multimedia Information Storage and Retrieval System Using Windows Azure Platform*, Computer and Information Science Department, UMass Dartmouth, August 30, 2013.

43. Gregg J. Bois, *Prototyping an iOS-based E-Learning Application Using Mobile Cloud Computing*, Master's Project, Computer and Information Science Department, UMass Dartmouth, April 26, 2013.
44. Mayur M. Chougule, *Real-Time Map Service for Android Devices Using Mobile Cloud Computing*, Master's Project, Computer and Information Science Department, UMass Dartmouth, March 29, 2013.
45. Chang Wei Huang, *Securing Critical Data in Clouds Using Multiple Digital Signatures*, Master's Project, Computer and Information Science Department, UMass Dartmouth, October 25, 2013.
46. Ran Wei, *A Dempster-Shafer Theory Based Cost-Effectiveness Analysis Model for E-Commerce*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 12, 2012.
47. Karthik Prasad, *A Model Checking Approach to Detecting Abnormal User Behaviors in Cloud-Based Transactions*, Master's Project, Computer and Information Science Department, UMass Dartmouth, August 24, 2012.
48. Ameya M. Lad, *Multi-Attribute Based Optimal Configuration for Composite Web Services Using Linear Programming*, Master's Project, Computer and Information Science Department, UMass Dartmouth, October 19, 2012.
49. Arturo W. Li, *Prototyping an Ontology-Based Semantic UDDI for Cloud Services*, Master's Project, Computer and Information Science Department, UMass Dartmouth, March 14, 2012.
50. Ashok Peeta, *Prototyping a Reliable Cloud-Based Storage System Using Amazon Web Services*, Master's Project, Computer and Information Science Department, UMass Dartmouth, April 26, 2013.
51. Jean F. Rahme, *Modeling and Evaluating the Reliability of Web Service Applications in Cloud Computing Using Dynamic Fault Trees*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 20, 2012.
52. Daniel F. Fitch, *Simulations of Multi-Phased XML-Based Attacks and Their Defending Strategies*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 7, 2010.
53. Jerry Kuzhuppallil, *Simulating a Variation of the XML-Based Mitnick Attack*, Master's Project, Computer and Information Science Department, UMass Dartmouth, February 2010.
54. Benjamin J. Ford, *Graphical User Interface for Specifying Layered Bidding Strategies in Agent-Based Online Auctions*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2009.
55. Harmeet K. Chawla, *Ontology-Based Remote Service Registration and Discovery Using JAX-WS*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2009.
56. Amit R. Ahirrao, *Dynamic Web Service Composition Using Semantic Web*, Master's Project, Computer and Information Science Department, UMass Dartmouth, September 2009.
57. Ankit Goel, *Evaluation of a Bayesian Network with Multi-State Nodes for Shill Verification in Online Auctions*, Master's Project, Computer and Information Science Department, UMass Dartmouth, August 2008.
58. Christopher K. Bates, *Rule-Based Specification of Flexible Bidding Strategies in Agent-Based Online Auctions*, Master's Project, Computer and Information Science Department, UMass Dartmouth, January 2008.
59. Sravan K. Patti, *Implementing Ontology-Based Dynamic Service Discovery in JavaSpaces*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2007.
60. Brinda V. Kommireddi, *Developing a Dynamic Virtual Restaurant Using RMI*, Master's Project, Computer and Information Science Department, UMass Dartmouth, September 2007.
61. Abhinay K. Reddyreddy, *Simulation of XML-Based Attacks for Testing the Effectiveness of XML Firewall*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2007.
62. Rinkesh J. Patel, *A Trustworthy Agent Based Online Auction System*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2006.
63. Pratik K. Kadakia, *Building a Travel Reservation System Using Web Services Composition Language*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2006.
64. Chandana Kancherla, *A Service-Oriented Peer-to-Peer System for Resource Sharing*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2005.
65. Mihir M. Ayachit, *BOS: Book Ordering Section for University Faculty*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2005.

66. Tsung-Ta Tu, *Online Trading and Data Mining-Based Marketing of IT Books*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2004.
67. Minal G Pimparkar, *OSPS: An Office Supplies Purchasing System Using Web Services*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2004.
68. Yi-Tsung Cheng, *Information Exchange in a Multi-Agent System for Troubleshooting*, Master's Project, Computer and Information Science Department, UMass Dartmouth, May 2004.
69. Jose Manuel Valladares Pernas, *A Multi-Agent System for Electronic Auctions*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2004.
70. Ying-Chang Tseng, *Web Based Application: Online Used Bookstore - Model Design and Implementation*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2003.
71. Kuei Chih Hsu, *Web Based Application: Online Used Bookstore - View and Controller Design and Implementation*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2003.
72. Ming-Shan Hsu, *Performance Comparison of Routing Protocols in Wired and Wireless Networks*, Master's Project, Computer and Information Science Department, UMass Dartmouth, December 2003.

Ph.D. Dissertation

1. Joshua Carberry, *Ontology-Based Automated Medical Coding Using Deep Learning*, Ph.D. Dissertation, Computer and Information Science Department, UMass Dartmouth, Spring 2021, In Progress.
2. Jean F. Rahme, *A Software Reliability Model for Trusted Cloud-Based Software Systems Using Extended Dynamic Fault Tree*, Ph.D. Dissertation, Computer and Information Science Department, UMass Dartmouth, November 3, 2017 [**The first graduated PhD at the CIS Department**].
3. Richard de Groof, *Analysis of Online Product Reviews Using Text Mining*, Ph.D. Dissertation, Computer and Information Science Department, UMass Dartmouth, Spring 2019, In Progress.
4. Fei Dong, *Automated Inference of Shilling Behavior in Online Auction Systems*, Department of Computer Science, University of Illinois at Chicago, April 23, 2012, Co-advised with Dr. Sol M. Shatz.
5. Zhenhua Yu, *A Novel π -Net Based Architecture Description Language for Multi-Agent Systems*, School of Electronics and Information Engineering, Xi'an Jiaotong University, July 2007, Co-advised with Dr. Yuanli Cai.

Appendix F-2. Graduate Students Supported

1. Yi-Tsung Cheng, Faculty Startup Fund, UMass Dartmouth, Spring 2005.
2. Rinkeshkumar J. Patel, Research Seed Initiative Grant, UMass Dartmouth, Summer & Fall 2005.
3. Rinkeshkumar J. Patel, UMass Healey Endowment Grants, UMass Dartmouth, Spring & Fall 2006.
4. Pratik K. Kadakia, UMass Healey Endowment Grants, UMass Dartmouth, Fall 2006.
5. Ryan M. Robidoux, Research Seed Initiative Fund (RSIF III), UMass Dartmouth, Summer & Fall 2007.
6. Ankit Goel, NSF Grant, UMass Dartmouth, Fall 2007.
7. Abhinay K. Reddyreddy, UMass Healey Endowment Grants, UMass Dartmouth, AY 2007 - 2008.
8. Abhinay K. Reddyreddy, Marine Corps Grant, UMass Dartmouth, Summer 2008.
9. Christopher K. Bates, NSF Grant, UMass Dartmouth, AY 2007 - 2008.
10. Christopher K. Bates, Marine Corps Grant, UMass Dartmouth, Summer & Fall 2008.
11. Benjamin J. Ford, NSF Grant, UMass Dartmouth, Summer 2008 and AY 2008-2009.
12. Daniel F. Fitch, Faculty Startup Fund, UMass Dartmouth, Spring 2009.
13. Naga S. Kandala, Faculty Startup Fund, UMass Dartmouth, Summer 2009.
14. John Rahme, NSF Grant, UMass Dartmouth, Spring 2010.
15. Ashok Peeta, NSF Grant, UMass Dartmouth, Spring 2010.
16. Benjamin J. Ford, NSF Grant, UMass Dartmouth, AY 2009-2010.
17. John Rahme, First Year Doctoral Fellows, UMass Dartmouth, AY 2013-2014.
18. Richard de Groof, First Year Doctoral Fellows, UMass Dartmouth, AY 2016-2017.
19. Richard de Groof, 2017 Creative Economy Initiatives Fund, AY 2017-2018.
20. Ming Rui, 2020 University Industry Collaborative Seed Fund, Summer & Fall 2020.