

CURRICULUM VITAE**SREEDEVI SAMPATH****EDUCATION**

Ph.D.	2006	University of Delaware, Computer and Information Sciences
M.S.	2002	University of Delaware, Computer and Information Sciences
B.S.	2000	Osmania University, Computer Science and Engineering

Experience in Higher Education

2013 – present	University of Maryland, Baltimore County, Associate Professor, Information Systems Department
2006 – 2013	University of Maryland, Baltimore County, Assistant Professor, Information Systems Department
2001 – 2005	University of Delaware, Research Assistant (supervised by Dr. Pollock), Department of Computer and Information Sciences
2000 – 2001	University of Delaware, Teaching Assistant, Department of Computer and Information Sciences
2005 - 2006	and Information Sciences

Experience in Other than Higher Education

6/2005 – 8/2005	Microsoft India Development Center, India, Intern
6/2002 – 8/2002	Microsoft Research, Redmond, WA, Intern
1/2000 – 3/2000	Tata Consultancy Services, India, Project Trainee

Honors Received

2005	Lauri Pfeffer Shinn Memorial Award , Department of Computer and Information Sciences, University of Delaware
1996	Ranked among Top Ten in the Tenth Mathematical Quiz, Andhra Pradesh, India
1996	State Merit Scholarship , Cash Award given by Board of Intermediate Education, Andhra Pradesh, India

Research Support and / or Fellowships

7/2020-6/2023	\$560,541, National Science Foundation, Co-PI
7/2018-7/2021	\$330,000, Office of Naval Research, Co-PI
2/2010-2/2013	\$128,000, National Institute of Standards and Technology (NIST), “Combinatorial-based Techniques for Web Application Test Selection” P.I. share: 50%
2010	\$5000, UMBC Summer Faculty Fellowship, P.I.
2007	\$5000, UMBC Summer Faculty Fellowship, P.I.

Ph.D. Students

Ronald Perrella, 2013 – present, chair of dissertation committee. passed proposal defense.
Benjamin Houdeshell, 2016 – present, chair of dissertation committee. passed comprehensive.

Foteini Cheirdari, 2018—2019, member of dissertation committee
Yuepu Guo, 2010 – 2017, member of dissertation committee
Susan Mitchell, 2009 – 2012, member of dissertation committee
David Trimm, 2007 – 2012, member of dissertation committee
Quyín Fan, 2008 – 2010, member of dissertation committee

Joyram Chakraborty, 2006 – 2009, member of dissertation committee

Evelyn Kempe, 2021, member of comprehensive exam review panel
Abdullah Aladeej, 2018, member of comprehensive exam review panel
Alden Dima, 2018, member of comprehensive exam review panel
Eric Holtegreffe, 2018, member of comprehensive exam review panel
Anamika Paul, 2017, member of comprehensive exam review panel
Foteini Cheirdari, 2017, member of comprehensive review panel
Onimi Jademi, 2017, member of comprehensive review panel
Doa Yakut Kilic, 2016, member of comprehensive review panel
Brian Frey, 2016, member of comprehensive review panel
Sajjad Hossein, 2015, member of comprehensive review panel
Osama Rabie, 2013: member of comprehensive review panel
Zelalem Bachore, 2009: member of comprehensive review panel
Mark Pohl, 2009: member of comprehensive review panel
Chelle Davis, 2009, member of comprehensive review panel
Yuepu Guo, 2009, member of comprehensive review panel
Carlton Crabtree, 2009, member of comprehensive review panel
Lisa Vizer, 2008, member of comprehensive review panel
Huijuan(Jocelyn) Wu, 2008, member of comprehensive review panel
Tamas Gal, 2007, member of comprehensive review panel
Matt Dinmore, 2007, member of comprehensive review panel
Ryan Getek, 2007, member of comprehensive review panel
Susan Mitchell, 2006, member of comprehensive review panel

M.S. Students

Completed

Nilesh Chaturvedi, 2012 – 2013, M.S. Thesis, Chair
Mohammed Aziz Parande, 2009, M.S. Thesis Committee Member
Nitin Takshande, 2010, M.S. Thesis Committee Member

Publications (student authors underlined)

Peer-reviewed (journal proceedings)

Wenhua Wang, **Sreedevi Sampath**, Jeff Lei, Raghu Kacker, Rick Kuhn, James Lawrence, "Modeling Navigation Graphs for Dynamic Web Applications to Aid in Software Testing", Journal on Software Testing, Verification and Reliability, Wiley and Sons Ltd, Vol. 26, Issue 4, pp 318--346, June 2016.

Sreedevi Sampath, Renee Bryce, Atif Memon, "A Uniform Representation of Hybrid Criteria for Regression Testing", IEEE Transactions on Software Engineering, Vol. 39, Issue No. 10, pp 1326-1344, October 2013.

Schuyler Manchester, Renee Bryce, **Sreedevi Sampath**, Nishant Samant, Rick Kuhn, Raghu Kacker, "Applying higher-order combinatorial criteria to test case prioritization: a case study", Journal of Combinatorial Mathematics and Combinatorial Computing, JCMCC 86 (2013), pp 51-72, August 2013.

Sreedevi Sampath, Renee Bryce, "Improving the effectiveness of Test Suite Reduction for User-Session-Based Testing of Web Applications", Elsevier Information and Software Technology Journal, 54(7):724-738, July 2012.

Renee Bryce, **Sreedevi Sampath**, Jan Pederson, Schuyler Manchester, "Test Suite Prioritization by Cost-based Combinatorial Interaction Coverage", International Journal of Systems Assurance Engineering and Management (Springer), Special Issue on Advances in Software Testing, 2(2):126-134, April 2011

Renee Bryce, **Sreedevi Sampath**, Atif Memon, “Developing a Single Model and Test Prioritization Strategies for Event-driven Software”, IEEE Transactions on Software Engineering (TSE), Vol. 37, Issue no. 1, pp 48 – 64, 2011.

Sreedevi Sampath, Sara Sprenkle, Emily Gibson, Lori Pollock and Amie Souter Greenwald, "Applying Concept Analysis to User-session-based Testing of Web Applications", Transactions on Software Engineering (TSE), Vol. 33, Issue No. 10, 2007

Peer-reviewed (conference proceedings)

Brandt Braunschewig, Neha Dhage, Maria Jose Viera, Carolyn Seaman, **Sreedevi Sampath** and A. Gunes Koru, “Studying Volatility Predictors in Open Source Software”, ACM / IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), 2012 (Acceptance rate: 25%)

Sreedevi Sampath, Renee Bryce, Sachin Jain, Schuyler Manchester, “A Tool for Combinatorial-based Prioritization and Reduction of User-Session-Based Test Suites”, IEEE International Conference on Software Maintenance, Tool Demonstration Track, September 2011.

Wenhua Wang, Jeff Lei, **Sreedevi Sampath**, Raghu Kacker, Rick Kuhn, James Lawrence, “A Combinatorial Approach to Building Navigation Graphs for Dynamic Web Applications”, IEEE International conference on software maintenance (ICSM), 2009. Acceptance rate: 21%

Wenhua Wang, **Sreedevi Sampath**, Jeff Lei, Raghu Kacker, “An Interaction-Based Test Sequence Generation Strategy for Web Applications”, IEEE High Assurance Systems Engineering Symposium (HASE), December 2008. Full paper acceptance rate: 22%

Yuepu Guo, **Sreedevi Sampath**, “Web Application Fault Classification—An Exploratory Study”, Short paper at the International Symposium on Empirical Software Engineering and Measurement (ESEM), 2008. Acceptance rate: 47%

Sreedevi Sampath, Renee Bryce, Gokulanand Viswanath, Vani Kandimalla, A. Gunes Koru, “Test case Prioritization for Web Application Testing”, IEEE International Conference on Software Testing, Verification and Validation (ICST 2008), pages 141 - 150, April 2008. Acceptance rate: 20%

Sreedevi Sampath, Sara Sprenkle, Emily Gibson, and Lori Pollock, “Web Application Testing with Customized Test Requirements—An Experimental Comparison Study”, IEEE International Symposium on Software Reliability and Engineering (ISSRE), pages 266 - 278, November 2006. Acceptance rate: 30%

Sara Sprenkle, Emily Gibson, **Sreedevi Sampath**, and Lori Pollock, “Automated Replay and Failure Detection of Web Applications”, International Conference on Automated Software Engineering (ASE), November 2005. Acceptance rate: 9%

Sara Sprenkle, **Sreedevi Sampath**, Emily Gibson, Lori Pollock, and Amie Souter, “An Empirical Comparison of Test Suite Reduction Techniques for User-session-based Testing of Web Applications”, IEEE International Conference on Software Maintenance (ICSM), pages 587 - 596, September 2005. Acceptance rate: 30%

Sreedevi Sampath, Valentin Mihaylov, Amie Souter, and Lori Pollock, "A Scalable Approach to User-session based Testing of Web Applications through Concept Analysis", IEEE International Conference on Automated Software Engineering (ASE), pages 132 - 141, September 2004. Acceptance rate: 14%

Sreedevi Sampath, Valentin Mihaylov, Amie Souter, Lori Pollock, “Composing a Framework to Automate Testing of Operational Web-Based Software”, IEEE International Conference on Software Maintenance (ICSM), pages 104 - 113, September 2004. Acceptance rate: 32%

Book Chapters

Sreedevi Sampath, Sara Sprenkle, “Advances in Web Application Testing 2010-2014”, in Advances in Computers, Memon A. (Ed), Elsevier, Vol. 101 pp 155 - 191, 2016.

Renee Bryce, **Sreedevi Sampath**, “Test suite prioritization by Combinatorial Coverage”, in Introduction to Combinatorial Testing, CRC Press, Taylor and Francis Group, 2013. ISBN: 978-1-4665-5229-6, 2013.

Sreedevi Sampath, “Advances in User-session-based Testing of Web Applications”, in Advances in Computers, Memon A. (Ed), Elsevier, Vol. 86, pp 87 - 108, 2012.

Peer-reviewed (workshop proceedings)

Carolyn Seaman, A. Gunes Koru, **Sreedevi Sampath**, “Discovering Determinants of High Volatility Software”, short paper at the International Workshop on Cooperative and Human Aspects of Software Engineering, co-located with the International Conference on Software Engineering (ICSE), May 2009.

Sreedevi Sampath, Sara Sprenkle, Emily Gibson, Lori Pollock, "Integrating Customized Test Requirements with Traditional Requirements in Web Application Testing", Workshop on Testing, Analysis and Verification of Web Services and Applications (TAV-WEB 2006), co-located with International Symposium on Software Testing and Analysis (ISSTA 2006), July 2006.

Sara Sprenkle, Emily Gibson, **Sreedevi Sampath** and Lori Pollock, "A Case Study of Automatically Creating Test Suites from Web Application Field Data", Workshop on Testing, Analysis and Verification of Web Services and Applications (TAV-WEB 2006), co-located with the International Symposium on Software Testing and Analysis (ISSTA 2006) , July 2006.

Sreedevi Sampath, Sara Sprenkle, Emily Gibson, Lori Pollock and Amie Souter, “Analyzing Clusters of Web Application User Sessions”, Workshop on Dynamic Analysis (WODA 2005), co-located with International Conference on Software Engineering (ICSE 2005), May 2005. Acceptance rate: 52%.

Sreedevi Sampath, Amie Souter, Lori Pollock, “Towards Defining and Exploiting Similarities in Web Application Use Cases through User Session Analysis”, Workshop on Dynamic Analysis (WODA 2004), co-located with International Conference on Software Engineering (ICSE 2004), May 2004. Acceptance rate: 50%

Non-Peer-Reviewed (Dissertation)

Sreedevi Sampath, “Cost-effective Techniques for User-session-based Testing of Web Applications”, University of Delaware, 2006.

Works submitted or in Preparation

Pierce McMillian, Andrea Zemp, Nicole Dawson, **Sreedevi Sampath**, “Examining Static Analysis Tool Use Among Android Developers”, in preparation

Ronald Perrella, Sreedevi Sampath, “Effective Mutation Testing of Single Page JavaScript Applications”, in preparation

Ruinan Liu, Sreedevi Sampath, Sara Sprenkle “Detecting and Reporting Malicious Visitors of Web Applications”, in preparation

Presentations

Refereed (Conference and Workshop Presentations)

International Conference on Software Maintenance, Tool Demonstration Track (ICSM 2011), “A Tool for Combinatorial-based Prioritization and Reduction of User-Session-Based Test Suites”, September 2011.

Verify ATI Testing and Test Automation Conference, “CPUT: Combinatorial-Based Prioritization for User-Session-Based Testing of Web Applications”, September 2011.

International Conference on Software Testing, Verification and Validation (ICST 2008), “Test Case Prioritization for Web Application Testing”, April 2008.

International Symposium on Software Reliability and Engineering (ISSRE 2006), “Web Application Testing with Customized Test Requirements—An Experimental Comparison Study”, November 2006.

Workshop on Testing, Analysis and Verification of Web Services and Applications (TAV-WEB 2006), “Integrating Customized Test Requirements with Traditional Requirements in Web Application Testing”, July 2006.

International Conference on Automated Software Engineering (ASE 2004), “A Scalable Approach to User-session based Testing of Web Applications through Concept Analysis”, September 2004.

International Conference on Software Maintenance (ICSM 2004), “Composing a Framework to Automate Testing of Operational Web-Based Software”, September 2004.

Workshop on Dynamic Analysis (WODA 2004), “Towards Defining and Exploiting Similarities in Web Application Use Cases through User Session Analysis”, May 2004

Refereed (Poster Presentations)

Undergraduate Research Creative Achievement Day (URCAD) at UMBC, Jared Keirle, Sreedevi Sampath, Sara Sprenkle, “Empirical study on Defining Reliable Features for Detecting Malicious Users of Web Applications”, April 2018

Undergraduate Research Creative Achievement Day (URCAD) at UMBC, Steven Herrera, Reenah Sheikh, Soheila Escobar, Youssef Zaki, “Tutor on Campus”, April 2018. Creative project by students in my IS448 class.

Undergraduate Research Creative Achievement Day (URCAD) at UMBC, Scott Thompson, Mithra Muthukrishnan, Sreedevi Sampath, Sara Sprenkle, “Detecting and Blocking Malicious Website Visitors Through Mining Click-Stream Data and Applying Clustering Methods”, April 2017

High Confidence Software and Systems Conference (HCSS), Isaiah Yoon, Mengni Du, Sreedevi Sampath, “Applying User Sessions to Detect SQL Injection Vulnerabilities in Web Applications”, May 2016.

International Workshop on Cooperative and Human Aspects of Software Engineering, co-located with the International Conference on Software Engineering (ICSE), Carolyn Seaman, A. Gunes Koru, **Sreedevi Sampath**, “Discovering Determinants of High Volatility Software”, May 2009.

Workshop on Socio-technical congruence, co-located with the International Conference on Software Engineering, Carolyn Seaman, A. Gunes Koru and **Sreedevi Sampath**, “Socio-Technical Congruence and Software Defect Proneness”, May 2009.

Consortium for Computing Sciences in Colleges—Eastern Conference, Susan Mitchell, **Sreedevi Sampath**, Viviane Malheiros, “Leveraging Knowledge Management for Software Product Development”, October 2008

Mid-Atlantic Student Workshop on Programming Languages and Systems, Presentation on “Applying Concept Analysis to User-session-based Testing of Web Applications”, April 2006

Doctoral Symposium, International Conference on Software Engineering (ICSE 2005), Presentation on “Cost-effective Techniques for User-session-based Testing of Web Applications”, May 2005. Acceptance rate: 41%

Mid-Atlantic Student Workshop on Programming Languages and Systems, Presentation on “Relating User Session Clusters to Dynamic Web Application Behavior”, April 2005

Other Professional Presentations

Invited talks

Software Testing Workshop, U.S. Army Evaluation Center (AEC), Aberdeen Proving Ground, MD, “Combinatorial Testing”, Co-speaker with Richard Kuhn (NIST) and Raghu Kacker (NIST), May 2010

Special Interest Group on Systems, Department of CIS, University of Delaware, DE “Test case prioritization for Web Application Testing”, October 2008

Fraunhofer Center for Experimental Software Engineering, College Park, MD, “Test case prioritization for Web Application Testing”, December 2007

National Institute of Standards and Technology (NIST), Gaithersburg, MD, “Cost-effective Techniques for User-session-based Testing of Web Applications”, June 2007

Department of Information and Software Engineering, George Mason University, “Web Application Testing with Customized Test Requirements—An Experimental Comparison Study”, February 2007

Colloquia

UMBC Information Systems Department Seminar, University of Maryland Baltimore County, “Developing a Single Model and Test Prioritization Strategies for Event-Driven Software”, February 2011

Special Interest Group on Program Analysis and Compiler Techniques (SIGPACT), University of Delaware, “A Scalable Approach to User-session based Testing of Web Applications through Concept Analysis”, November 2003

Special Interest Group on Program Analysis and Compiler Techniques (SIGPACT), University of Delaware, “Testing and Analysis of Web Applications”, April 2003

TEACHING EXPERIENCE

At the Information Systems Department, University of Maryland, Baltimore County

IS498: “Software Testing”, Spring 2020

IS472: “Software Security”, Fall 2018, Fall 2019, Fall 2020

IS740: “Fundamentals of Software Testing”, Fall 2012, Fall 2013, Fall 2015, Fall 2016, Fall 2017, Spring 2020

IS 448: “Markup and Scripting Languages”, Fall 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Fall 2020

IS698/800: “Special Topics Course in Fundamentals of Software Testing”, Spring 2008

IS147: “Introduction to Computer Programming”, Spring 2014

IS436: "Structured Systems Analysis and Design", Spring 2007, Fall 2007

IS600: "Introduction to Information Systems and Implementation", Fall 2006, Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2014

IS399: “Cooperative Education in Information Systems”, every semester from Fall 2013 - present

MGMT399: “Administrative Internship”, every semester from Fall 2013 - present

IS478: “Cybersecurity Internship”, every semester from Fall 2017-present

IS397: “Health IT internship”, every semester from Spring 2018-present

Supervised Independent Studies

Graduate (Ph.D.)

- Ben Houdeshell, Ph.D. student, Spring 2016, “Formal verification methods”
- Ben Houdeshell, Ph.D. student, Fall 2015, “Survey of big data software testing practices and challenges”
- Ronald Perella, Ph.D. student, Fall 2013, “Capture-replay Testing of Rich Internet Applications”
- Brandt Braunschweig, Ph.D. student, Spring 2011, “Studying volatility predictors in Open Source Software”
- Mark Pohl, Ph.D. student, Spring 2008, “Use of Web Services in Bio-informatics Software Development”
- Yuepu Guo, Ph.D. student, Fall 2007, “Web Application Fault Classification—An Exploratory Study”
- Susan Mitchell, Ph.D. student, Fall 2006, “A Conceptual Framework for the Application of Knowledge Management in Software Development Projects”

Graduate (M.S.)

- Nicole Dawson, M.S. student, Spring 2018
- Rodrigo Castro, M.S. student, Spring 2017
- Isaiah Yoon, M.S. student, Spring 2016
- Pierce McMillian, M.S. student, Spring 2016
- Andrea Zemp, M.S. student, Spring 2016
- Katrina Chan, M.S. student, Spring 2015

- Mengni Du, M.S. student, Spring 2015
- Benjamin Houdeshell, M.S. Student, Spring 2012, “Load testing for web applications using the cloud”
- Nilesh Chaturvedi, M.S. student, Fall 2011, “Frequency criteria for CPUT”
- Nishant Samant, M.S. student, Fall 2011, “Experiments with replay tool and fault detection framework for Web Applications”
- Shama Khadpekar, M.S. student, Spring 2011, “Oracles and fault testing framework for Rich Internet Applications”
- Jayalakshmi Subramanian, M.S. student, Spring 2011, “Fault classification for Rich Internet Applications”
- Sachinkumar Jain, M.S. student, Fall 2009, “Developing a Framework for Test Prioritization with Apache Web Server”
- Nithya Jayakumar, M.S. student, Fall 2008, “Studying the Effect of Debugging Time on Test Suite Prioritization”
- Gokul Viswanath, M.S. student, Fall 2007, “Prioritization Criteria for Web Applications” (not graded work)

Undergraduate

- Syeda Fatima, B.S., Spring 2020
- Patrick Matejka, B.S. student, Spring 2019
- John Dennison, B.S. student, Spring 2019
- Jared Kierle, B.S. student, Spring 2018, Fall 2018
- Zachariah Dzielinski, B.S. student, Fall 2017
- Scott Thompson, B.S. student, Fall 2016 and Spring 2017, “Clustering User session data to detect Malicious Bot Traffic”
- Maneet Sarai, B.S. student, Fall 2009, “Publications Manager in PHP”
- Ephrem Abebe, B.S. student, Summer 2012, “Designing and developing a website for the Empirical and Applied Software Engineering Lab” (not graded work)

At the Department of Computer and Information Sciences, University of Delaware

Instructor – CISC 101 “General Computer Science”, Summer 2004

Teaching Assistant - CISC 475 "Object Oriented Software Engineering", CISC 663 "Operating Systems", Spring 2006, Fall 2005, CISC 450 “Computer Networks”, Fall 2005

Laboratory Instructor and Teaching Assistant – CISC 105 “Programming in C”, Fall 2000, Summer 2001, CISC 101 “General Computer Science”, Spring 2001

At the Department of Physics and Astronomy, University of Delaware

Laboratory Instructor and Teaching Assistant – “Introductory Physics”, Summer 2001

30-60 minute lectures in CIS courses at the University of Delaware

“Software Testing – Integration and System Testing Strategies” (50 minute lecture), CISC 475 **Object-Oriented Software Engineering**”, Spring 2006

“Software Testing – Unit Testing Strategies” (50 minute lecture), CISC 475 **Object-Oriented Software Engineering**”, Spring 2006

“A Methodology for Controlling the Size of a Test Suite” (45 minute lecture), CISC 879 **Software Testing and Maintenance**, Spring 2004

“Experiments on Effectiveness of Data-flow and Control-flow-Based Test Adequacy Criteria” (45 minute lecture), **CISC 879 Software Testing and Maintenance**, Spring 2004

“Pursuing Failure: The Distribution of Program Failures in a Profile Space” (45 minute lecture), **CISC 879 Software Testing and Maintenance**, Spring 2004

“Simple Mail Transfer Protocol” (one-hour lecture and designed homework for class), **CISC 856 TCP/IP and Upper Layer Protocols**, Spring 2002

“IP Traceback under Denial of Service Attack”, **CISC 859 Internet Protocol & Technologies**, Spring 2001

SERVICE

Service to Department

At the Department of Information Systems, UMBC

2021-present	Interim Graduation Program Director, MPS in Software Engineering
2016-present	Director of Undergraduate Programs
2018-present	Member, Adjunct Faculty Committee
2019-20	Member, Tenure-track faculty search committee
2019-20	Member, Lecturer/POP search committee
2019	Faculty Representative, UMBC Transfer Students Open House
2019	Faculty Representative, UMBC Welcome Week
2018-19	Chair, Promotion and Tenure Committee
2018	Faculty Representative, UMBC Welcome Week
2018	Member, Adjunct Faculty Promotion Committee
2018	Faculty Representative, UMBC Visit Day
2017	Faculty Representative, UMBC Welcome Week
2013-2016	Associate Undergraduate Program Director
2015-16	Chair of Promotion and Tenure Committee
2015-2018	Member, IS MS and PhD Graduate committee
2014-15	Member, Faculty recruiting committee
2014,15,16	Judge, IS Department Research Poster Competition
2013-present	Member, Undergraduate Studies Committee
2013-2016	Member, Research committee
2012	Co-organizing attendance of IS graduate and undergraduate students at the Grace Hopper Celebration in Computing 2012
2012-13	Member, Library committee
2011-13	Member, Research committee
2011-12	Member, Faculty recruiting committee
2011	Judge, IS Department Research Poster Competition
2010	Faculty Representative, UMBC Visit Day
2009-11	Member, IS Graduate committee
2009	Web Certificate ad-hoc committee member
2008	Faculty Representative, UMBC Visit Day
2008	Member, Merit Review Committee
2007-2009	Member, IS Undergraduate committee

At the Department of Computer and Information Sciences, University of Delaware

2005	Co-organizer, Special Interest Group on High Performance Computing and Software Engineering, Department of Computer and Information Sciences, University of Delaware, Fall 2005. Organized seminar series. Invited and hosted visiting research speakers.
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- 2005 – 2006 Member, Organizing Committee, CIS Women’s Group (CISTers) Activities, University of Delaware. Led first get-together event for all women in Computer and Information Sciences and assisted in other events for women in CIS. Involved in the core group of four women who worked on obtaining financial support from the Department of CIS and the Dean of College of Arts and Sciences for a group of 10 women in the CIS to attend and participate in the Grace Hopper Celebration of Women in Computing (GHC), 2006. The endeavor to obtain financial support was successful and the University of Delaware sent 8 graduate and undergraduate students to GHC 2006.

Service to College

- 2021-present Computing Placement Exam Committee
 2020-present PhD Virtual Open House Planning Group
 2019-20 Chair, COEIT Faculty Advisory Committee
 2017-19 Committee Member, COEIT Faculty Advisory Committee
 2018-present Committee Member, COEIT Undergraduate Program Directors Committee

Service to University

- 2021 Panelist, Center for Women in Technology Living Learning Community (LLC)
 2009-present Mentor, Center for Women in Technology Scholars and Cyber Scholars
 2019-present Member, Academic Programs Board (APB) Committee
 2019 Panelist, Transfer Success Seminar (TRS 201)
 2019 Panelist, Bits and Bytes Center for Women in Information Technology program
 2019 Cyber scholar interviewer, Center for Women in Information Technology
 2018 Panelist, Best of Center for Women in Information Technology panel – Meet the faculty
 2018-19 Committee member, Council of University System Faculty (CUSF)
 2018-19 Committee member, UMBC Arbitrary and Capricious Grade Review Panel
 2018 Cyber scholar interviewer, Center for Women in Information Technology
 2015—2017 Committee Member, UMBC Faculty Affairs Committee
 2014—2015 Committee Member, UMBC Capricious Grade Review Panel
 2012—2014 Committee Member, UMBC Computer Policy Committee
 2010—2012 Committee Member, UMBC Athletics Policy Committee
 2008—present Faculty Advisor, Undergraduate Student Organization—Aadaa, Arts/Performance Category

Service to Profession

- 2019-present Editorial board, Journal on Software Testing Verification and Reliability, Wiley
 2022 Committee member, International Conference on Software Engineering (ICSE) Workshops
 2021 Committee member, International Conference on Software Engineering (ICSE) Demonstrations
 2021 Reviewer, Posters track at IEEE International Conference on Software Testing, Verification and Validation (ICST)
 2021 Posters co-chair, IEEE International Conference on Software Testing, Verification and Validation (ICST)
 2020 Manuscript reviewer, Journal on Software Maintenance and Evolution (JSME)
 2020 PhD symposium co-chair, IEEE Conference on Smart Computing
 2020 Committee member, International Conference on Software Engineering (ICSE) Workshops
 2020 Program committee member, TestEd: Software Testing Education workshop co-located with ICST
 2019 Manuscript reviewer, Journal on Software Testing Verification and Reliability, Wiley

- 2019 Manuscript reviewer, Transactions on Software Engineering (TSE)
- 2019 National Science Foundation (NSF) Panel reviewer
- 2019 Program committee member, International Working Conference on Source Code Analysis and Manipulation (SCAM)
- 2019 Program committee member, Workshop on Gender Equality in Software Engineering, co-located with the International Conference on Software Engineering (ICSE)
- 2019 Program committee member, IEEE International Conference on Software Testing, Verification and Validation (ICST)
- 2019 Workshops co-chair, IEEE International Conference on Software Testing, Verification and Validation (ICST)
- 2018 Manuscript reviewer, Information and Management Journal
- 2018 Manuscript reviewer, ACM Computing Surveys (CSUR)
- 2017 Manuscript reviewer, Software Testing Verification and Reliability, Wiley
- 2017 Manuscript reviewer, Transactions on Reliability
- 2017 Program committee member, IEEE Software and Technology Conference (STC)
- 2017 National Science Foundation (NSF) Panel reviewer
- 2017 Finance chair, IEEE International Conference on Software Testing, Verification and Validation (ICST)
- 2017 Program committee member, International Workshop on Combinatorial Testing, co-located with ICST
- 2016 Program committee member, International Workshop on Combinatorial Testing, co-located with ICST
- 2016 National Science Foundation (NSF) Panel reviewer
- 2016 Co-chair of Short Papers track, International Conference on Empirical Software Engineering and Measurement (ESEM)
- 2015 Manuscript reviewer, Transactions on Software Engineering (TSE)
- 2015 Manuscript reviewer, Transactions on Reliability
- 2015 Manuscript reviewer, Journal of Systems and Software (JSS)
- 2015 Co-chair of Productization track, Grace Hopper Celebration of Women in Computing
- 2015 Publicity Chair, International Conference on Software Testing and Analysis (ISSTA)
- 2015 Program committee member, International Workshop on Combinatorial Testing, co-located with ICST
- 2014 Manuscript reviewer, ACM Transactions on Software Engineering and Methodology (TOSEM)
- 2014 National Science Foundation (NSF) Panel reviewer
- 2014 Program committee member, International Symposium on Software Reliability Engineering (ISSRE)
- 2014 Program committee member, International Workshop on Combinatorial Testing, co-located with ICST
- 2014 Program committee member, The Testing: Academic and Industrial Conference - Practice and Research Techniques (TAIC-PART), co-located with ICST
- 2014 Program committee member, Grace Hopper Celebration of Women in Computing, Software Engineering Track
- 2013 Manuscript reviewer, ACM SIGSOFT Outstanding Doctoral Dissertation Award
- 2013 Manuscript reviewer, STVR, Wiley
- 2013,16 Manuscript reviewer, IST, Elsevier
- 2013 Program committee member, ISSRE
- 2013 Programming committee member, ICISOFT
- 2013 Program committee member, International Workshop on Combinatorial Testing, co-located with ICST

- 2013 Program committee member, International Conference on Evaluation of Novel Software Approaches to Software Engineering (ENASE)
- 2013 Program committee member, Grace Hopper Celebration of Women in Computing, Software Engineering Track
- 2013 Program committee member, IEEE International Conference on Empirical Software Engineering and Management (ESEM) Short papers track
- 2013 Publicity chair, Organizing Committee member, IEEE International Conference on Empirical Software Engineering and Management (ESEM)
- 2012 Book chapter reviewer, Java Programming, Schildt, 1/e, McGraw-Hill Publishers
- 2012 Program committee member, International Workshop on Combinatorial Testing (CT), co-located with ICST
- 2012 Program committee member, PhD Forum, Grace Hopper Celebration of Women in Computing
- 2012 Program committee member, International Conference on Evaluation of Novel Software Approaches to Software Engineering (ENASE)
- 2012 Reviewer, IEEE iConference
- 2012 Program committee member, International Conference on Quality Software (QSIC)
- 2012 Program committee member, IEEE International Conference on Software Testing, Verification and Validation (ICST)
- 2012 Manuscript reviewer, Journal of Systems and Software (JSS)
- 2011 Proposal Referee, Discover Grant Program, National Sciences and Engineering Research Council of Canada
- 2011 Program committee member, IEEE International Conference on Software Testing, Verification and Validation (ICST)
- 2011 Manuscript reviewer, IEEE Transactions on Software Engineering (TSE)
- 2011 Manuscript Reviewer, Information and Software Technology Journal (IST)
- 2010 Program Committee Member, Fifth International Conference on Software and Data Technologies (ICSOFD)
- 2010 Program Committee Member, IEEE International Conference on Empirical Software Engineering and Management (ESEM)
- 2010 Program committee member, International Conference on Predictor Models in Software Engineering (PROMISE)
- 2010 Manuscript reviewer, Journal of Systems and Software (JSS)
- 2010 Manuscript Reviewer, Information and Software Technology Journal (IST)
- 2010 Manuscript Reviewer, Journal of Software Testing, Verification, and Reliability (STVR)
- 2009 Manuscript reviewer, IEEE Software
- 2009 Manuscript reviewer, IET Software
- 2009 Manuscript reviewer, Encyclopedia of Software Engineering, Wiley Interscience Publishers
- 2009 Manuscript Reviewer, Information and Software Technology Journal (IST)
- 2009 Session chair, International conference on Empirical Software Engineering and Measurement (ESEM)
- 2009 Program Committee Member, IEEE International Symposium on Software Reliability Engineering (ISSRE)
- 2009 Program Committee Member, IEEE International Workshop on Dynamic Analysis (WODA), co-located with the International Conference on Software Testing and Analysis (ISSTA)
- 2009 Program Committee Member, IEEE International Conference on Software Engineering Advances (ICSEA)
- 2009 Program Committee Member, IEEE International Conference on Empirical Software Engineering and Management (ESEM)

- 2009 Program Committee Member, IEEE International Conference on Software Testing, Verification and Validation (ICST)
- 2009 Manuscript Reviewer, Journal of Software Testing, Verification, and Reliability (STVR)
- 2008 Manuscript reviewer, Journal of Knowledge and Information Systems (KAIS)
- 2008 Manuscript reviewer, Journal of Systems and Software (JSS)
- 2008 Manuscript Reviewer, Information and Software Technology Journal (IST)
- 2008 Manuscript Reviewer, Journal of Software Testing, Verification, and Reliability (STVR)
- 2008 Program Committee Member, IEEE International Symposium on Software Reliability Engineering (ISSRE)
- 2008 Program Committee Member, IEEE International Conference on Empirical Software Engineering and Management (ESEM)
- 2007 Manuscript Reviewer, Empirical Software Engineering Journal (ESE)
- 2007 External Reviewer, IEEE International Symposium on Software Reliability Engineering (ISSRE)
- 2007 Manuscript Reviewer, Information and Software Technology Journal (IST)
- 2007 Manuscript reviewer, IEEE Transactions on Software Engineering (TSE)
- 2005 Manuscript Reviewer, IEEE Transactions on Software Engineering (TSE)
- 2007 Manuscript Reviewer, Journal of Software Testing, Verification, and Reliability (STVR)
- 2006 Manuscript Reviewer, Information and Software Technology Journal (IST)
- 2006 Manuscript Reviewer, Informatica Journal
- 2006 Manuscript Reviewer, International Conference on Software Engineering
- 2005 Manuscript Reviewer, Workshop on Dynamic Analysis
- 2005 Organizing Committee, Mid-Atlantic Student Workshop on Programming Languages and Systems (MASPLAS)
- 2004 Manuscript Reviewer, Eclipse Technology eXchange Workshop