SAM MALEK

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1 EDUCATION

Doctor of Philosophy Computer Science August 2007
University of Southern California
Dissertation: *A User-Centric Approach for Improving a Distributed Software System's Deployment Architecture*

Master of Science Computer Science May 2004
University of Southern California
Emphasis on Software Engineering

Bachelor of Science Information and Computer Science December 2000
University of California, Irvine

2 EMPLOYMENT HISTORY

July 2019 – present
Professor
Department of Informatics
Donald Bren School of Information and Computer Sciences
University of California, Irvine

August 2007 – present
Director
Software Engineering and Analysis Laboratory
University of California, Irvine
(August 2007 – June 2015 at George Mason University)

July 2018 – July 2022
Director
Institute for Software Research
University of California, Irvine
(July 2015 – June 2018 Faculty Member)

July 2015 – June 2019
Associate Professor
Department of Informatics
Donald Bren School of Information and Computer Sciences
University of California, Irvine

August 2013 – June 2015
Associate Professor
Computer Science Department
Volgenau School of Engineering
George Mason University

August 2007 – June 2015
Faculty Member
C4I Center
George Mason University

August 2007 – July 2013
Assistant Professor
Computer Science Department
Volgenau School of Engineering
George Mason University

January 2003 – May 2007	Graduate Research Assistant Computer Science Department University of Southern California
April 2005 – May 2007	Software Architect Boeing Corporation Huntington Beach, CA
December 2000 – May 2002	Software Engineer PriceWaterhouseCoopers Consulting (IBM Global Business Services), Los Angeles, CA
August 1999 – Nov. 2000	Software Engineer FieldCentrix, Irvine, CA
May 1998 – September 1999	Software Engineer Neural Computing Systems Labs, Irvine, CA

3 RESEARCH INTERESTS

- Software Engineering
- Software Architecture and Design
- Software Dependability and Security
- Software Analysis and Testing
- Software Accessibility
- Mobile Computing

4 HONORS, AWARDS, AND STATISTICS

- H-index: 51
  (scholar.google.com)
- Citations: 9,927
  (scholar.google.com)
- Test of Time Award 2020
  18th ACM SIGSOFT International Symposium on the Foundations of Software Engineering
- Mason Emerging Researcher/Scholar/Creator Award 2013
  George Mason University
- NSF CAREER Award 2013
- Outstanding Faculty Research Award 2011
  Computer Science Department, George Mason University
- DARPA Computer Science Study Group 2011 – 2014
  Selective early career award given annually to 12 academic panelists
- ACM Doctoral Dissertation Competition finalist 2007
  Nominated by the University of Southern California

- Outstanding Graduate Student Researcher Award 2005
  Computer Science Department, University of Southern California
- USC Viterbi School of Engineering Doctoral Fellow 2004 – 2008
- Magna Cum Laude 2000
- Cody Thorne Memorial Scholarship Award 1998
  Awarded annually to the youngest and highest scholastic student of the year
- Dean's Honor List 1997 – 2000

5 RESEARCH GRANTS, GIFTS, AND CONTRACTS

G29. National Science Foundation
"Automated Software Engineering Techniques for Improving the Accessibility of Software"
Duration: 10/1/2022 – 9/30/2026
Investigator: Sam Malek (PI), Iftekhar Ahmed (Co-PI), and Stacy Branham (Co-PI)
Award Amount: $1,199,986

G28. UCI, Academic Senate Council on Research, Computing and Libraries (CORCL) Award
"Learning Neural Network Embedding of Apps for Foundational Advances in Software Engineering"
Duration: 3/18/2022 – 6/30/2022
Investigators: Sam Malek (PI)
Award Amount: $2,785

G27. National Science Foundation
"A General Framework for Automated Test Transfer"
Duration: 10/1/2021 – 9/30/2025
Investigators: Sam Malek (PI at UCI), Alessandro Orso (Lead PI at Georgia Tech), and Nenad Medvidovic (PI at USC)
Award Amount: $1,200,000

G26. US Department of Education, Graduate Assistance in Areas of National Need Program (GAANN)
"Graduate Fellowships in Cybersecurity at the University of California, Irvine"
Duration: 10/1/2021 – 6/30/2024
Investigators: Sam Malek (PI)
Award Amount: $1,141,425

G25. UCI, School of Information and Computer Sciences Research Award
"SAHARA: Software Analysis for Hardware Acceleration with Reconfigurable Architectures"
Duration: 7/1/2021 – 6/30/2022
Investigators: Joshua Garcia (PI), Sang-Woo Jun (Co-PI), Alberto Krone-Martins (Co-PI), Aparna Chandramowlishwaran (Co-PI), Sam Malek (Co-PI), Crista Lopes (Co-PI), Jim Bullock (Co-PI)
Award Amount: $75,000

G24. National Science Foundation
"Research Experiences for Undergraduates (REU) Supplement for Constructing a Community-Wide Software Architecture Infrastructure"

Duration: 6/1/2021 – 8/31/2022
Investigators: Sam Malek (PI) and Joshua Garcia (Co-PI)
Award Amount: $17,400

G23. UCI, Academic Senate Council on Research, Computing and Libraries (CORCL) Award
"Mobile Devices for Evaluating Accessibility of Mobile Apps through User Studies"
Duration: 3/15/2021 – 6/30/2021
Investigators: Sam Malek (PI)
Award Amount: $6,990

G22. UCI, School of Information and Computer Sciences Research Award
"Toward Stemming Accessibility Issues in Software"
Duration: 7/1/2020 – 6/30/2021
Investigators: Sam Malek (PI), Iftekhar Ahmed (Co-PI), Stacy Branham (Co-PI)
Award Amount: $75,000

G21. Google
"Mining Architectural Information to Stem Technical Debt"
Duration: 10/3/2019 – 10/2/2020
Investigators: Sam Malek (PI)
Award Amount: $42,500

G20. National Science Foundation (NSF)
"Constructing a Community-Wide Software Architecture Infrastructure"
Duration: 9/1/2018 – 8/31/2021
Investigators: Sam Malek (PI at UCI), Joshua Garcia (Co-PI at UCI), Nenad Medvidovic (Lead PI at USC), Mehdi Mirakhorli (PI at RIT), Rick Kazman (PI at UH), Yuanfang Cai (PI at Drexel), and Lu Xiao (PI at Stevens)
Award Amount: $1,660,000

G19. Federal Bureau of Investigation (FBI)
"Analysis of Android Application Packages for Security-Relevant Properties"
Duration: 9/26/2016 – 9/25/2017
Investigators: Sam Malek (PI)
Award Amount: $118,964

G18. National Science Foundation (NSF)
"Planning and Prototyping a Community-Wide Software Architecture Instrument"
Duration: 8/1/2016 – 7/31/2018
Investigators: Sam Malek (PI at UCI), Joshua Garcia (Co-PI at UCI), Nenad Medvidovic (Lead PI at USC), and Mehdi Mirakhorli (PI at RIT)
Award Amount: $130,000

G17. National Science Foundation (NSF)
"Efficient Formal Analysis of Evolving Software Systems"
Duration: 7/1/2016 – 6/30/2020
Investigators: Sam Malek (PI), Hamid Bagheri (Co-PI)
Award Amount: $499,170

G16. Air Force Office of Scientific Research (AFOSR)
"RASS: Resilient Autonomic Software Systems"
Duration: 10/15/2015 – 10/14/2018
Investigators: Sam Malek (PI at UCI), Daniel A. Menasce (Lead PI at GMU), Hassan Gomaa (Co-PI at GMU)
Award Amount: $1,016,641

G15. Department of Homeland Security (DHS)
"Tools for Automated Detection and Assessment of Security Vulnerabilities in Mobile Applications"
Duration: 6/1/2014 – 5/31/2017
Investigator: Sam Malek (Sole PI)
Award Amount: $500,000

G14. National Security Agency (NSA)
"Compositional Analysis of Android Apps for Security Vulnerabilities"
Duration: 9/5/2014 – 4/24/2015
Investigator: Sam Malek (Sole PI)
Award Amount: $200,000

G13. National Security Agency (NSA)
"Science of Secure Frameworks"
Duration: 1/1/2014 – 12/31/2016
Investigators: Sam Malek (PI at UCI), William Scherlis (Lead PI at CMU) and colleagues at CMU
UCI Award Amount: $195,000

G12. Defense Advanced Research Projects Agency (DARPA)
"Testing Privacy-Preserving Distributed Systems on DETERLab"
Duration: 11/1/2013 – 2/28/2015
Investigators: Sam Malek (PI at GMU), Nenad Medvidovic (Lead PI at USC), and Yuriy Brun (PI at UMass)
Award Amount: $300,000
GMU Award Amount: $84,000

G11. Office of the Director of National Intelligence (ODNI)
"Automated Approach for Detection and Mitigation of Security Vulnerabilities in Mobile Applications"
Duration: 7/8/2013 – 7/7/2016
Investigator: Sam Malek (Sole PI)
Award Amount: $359,372

G10. Intelligence Advanced Research Projects Activity (IARPA)
"sTile: Private Computing in the Open"
Duration: 9/27/2013 – 9/26/2014
Investigators: Sam Malek (PI at GMU), Nenad Medvidovic (Lead PI at USC), and Yuriy Brun (PI at UMass)
Award Amount: $300,000
GMU Award Amount: $84,000

G9. National Science Foundation (NSF)

"CAREER: A Mining-Based Approach for Consistent and Timely Adaptation of Component-Based Software"
Duration: 2/1/2013 – 1/31/2019
Investigator: Sam Malek (Sole PI)
Award Amount: $451,481

G8. Army Research Office (ARO)
"Architecture-Based Self-Securing Systems"
Duration: 10/1/2012 – 9/30/2015
Investigators: Sam Malek (PI at GMU), William Scherlis (Lead PI at CMU) and colleagues at CMU
GMU Award Amount: $200,000

G7. Federal Bureau of Investigation (FBI)
"Automated Security Testing and Analysis of Android Applications"
Duration: 9/12/2012 – 9/11/2014
Investigator: Sam Malek (Sole PI)
Award Amount: $90,000

G6. Defense Advanced Research Projects Agency (DARPA)
"Engineering Highly Adaptive Resilient Software Systems"
Duration: 4/25/2011 – 5/31/2016
Investigator: Sam Malek (Sole PI)
Award Amount: $949,065

G5. National Science Foundation (NSF)
"Mining the Execution History of a Software System to Infer the Best Time for its Adaptation"
Duration: 2/1/2012 – 1/31/2014
Investigator: Sam Malek (Sole PI)
Award Amount: $80,000

G4. Science Applications International Corporation (SAIC)
"COTS Very Small Computing Platforms - Tactical"
Duration: 1/1/2010 – 6/30/2011
Investigator: Sam Malek (Sole PI)
Award Amount: $224,470

G3. Science Applications International Corporation (SAIC)
"COTS Very Small Computing Platforms - Security"
Duration: 1/1/2010 – 6/30/2011
Investigator: Sam Malek (Sole PI)
Award Amount: $99,415

G2. National Science Foundation (NSF)
"SASSY: Self-Architecting Software Systems"
Duration: 06/15/2008 – 06/1/2011
Investigators: Sam Malek (Co-PI at GMU), Daniel A. Menasce (PI at GMU), Hassan Gomaa (Co-PI at GMU), and Joao P. Sousa (Co-PI at GMU)
Award Amount: $479,996

G1. US Army Topographic Engineering Center
Duration: 12/20/2006 – 12/20/2010
Investigators: Sam Malek (Co-PI at GMU), Michael Hieb (PI at GMU), and Mark Pullen (Co-PI at GMU)
Award Amount: $133,187

6 PUBLICATIONS

6.1 JOURNAL ARTICLES

J24. Jun-Wei Lin, Navid Salehnamadi, and Sam Malek. "ROUTE: Roads Not Taken in UI Testing." *ACM Transactions on Software Engineering and Methodology (TOSEM)*, accepted to appear.

J23. Negar Ghorbani, Reyhaneh Jabbarvand, Navid Salehnamadi, Joshua Garcia, and Sam Malek. "DeltaDroid: Dynamic Delivery Testing in Android." *ACM Transactions on Software Engineering and Methodology (TOSEM)*, accepted to appear.

J22. Joshua Garcia, Ehsan Kouroshfar, Negar Ghorbani, and Sam Malek. "Forecasting Architectural Decay from Evolutionary History." *IEEE Transactions on Software Engineering (TSE)*, Vol. 48, No. 7, July 2022.

J21. Hamid Bagheri, Jianghao Wang, Jarod Aerts, Negar Ghorbani, and Sam Malek. "Flair: Efficient Analysis of Android Inter-Component Vulnerabilities in Response to Incremental Changes." *Springer Journal of Empirical Software Engineering (EMSE)*, Vol. 26, No. 54, April 2021.

J20. Mahmoud Hammad, Hamid Bagheri, and Sam Malek. "DelDroid: An Automated Approach for Determination and Enforcement of Least-Privilege Architecture in Android." *Journal of Systems and Software (JSS)*, Special Section on Architecting Autonomous and Smart Systems. Vol 149, March 2019.

J19. Joshua Garcia, Mahmoud Hammad, and Sam Malek. "Lightweight, Obfuscation-Resilient Detection and Family Identification of Android Malware." *ACM Transactions on Software Engineering and Methodology (TOSEM)*, Vol. 26, No. 3, January 2018. (Journal First)

J18. Hamid Bagheri, Eunsuk Kang, Sam Malek, and Daniel Jackson. "A Formal Approach for Detection of Security Flaws in the Android Permission System." *Springer Journal on Formal Aspects of Computing*, Pages 1-20, November 2017.

J17. Alireza Sadeghi, Hamid Bagheri, Joshua Garcia, and Sam Malek. "A Taxonomy and Qualitative Comparison of Program Analysis Techniques for Security Assessment of Android Software." *IEEE Transactions on Software Engineering (TSE)*, Vol. 43, No. 6, June 2017. (Journal First)

J16. Alireza Sadeghi, Naeem Esfahani, and Sam Malek. "Ensuring the Consistency of Adaptation through Inter- and Intra-Component Dependency Analysis." *ACM Transactions on Software Engineering and Methodology (TOSEM)*, Vol. 26, No. 1, May 2017. (Journal First)

J15. Hamid Bagheri, Joshua Garcia, Alireza Sadeghi, Sam Malek, and Nenad Medvidovic. "Software Architectural Principles in Contemporary Mobile Software: from Conception to Practice." *Journal of Systems and Software (JSS)*, Vol. 119, Pages 31-44, September 2016.

J14. Naeem Esfahani, Eric Yuan, Kyle R. Canavera, and Sam Malek. "Inferring Software Component Interaction Dependencies for Adaptation Support." *ACM Transactions on Autonomous and Adaptive Systems (TAAS)*, Vol. 10, No. 4, February 2016.

J13. Hamid Bagheri, Alireza Sadeghi, Joshua Garcia, and Sam Malek. "COVERT: Compositional Analysis of Android Inter-App Permission Leakage." *IEEE Transactions on Software Engineering (TSE),* Vol. 41, No. 9, September 2015.

J12. Eric Yuan, Naeem Esfahani, and Sam Malek. "A Systematic Survey of Self-Protecting Software Systems." *ACM Transactions on Autonomous and Adaptive Systems (TAAS)*, Vol. 8, No. 4, January 2014.

J11. Deshan Cooray, Ehsan Kouroshfar, Sam Malek, and Roshanak Roshandel. "Proactive Adaptation for Improving the Reliability of Mission-Critical, Embedded, and Mobile Software." *IEEE Transactions on Software Engineering (TSE)*, Vol. 39, No. 12, December 2013.

J10. Naeem Esfahani, Ahmed Elkhodary, and Sam Malek. "A Learning-Based Framework for Engineering Feature-Oriented Self-Adaptive Software Systems." *IEEE Transactions on Software Engineering (TSE)*, Vol. 39, No. 11, November 2013.

J9. Chris A. Mattmann, Nenad Medvidovic, Sam Malek, George Edwards, and Somo Banerjee. "A Middleware Platform for Providing Mobile and Embedded Computing Instruction to Software Engineering Students." *IEEE Transactions on Education*, Vol. 55, No. 3, pages 425-435, August 2012.

J8. Naeem Esfahani, and Sam Malek. "Utilizing Architectural Styles to Enhance the Adaptation Support of Middleware Platforms." *Journal of Information and Software Technology (IST)*, Vol. 54, No. 7, pages 786-801, July 2012.

J7. Danny Weyns, Sam Malek, and Jesper Andersson. "FORMS: Unifying Reference Model for Formal Specification of Distributed Self-Adaptive Systems." *ACM Transactions on Autonomous and Adaptive Systems (TAAS) – Special Issue on Formal Methods for Pervasive, Self-Aware and Context-Aware Systems*, Vol. 7, No. 1, pages 1-61, April 2012.

J6. Sam Malek, Nenad Medvidovic, and Marija Mikic-Rakic. "Improving a Distributed Software System's Quality of Service via Redeployment." *IEEE Transactions on Software Engineering (TSE)*, Vol. 38, No. 1, pages 73-100, January/February 2012.

J5. Danny A. Menasce, Hassan Gomaa, Sam Malek, and Joao Pedro Sousa. "SASSY: A Framework for Self-Architecting Service Oriented Systems." *IEEE Software,* Vol. 28, No. 6, pages 78-85, November/December 2011.

J4. Sam Malek, Harshini Ramnath Krishnan, and Jayalakshmi Srinivasan. "Enhancing Middleware Support for Architecture-Based Development through Compositional Weaving of Styles." *Journal of Systems and Software (JSS)*, Vol. 83, No. 12, pages 2513-2527, December 2010.

J3. Sam Malek, George Edwards, Yuriy Brun, Hossein Tajalli, Joshua Garcia, Ivo Krka, Nenad Medvidovic, Marija Mikic-Rakic, Gaurav Sukhatme. "An Architecture-Driven Software Mobility Framework." *Journal of Systems and Software (JSS)*, special issue on Software Architecture and Mobility, Vol. 83, No. 6, pages 972-989, June 2010.

J2. Sam Malek, Marija Mikic-Rakic, and Nenad Medvidovic. "A Style-Aware Architectural Middleware for Resource-Constrained, Distributed Systems." *IEEE Transactions on Software Engineering (TSE)*, Vol. 31, No. 3, pages 256-272, March 2005.

J1. Nenad Medvidovic, Marija Mikic-Rakic, Nikunj Mehta, and Sam Malek. "Software Architectural Support for Handheld Computing." *IEEE Computer – Special Issue on Handheld Computing,* Vol. 36, No. 9, pages 66-73, September 2003.

6.2 CONFERENCE PUBLICATIONS

C95. Syed Fatiul Huq, Abdulaziz Alshayban, Ziayo He, and Sam Malek. "#AllyDev: Understanding Contemporary Software Accessibility Practices from Twitter Conversations." In *proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2023)*, Hamburg, Germany, April 2023. (28% acceptance rate)

C94. Navid Salehnamadi, Ziyao He, and Sam Malek. "Assistive-Technology Aided Manual Accessibility Testing in Mobile Apps, Powered by Record-and-Replay." In *proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI 2023)*, Hamburg, Germany, April 2023. (28% acceptance rate)

C93. Abdulaziz Alshayban, and Sam Malek. "AccessiText: Automated Detection of Text Accessibility Issues in Android Apps." In *proceeding of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2022)*, Singapore, November 2022. (22% acceptance rate)

C92. Forough Mehralian, Navid Salehnamadi, Syed Fatiul Huq, and Sam Malek. "Too Much Accessibility is Harmful! Automated Detection and Analysis of Overly Accessible Elements in Mobile Apps." In *proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering (ASE 2022)*, Michigan, United States, October 2022. (21% acceptance rate)

C91. Navid Salehnamadi, Forough Mehralian, and Sam Malek. "Groundhog: An Automated Accessibility Crawler for Mobile Apps." In *proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering (ASE 2022)*, Michigan, United States, October 2022. (21% acceptance rate)

C90. Jun-Wei Lin and Sam Malek. "GUI Test Transfer from Web to Android." In *proceedings of the 15th IEEE International Conference on Software Testing, Verification and Validation (ICST 2022)*, Virtual Event, April 2022. (26% acceptance rate)

C89. Mahmoud Hammad, Ibrahim Abueisa, and Sam Malek. "Tool-Assisted Componentization of Java Applications." In *proceedings of the 19th IEEE International Conference on Software Architecture (ICSA 2022)*, Honolulu, Hawaii, March 2022. (20% acceptance rate)

C88. Faraz YazdaniBanafsheDaragh and Sam Malek. "Deep GUI: Black-box GUI Input Generation with Deep Learning." In *proceedings of the IEEE/ACM Automated Software Engineering Conference (ASE 2021)*, Melbourne, Australia, November 2021. (27% acceptance rate)

C87. Forough Mehralian, Navid Salehnamadi, and Sam Malek. "Data-Driven Accessibility Repair Revisited: On the Effectiveness of Generating Labels for Icons in Android Apps." In *proceedings of the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2021)*, Athens, Greece, August 2021. (24% acceptance rate)

C86. Navid Salehnamadi, Abdulaziz Alshayban, Jun-Wei Lin, Iftekhar Ahmed, Stacy Branham, and Sam Malek. "Latte: Use-Case Assistive-Service Driven Automated Accessibility Testing Framework for Android." In *proceedings of the ACM Conference on Human Factors in Computing System (CHI 2021)*, Yokohama, Japan, May 2021. (26% acceptance rate)

C85. Joshua Garcia, Mehdi Mirakhorli, Lu Xiao, Yutong Zhao, Ibrahim Mujhid, Khoi Pham, Ahmet Okutan, Sam Malek, Rick Kazman, Yuanfang Cai, and Nenad Medvidovic. "Constructing a Shared Infrastructure for Software Architecture Analysis and Maintenance." In *proceedings of the IEEE International Conference on Software Architecture (ICSA 2021)*, Stuttgart, Germany, March 2021. (28% acceptance rate)

C84. Navid Salehnamadi, Abdulaziz Alshayban, Iftekhar Ahmed, and Sam Malek. "ER Catcher: A Static Analysis Framework for Accurate and Scalable Even-Race Detection in Android." In *proceedings of the 35th IEEE/ACM International Conference on Automated Software Engineering (ASE 2020)*, Melbourne, Australia, September 2020. (22% acceptance rate)

C83. Jun-Wei Lin, Navid Salehnamadi, and Sam Malek. "Test Automation in Open-Source Android Apps: A Large-Scale Empirical Study." In *proceedings of the 35th IEEE/ACM International Conference on Automated Software Engineering (ASE 2020)*, Melbourne, Australia, September 2020. (22% acceptance rate)

C82. Reyhaneh Jabbarvand, Forough Mehralian, and Sam Malek. "Automated Construction of Energy Test Oracle for Android." In *proceeding of the ACM joint meeting of the European Software Engineering Conference and ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2020)*, Sacramento, CA, November 2020. (28% acceptance rate)

C81. Navid Salehnamadi, Abdulaziz Alshayban, Iftekhar Ahmed, and Sam Malek. "A Benchmark for Event-Race Analysis in Android Apps." In *proceedings of the 18th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys 2020)*, *Poster track*, Toronto, Canada, June 2020.

C80. Abdulaziz Alshayban, Iftekhar Ahmed, and Sam Malek. "Accessibility Issues in Android Apps: State of Affairs, Sentiments, and Ways Forward." In *proceedings of the 42nd International Conference on Software Engineering (ICSE 2020)*, Seoul, South Korea, May 2020. (22% acceptance rate)

C79. Jun-Wei Lin, Reyhaneh Jabbarvand, and Sam Malek. "Test Transfer Across Mobile Apps Through Semantic Mapping." In p*roceedings of the 34th International Conference on Automated Software Engineering (ASE 2019)*, San Diego, USA, November 2019. (21% acceptance rate)

C78. Reyhaneh Jabbarvand, Jun-Wei Lin, and Sam Malek. "Search-Based Energy Testing of Android." In *proceedings of the 41st International Conference on Software Engineering (ICSE 2019)*, Montreal, Canada, May 2019. (21% acceptance rate)

C77. Negar Ghorbani, Joshua Garcia, and Sam Malek. "Detection and Repair of Architectural Inconsistences in Java." In *proceedings of the 41st International Conference on Software Engineering (ICSE 2019)*, Montreal, Canada, May 2019. (21% acceptance rate)

C76. Mahmoud Hammad, Joshua Garcia, and Sam Malek. "SALMA: Self-Protection of Android Systems from Inter-Component Communication Attacks." In *proceedings of the 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE 2018)*, Montpellier, France, September 2018. (19% acceptance rate)

C75. Hamid Bagheri, Jianghao Wang, Jarod Aerts, and Sam Malek. "Efficient, Evolutionary Security Analysis of Interacting Android Apps." In *proceedings of the 34th IEEE International Conference on Software Maintenance and Evolution (ICSME 2018)*, Madrid, Spain, September 2018. (25% acceptance rate - best paper nominee)

C74. Alireza Sadeghi, Reyhaneh Jabbarvand, Negar Ghorbani, Hamid Bagheri, and Sam Malek. "A Temporal Permission Analysis and Enforcement Framework for Android." In *proceedings of the 40th International Conference of Software Engineering (ICSE 2018*), Gothenburg, Sweden, May 2018. (21% acceptance rate).

C73. Jun-Wei Lin, Reyhaneh Jabbarvand, Joshua Garcia, and Sam Malek. "Nemo: Multi-Criteria Test-Suite Minimization with Integer Nonlinear Programming." In *proceedings of the 40th International Conference of Software Engineering (ICSE 2018), Gothenburg, Sweden, May 2018. (21% acceptance rate).*

C72. Mahmoud Hammad, Joshua Garcia, and Sam Malek. "A Large-Scale Empirical Study on the Effects of Code Obfuscations on Android Apps and Anti-Malware Products." In *proceedings of the 40th International Conference of Software Engineering (ICSE 2018), Gothenburg, Sweden, May 2018. (21% acceptance rate).*

C71. Joshua Garcia, Mahmoud Hammad, Negar Ghorbani, and Sam Malek. "Automatic Generation of Inter-Component Communication Exploits for Android Applications." In *proceedings of the 11th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2017)*, Paderborn, Germany, September 2017. (24% acceptance rate)

C70. Alireza Sadeghi, Reyhaneh Jabbarvand, and Sam Malek. "PATDroid: Permission-Aware GUI Testing of Android." In *proceedings of the 11th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2017)*, Paderborn, Germany, September 2017. (24% acceptance rate)

C69. Reyhaneh Jabbarvand and Sam Malek. "μDroid: An Energy-Aware Mutation Testing Framework for Android." In *proceedings of the 11th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2017)*, Paderborn, Germany, September 2017. (24% acceptance rate)

C68. Alireza Sadeghi, Naeem Esfahani and Sam Malek. "Mining Mobile App Markets for Prioritization of Security Assessment Effort." In *proceedings of the 2nd International Workshop on App Market Analytics*, Paderborn, Germany, September 2017.

C67. Mahmoud Hammad, Hamid Bagheri, and Sam Malek. "DELDroid: Determination and Enforcement of Least-Privilege Architecture in Android." In *proceedings of the IEEE International Conference on Software Architecture (ICSA 2017)*, Gothenburg, Sweden, April 2017. (22% acceptance rate – best paper nominee)

C66. Hamid Bagheri and Sam Malek. "Titanium: Efficient Analysis of Evolving Alloy Specifications." In *proceedings of the 24th ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2016)*, Seattle, WA, November 2016. (27% acceptance rate)

C65. Bradley Schmerl, Jeff Gennari, Alireza Sadeghi, Hamid Bagheri, Sam Malek, Javier Camara, and David Garlan. "Architecture Modeling and Analysis of Security in Android Systems." In *proceedings of the 10th European Conference on Software Architecture (ECSA 2016)*, Istanbul, Turkey, September 2016. (14% acceptance rate for full papers)

C64. Reyhaneh Jabbarvand, Alireza Sadeghi, Hamid Bagheri, and Sam Malek. "Energy-Aware Test-Suite Minimization for Android Apps." In *proceedings of the International Symposium on Software Testing and Analysis (ISSTA 2016)*, Saarbrücken, Germany, July 2016. (25% acceptance rate)

C63. Hamid Bagheri, Alireza Sadeghi, Reyhaneh Jabbarvand Behrouz, and Sam Malek. "Practical, Formal Synthesis and Autonomic Enforcement of Security Policies for Android." In *proceedings of the 46th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2016)*, Toulouse, France, June 2016. (20% acceptance rate)

C62. Nariman Mirzaei, Joshua Garcia, Hamid Bagheri, Alireza Sadeghi, and Sam Malek. "Reducing Combinatorics in GUI Testing of Android Applications." In *proceedings of the 38th International Conference on Software Engineering (ICSE 2016)*, Austin, TX, May 2016. (19% acceptance rate)

C61. Eric Yuan and Sam Malek. "Mining Software Component Interactions to Detect Security Threats at the Architectural Level." In *proceedings of the 13th Working IEEE/IFIP Conference on Software Architecture (WICSA 2016)*, Venice, Italy, April 2016. (20% acceptance rate)

C60. Nariman Mirzaei, Hamid Bagheri, Riyadh Mahmood, and Sam Malek. "SIG-Droid: Automated System Input Generation for Android Applications." In *proceedings of the 26th IEEE International Symposium on Software Reliability Engineering (ISSRE 2015)*, Gaithersburg, MD, November 2015. (19% acceptance rate)

C59. Hamid Bagheri, Eunsuk Kang, Sam Malek, and Daniel Jackson. "Detection of Design Flaws in Android Permission Protocol through Bounded Verification." In *proceedings of the 20th International Symposium on Formal Methods (FM 2015)*, Oslo, Norway, June 2015. (26% acceptance rate – best paper nominee)

C58. Ehsan Kouroshfar, Mehdi Mirakhorli, Hamid Bagheri, Lu Xiao, Sam Malek, and Yuanfang Cai. "A Study on the Role of Software Architecture in the Evolution and Quality of Software." In *proceedings of the 12th Working Conference on Mining Software Repositories (MSR 2015)*, Florence, Italy, May 2015. (30% acceptance rate)

C57. Reyhaneh Jabbarvand, Alireza Sadeghi, Joshua Garcia, Sam Malek, and Paul Ammann. "EcoDroid: An Approach for Energy-Based Ranking of Android Apps." In *proceedings of the 4th International Workshop on Green and Sustainable Software (GREENS 2015)*, Florence, Italy, May 2015.

C56. Alireza Sadeghi, Hamid Bagheri, and Sam Malek. "Analysis of Android Inter-App Security Vulnerabilities Using COVERT." In *proceedings of the 37th International Conference on Software Engineering (ICSE 2015), Demonstrations Track*, Florence, Italy, May 2015.

C55. Riyadh Mahmood, Nariman Mirzaei, and Sam Malek. "EvoDroid: Segmented Evolutionary Testing of Android Apps." In *proceedings of the 22nd ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2014)*, Hong Kong, China, November 2014. (22% acceptance rate)

C54. Sam Malek, Hamid Bagheri, and Alireza Sadeghi." Automated Detection and Mitigation of Inter-Application Security Vulnerabilities in Android." In *proceedings of the 2nd International Workshop on Software Development Lifecycle for Mobile (DeMobile 2014)*. Hong Kong, China, November 2014.

C53. Eric Yuan, Naeem Esfahani, and Sam Malek. "Automated Mining of Software Component Interactions for Self-Adaptation." In *proceedings of the 9th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2014)*, Hyderabad, India, June 2014. (19% acceptance rate – best paper nominee)

C52. Alireza Sadeghi, Naeem Esfahani, and Sam Malek. "Mining the Categorized Software Repositories to Improve the Analysis of Security Vulnerabilities." In *proceedings of the 17th International Conference on Fundamental Approaches to Software Engineering (FASE 2014)*, Grenoble, France, April 2014. (22% acceptance rate)

C51. Eric Yuan, Sam Malek, Bradley Schmerl, David Garlan, and Jeff Gennari. "Architecture-Based Self-Protecting Software Systems." In *proceedings of the 9th International ACM SIGSOFT Conference on Quality of Software Architectures (QoSA 2013)*, Vancouver, Canada, June 2013.

C50. Naeem Esfahani, Sam Malek, Kaveh Razavi. "GuideArch: Guiding the Exploration of Architectural Solution Space under Uncertainty." In *proceedings of the 35th International Conference on Software Engineering (ICSE 2013)*, San Francisco, California, May 2013. (18% acceptance rate)

C49. Kyle R. Canavera, Naeem Esfahani, and Sam Malek. "Mining the Execution History of a Software System to Infer the Best Time for its Adaptation." In *proceedings of the 20th ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2012)*, Cary, North Carolina, November 2012. (17% acceptance rate)

C48. Naeem Esfahani, Kaveh Razavi, Sam Malek. "Dealing with Uncertainty in Early Software Architecture." In *proceedings of the 20th ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2012)*, New Ideas and Emerging Results track, Cary, North Carolina, November 2012. (20% acceptance rate)

C47. Nariman Mirzaei, Sam Malek, Corina S. Păsăreanu, Naeem Esfahani, Riyadh Mahmood. "Testing Android Apps through Symbolic Execution." In *proceedings of the Java Pathfinder Workshop (JPF 2012)*, Cary, North Carolina, November 2012.

C46. Riyadh Mahmood, Naeem Esfahani, Thabet Kacem, Nariman Mirzaei, Sam Malek, and Angelos Stavrou. "A Whitebox Approach for Automated Security Testing of Android Applications on the Cloud." In *proceedings of the 7th International Workshop on Automation of Software Test (AST 2012)*, Zurich, Switzerland, June 2012.

C45. Sam Malek, Naeem Esfahani, Thabet Kacem, Riyadh Mahmood, Nariman Mirzaei, and Angelos Stavrou. "A Framework for Automated Security Testing of Android Applications on the Cloud." In *proceedings of the 6th International Conference on Software Security and Reliability (SERE 2012)*, Washington, District of Columbia, June 2012.

C44. Eric Yuan, and Sam Malek. "A Taxonomy and Survey of Self-Protecting Software Systems." In *proceedings of the* 7th *International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2012)*, Zurich, Switzerland, June 2012. (30% acceptance rate – best paper nominee)

C43. Danny Weyns, M. Usman Iftikhar, Sam Malek, and Jesper Andersson. "Claims and Supporting Evidence for Self-Adaptive Systems – A Literature Study." In *proceedings of the* 7th *International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2012)*, Zurich, Switzerland, June 2012. (30% acceptance rate)

C42. Naeem Esfahani, Ehsan Kouroshfar, and Sam Malek. "Taming Uncertainty in Self-Adaptive Software." In *proceedings of the 8th joint meeting of the European Software Engineering Conference and ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2011)*, Szeged, Hungary, September 2011. (16% acceptance rate)

C41. Pieter Vromant, Danny Weyns, Sam Malek, and Jesper Andersson. "On Interacting Control Loops in Self-Adaptive Systems." In *proceedings of the 6th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2011)*, Honolulu, Hawaii, May 2011. (27% acceptance rate)

C40. Ahmed Elkhodary, Naeem Esfahani, and Sam Malek. "FUSION: A Framework for Engineering Self-Tuning Self-Adaptive Software Systems." In *proceedings of the 18th ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2010)*, Santa Fe, New Mexico, November 2010. (20% acceptance rate)

C39. Deshan Cooray, Sam Malek, Roshanak Roshandel, and David Kilgore. "RESISTing Reliability Degradation through Proactive Reconfiguration." In *proceedings of the 25th IEEE/ACM International Conference on Automated Software Engineering (ASE 2010)*, Antwerp, Belgium, September 2010. (17% acceptance rate)

C38. Naeem Esfahani, and Sam Malek. "Utilizing Architectural Styles to Enhance Adaptation Support in Middleware Platforms." In *proceedings of the 4th European Conference on Software Architectures (ECSA 2010)*, Copenhagen, Denmark, August 2010.

C37. Deshan Cooray, Sam Malek, and Roshanak Roshandel. "Context-Driven Optimization of Mobile Service-Oriented Systems for Improving their Resilience." In *proceedings of the IEEE International Workshop on Engineering Mobile Service-Oriented Systems (EMSOS 2010)*, Miami, FL, July 2010.

C36. Danny Weyns, Sam Malek, and Jesper Andersson. “FORMS: A Formal Reference Model for Self-Adaptation.” In *proceedings of the 7th IEEE International Conference on Autonomic Computing (ICAC 2010)*, Washington, DC, June 2010. (25% acceptance rate)

C35. Daniel A. Menasce, Joao Pedro Sousa, Sam Malek, and Hassan Gomaa. “QoS Architectural Patterns for Self-Architecting Software Systems.” In *proceedings of the 7th IEEE International Conference on Autonomic Computing (ICAC 2010)*, Washington, DC, June 2010. (25% acceptance rate)

C34. Naeem Esfahani, and Sam Malek. “Social Computing Networks: A New Paradigm for Engineering Pervasive Software Systems.” In *proceedings of the 32nd International Conference on Software Engineering (ICSE 2010),* New Ideas and Emerging Results Track, Cape Town, South Africa, May 2010. (25% acceptance rate)

C33. Danny Weyns, Sam Malek, and Jesper Andersson. "On Decentralized Self-Adaptation: Lessons from the Trenches and Challenges for the Future." In *proceedings of the ICSE workshop on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2010)*, Cape Town, South Africa, May 2010.

C32. Joao Pedro Sousa, Zeynep Zengin, and Sam Malek. “Towards Multi-Design of Situated Service-Oriented Systems.” In proceedings of the ICSE workshop on Principles of Engineering Service Oriented Systems (PESOS 2010), Cape Town, South Africa, May 2010.

C31. Hassan Gomaa, Koji Hashimoto, Minseong Kim, Sam Malek, and Daniel A. Menasce. “Software Adaptation Patterns for Service-Oriented Architectures.” In *proceedings of the 25th ACM Symposium on Applied Computing (SAC 2010), Dependable and Adaptive Distributed Systems (DADS) track*, Sierre, Switzerland, March 2010. (30% acceptance rate)

C30. Daniel A. Menasce, John M. Ewing, Hassan Gomaa, Sam Malek, and Joao P. Sousa. “A Framework for Utility-Based Service Oriented Design in SASSY.” In *proceedings of the Joint WOSP/SIPEW International Conference on Performance Engineering (WOSP/SIPEW 2010)*, San Jose, California, January 2010. (25% acceptance rate)

C29. Ahmed Elkhodary, Sam Malek, and Naeem Esfahani. “On the Role of Features in Analyzing the Architecture of Self-Adaptive Software Systems.” In *proceedings of the 4th International Workshop on Models at Runtime (MRT 2009)*, Denver, Colorado, October 2009. (20% acceptance rate for full papers)

C28. Naeem Esfahani, Sam Malek, Joao Pedro Sousa, Hassan Gomaa, and Daniel A. Menasce. “A Modeling Language for Activity-Oriented Composition of Service-Oriented Software Systems.” In *proceedings of the ACM/IEEE 12th International Conference on Model Driven Engineering Languages and Systems (MODELS 2009)*, Denver, Colorado, October 2009. (16% acceptance rate)

C27. Chiyoung Seo, George Edwards, Daniel Popescu, Sam Malek, and Nenad Medvidovic. “A Framework for Estimating the Energy Consumption Induced by a Distributed System's Architectural Style.” In *proceedings of the ESEC/FSE workshop on Specification and Verification of Component-Based Systems (SAVCBS 2009)*, Amsterdam, Netherlands, August 2009.

C26. Sam Malek, Roshanak Roshandel, David Kilgore, and Ibrahim Elhag. “Improving the Reliability of Mobile Software Systems through Continuous Analysis and Proactive Reconfiguration.” In *proceedings of the International Conference on Software Engineering (ICSE 2009)*, New Ideas and Emerging Results Track, Vancouver, Canada, May 2009. (17% acceptance rate)

C25. Jesper Anderson, Rogerio de Lemos, Sam Malek, and Danny Weyns. “Reflecting on Self-Adaptive Software Systems.” In *proceedings of the ICSE 2009 Workshop on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2009)*, Vancouver, Canada, May 2009.

C24. Sam Malek, Naeem Esfahani, Danny Menasce, Joao Sousa, and Hassan Gomaa. "Self-Architecting Software Systems (SASSY) from QoS-Annotated Activity Models." In *proceedings of the ICSE 2009 Workshop on Principles of Engineering Service-Oriented Systems (PESOS 2009)*, Vancouver, Canada, May 2009. (23% acceptance rate)

C23. Chiyoung Seo, Sam Malek, and Nenad Medvidovic. "Component-Level Energy Consumption Estimation for Distributed Java-Based Software Systems." In *proceedings of the 11th International Symposium on Component Based Software Engineering (CBSE 2008)*, Karlsruhe, Germany, October 2008.

C22. Sam Malek. "Dealing with the Crosscutting Structure of Software Architectural Styles." In *proceedings of the 32nd Annual IEEE International Computer Software and Applications Conference (COMPSAC 2008)*, Turku, Finland, July 2008. (20% acceptance rate)

C21. Marija Mikic-Rakic, Sam Malek, and Nenad Medvidovic. "Architecture-Driven Software Mobility in Support of QoS Requirements." In *proceedings of the International Workshop on Software Architectures and Mobility (SAM 2008)*, Leipzig, Germany, May 2008.

C20. Roshanak Roshandel, and Sam Malek. "Refining Reliability Estimation of Mobile Software Systems." In *proceedings of the International Workshop on Software Architectures and Mobility (SAM 2008)*, Leipzig, Germany, May 2008.

C19. Chiyoung Seo, Sam Malek, and Nenad Medvidovic. "Estimating the Energy Consumption in Pervasive Java-Based Systems." In *proceedings of the 6th IEEE International Conference on Pervasive Computing and Communications (PerCom 2008)*, Hong Kong, March 2008.

C18. Sam Malek. "Effective Realization of Software Architectural Styles with Aspects." In *proceedings of the 7th Working IEEE/IFIP Conference on Software Architecture (WICSA 2008)*, Vancouver, BC, Canada, February 2008.

C17. Chiyoung Seo, George Edwards, Sam Malek, and Nenad Medvidovic. "A Framework for Estimating the Impact of a Distributed Software System's Architectural Style on its Energy Consumption." In *proceedings of the 7th Working IEEE/IFIP Conference on Software Architecture (WICSA 2008)*, Vancouver, BC, Canada, February 2008.

C16. George Edwards, Chiyoung Seo, Daniel Popescu, Sam Malek, and Nenad Medvidovic. "Self-* Software Architectures and Component Middleware in Pervasive Environments." In *proceedings of the 5th International Workshop on Middleware for Pervasive and Ad-Hoc Computing (MPAC 2007)*, Newport Beach, California, November 2007.

C15. Chiyoung Seo, Sam Malek, and Nenad Medvidovic. "An Energy Consumption Framework for Distributed Java-Based Systems." In *proceedings of the 22nd IEEE/ACM International Conference on Automated Software Engineering (ASE 2007)*, Atlanta, Georgia, November 2007.

C14. Nenad Medvidovic, and Sam Malek. "Software Deployment Architecture and Quality-of-Service in Pervasive Environments." In *proceedings of the International Workshop on the Engineering of Software Services for Pervasive Environments (ESSPE 2007)*, Dubrovnik, Croatia, September 2007.

C13. Sam Malek, Chiyoung Seo, Sharmila Ravula, Brad Petrus, and Nenad Medvidovic. "Reconceptualizing a Family of Heterogeneous Embedded Systems via Explicit Architectural Support." In *proceedings of the 29th International Conference on Software Engineering (ICSE 2007)*, Minneapolis, Minnesota, May 2007. (25% acceptance rate)

C12. Chiyoung Seo, Sam Malek, George Edwards, Nenad Medvidovic, Brad Petrus, and Sharmila Ravula. "Exploring the Role of Software Architecture in Dynamic and Fault Tolerant Pervasive

Systems." In *proceedings of the Workshop on Software Engineering of Pervasive Computing Applications, Systems and Environments (SEPCASE 07)*, Minneapolis, Minnesota, May 2007.

C11. George Edwards, Sam Malek, and Nenad Medvidovic. "Scenario-Driven Dynamic Analysis of Distributed Architectures." In *proceedings of the 10th International Conference on Fundamental Approaches to Software Engineering (FASE 2007),* Braga, Portugal, March 2007. (15% acceptance rate)

C10. Sam Malek, Chiyoung Seo, and Nenad Medvidovic. "Tailoring an Architectural Middleware Platform to a Heterogeneous Embedded Environment." In *proceedings of the 6th International Workshop on Software Engineering and Middleware (SEM 2006)*, Portland, Oregon, November 2006.

C9. Sam Malek. "A User-Centric Framework for Improving a Distributed Software System's Deployment Architecture." In *proceedings of the doctoral track at the 14th ACM SIGSOFT Symposium on Foundation of Software Engineering (FSE 2006)*, Portland, Oregon, November 2006.

C8. Sam Malek, Chiyoung Seo, Sharmila Ravula, Brad Petrus, and Nenad Medvidovic. "Providing Middleware-Level Facilities to Support Architecture-Based Development of Software Systems in Pervasive Environments." In *proceedings of the 4th International Workshop on Middleware for Pervasive and Ad-Hoc Computing (MPAC 2006)*, Melbourne, Australia, November 2006.

C7. Sam Malek, Marija Mikic-Rakic, and Nenad Medvidovic. "A Decentralized Redeployment Algorithm for Improving the Availability of Distributed Systems." In *proceedings of the 3rd International Conference on Component Deployment (CD 2005)*, Grenoble, France, November 2005.

C6. Marija Mikic-Rakic, Sam Malek, and Nenad Medvidovic. "Improving Availability in Large, Distributed, Component-Based Systems via Redeployment." In *proceedings of the 3rd International Conference on Component Deployment (CD 2005)*, Grenoble, France, November 2005.

C5. Christian Mattmann, Sam Malek, Nels Beckman, Marija Mikic-Rakic, Nenad Medvidovic, and Daniel Crichton. "GLIDE: A Grid-based Lightweight Infrastructure for Data-intensive Environments." In *proceedings of the European Grid Conference (EGC 2005)*, Amsterdam, Netherlands, February 2005.

C4. Sam Malek, Marija Mikic-Rakic, Nenad Medvidovic. "An Extensible Framework for Autonomic Analysis and Improvement of Distributed Deployment Architectures." In *proceedings of the ACM SISGSOFT Workshop on Self-Managed Systems (WOSS 2004)*, Newport Beach, California, October 2004.

C3. Marija Mikic-Rakic, Sam Malek, Nels Beckman, and Nenad Medvidovic. "A Tailorable Environment for Assessing the Quality of Deployment Architectures in Highly Distributed Settings." In *proceedings of the 2nd International Conference on Component Deployment (CD 2004)*, Edinburgh, Scotland, May 2004.

C2. Marija Mikic-Rakic, Sam Malek, Nels Beckman, and Nenad Medvidovic. "Improving Availability of Distributed Event-Based Systems via Run-Time Monitoring and Analysis." In *proceedings of the Twin Workshop on Architecting Dependable Systems (WADS 2004)*, Edinburgh, UK, May 2004, and Florence, Italy, June 2004.

C1. Nenad Medvidovic, Sam Malek, and Marija Mikic-Rakic. "Software Architectures and Embedded Systems." In *proceedings of the Monterey Workshop on Software Engineering for Embedded Systems*, Chicago, Illinois, September 24-26, 2003.

6.3 BOOK CHAPTERS

B9. Sam Malek, Hamid Bagheri, Joshua Garcia, and Alireza Sadeghi. "Security and Software Engineering." In *Handbook of Software Engineering*, Editors Kyo Chul Kang, Richard Taylor, and Sungdeok Cha, Springer, 1st edition, 2019.

B8. Danny Weyns, Nelly Bencomo, Radu Calinescu, Javier Camara, Carlo Ghezzi, Vincenzo Grassi, Larse Grunske, Paola Inverardi, Jean-Marc Jezequel, Sam Malek, Raffaela Mirandola, Marco Mori, Giordano Tamburrelli. "Perpetual Assurances for Self-Adaptive Systems." In *Software Engineering for Self-Adaptive Systems 3*, Editors R. de Lemos, D. Garlan, C. Ghezzi, and H. Giese, Lecture Notes in Computer Science, Springer, 2017.

B7. Sam Malek, Kyle Canavera, and Naeem Esfahani. "Automated Inference Techniques to Assist with the Construction of Self-Adaptive Software." In *Managing Trade-offs in Adaptable Software Architectures.* Editors I. Mistrik, N. Ali, J. Grundy, R. Kazman, and B. Schmerl. Elsevier, 2016.

B6. Naeem Esfahani, and Sam Malek. "Uncertainty in Self-Adaptive Software Systems." In *Software Engineering for Self-Adaptive Systems 2*, Editors R. de Lemos, H. Giese, H. Müller, and M. Shaw. Lecture Notes in Computer Science Hot Topics, Springer, 2013.

B5. Danny Weyns, Bradley Schmerl, Vincenzo Grassi, Sam Malek, Raffaela Mirandola, Christian Prehofer, Jochen Wuttke, Jesper Andersson, Holger Giese, and Karl Goschka. "On Patterns for Decentralized Control in Self-Adaptive Systems." In *Software Engineering for Self-Adaptive Systems 2*, Editors R. de Lemos, H. Giese, H. Müller, and M. Shaw. Lecture Notes in Computer Science Hot Topics, Springer, 2012.

B4. Rogerio de Lemos, Holger Giese, Hausi Muller, Mary Shaw, Jesper Andersson, Luciano Baresi, Basil Becker, Nelly Bencomo, Yuriy Brun, Bojan Cikic, Ron Desmarais, Schahram Dustdar, Gregor Engels, Kurt Geihs, Karl M. Goeschka, Alessandra Gorla, Vincenzo Grassi, Poala Inverardi, Gabor Karsai, Jeff Kramer, Marin Litoiu, Antonia Lopes, Jeff Magee, Sam Malek, Serge Mankovskii, Raffaela Mirandola, John Mylopoulos, Oscar Nierstrasz, Mauro Pezze, Christian Prehofer, Wilhelm Schafer, Wilhelm Schlichting, Bradley Schmerl, Dennis B. Smith, Joao P. Sousa, Gabriel Tamura, Ladan Tahvildari, Norha M. Villegas, Thomas Vogel, Danny Weyns, Kenny Wong, Jochen Wuttke. "Software Engineering for Self-Adaptive Systems: A second Research Roadmap." In *Software Engineering for Self-Adaptive Systems 2,* Editors R. de Lemos, H. Giese, H. Müller, and M. Shaw. Lecture Notes in Computer Science Hot Topics, Springer, 2012.

B3. Jesper Andersson, Rogerio de Lemos, Sam Malek, and Danny Weyns. "Modeling Dimensions of Self-Adaptive Software Systems." In *Software Engineering for Self-Adaptive Systems,* Editors B. H. C. Cheng, R. de Lemos, H. Giese, P. Inverardi, and J. Magee, Lecture Notes in Computer Science Hot Topics, Springer, 2009.

B2. Betty H. C. Cheng, Rogério de Lemos, Holger Giese, Paola Inverardi, Jeff Magee, Jesper Andersson, Basil Becker, Nelly Bencomo, Yuriy Brun, Bojan Cukic, Giovanna Di Marzo Serugendo, Schahram Dustdar, Anthony Finkelstein, Cristina Gacek, Kurt Geihs, Vincenzo Grassi, Gabor Karsai, Holger M. Kienle, Jeff Kramer, Marin Litoiu, Sam Malek, Raffaela Mirandola, Hausi A. Müller, Sooyong Park, Mary Shaw, Matthias Tichy, Massimo Tivoli, Danny Weyns, Jon Whittle. "Software Engineering for Self-Adaptive Systems: A Research Roadmap." In *Software Engineering for Self-Adaptive Systems*, Editors B. H. C. Cheng, R. de Lemos, H. Giese, P. Inverardi, and J. Magee, Lecture Notes in Computer Science, Springer, 2009.

B1. Sam Malek, Nels Beckman, Marija Mikic-Rakic, and Nenad Medvidovic. "A Framework for Ensuring and Improving Dependability in Highly Distributed Systems." In *Architecting Dependable Systems III*, Editors R. de Lemos, C. Gacek, and A. Romanowski, Springer Verlag, October 2005.

6.4 EDITED BOOKS AND JOURNALS

E2. Danny Weyns, Sam Malek, Jesper Andersson, and Bradley Schmerl. "Introduction to the Special Issue on the State of the Art in Engineering Self-Adaptive Software Systems." Journal of Systems and Software (JSS), Vol. 85, No. 12, pages 2675-2677, December 2012.

E1. Danny Weyns, Sam Malek, Rogerio de Lemos, and Jesper Andersson, eds. "Self-Organizing Architectures." *Lecture Notes in Computer Science (LNCS)*, Springer Verlag, Vol. 6090, 300 pages, September 2009. ISBN: 978-3-642-14411-0

6.5 DISSERTATION

- Sam Malek. "A User-Centric Approach for Improving a Distributed Software System's Deployment Architecture." PhD thesis. Computer Science Department, University of Southern California, 2007.

7 TEACHING

7.1 UNIVERSITY OF CALIFORNIA, IRVINE

- **INF 117 – Projects in Software System Design**
  Terms: Fall 2020, Fall 2021, Fall 2022
  Upper-division undergraduate course for several majors within ICS

- **INF 124 / CompSci 137 – Internet Applications Engineering**
  Terms: Spring 2016, Spring 2017, Spring 2018, Spring 2019, Spring 2021, Spring 2022
  Upper-division undergraduate course for several majors within ICS

- **SWE 221 – Software Architecture**
  Terms: Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2022
  Graduate-level core course for Software Engineering M.S. and Ph.D. students

- **SWE 264P – Distributed Software Architecture**
  Terms: Winter 2020, Winter 2021, Winter 2022, Winter 2023
  Graduate-level core course for Software Engineering MSWE student

- **INF 291S – Literature Survey in Software Engineering**
  Terms: Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020
  Graduate-level seminar course for Software Engineering M.S. and Ph.D. students

7.2 GEORGE MASON UNIVERSITY

- **SWE 699 / CS 795 / IT 821 – Software Architecture Research Issues**
  Terms taught: Spring 2010
  Graduate-level elective course for M.S. and Ph.D. level students

- **SWE 699 / CS 795 / IT 821 – Service-Oriented Architecture**
  Terms taught: Spring 2009, Fall 2011
  Graduate-level elective course for M.S. and Ph.D. level students

- **SWE 622 – Distributed Software Engineering**

Terms taught: Fall 2007, Spring 2008, Fall 2008, Fall 2009, Spring 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Spring 2014
Graduate-level core course for the M.S. degree in Software Engineering

- **SWE 443 – Software Architectures**
  Terms taught: Spring 2013
  Upper-division undergraduate course for BS CS and BS ACS majors

7.3 UNIVERSITY OF SOUTHERN CALIFORNIA

- **CS 589 – Software Engineering for Embedded Systems**
  Teaching Assistant, Fall 2003; Guest Lecturer, Fall 2004-2006

- **CS 377 – Introduction to Software Engineering**
  Guest Lecturer, Fall 2006

8 SUPERVISED STUDENTS AND RESEARCHERS

8.1 POSTDOCTORAL ASSOCIATES

ALUMNI

- Joshua Garcia
  July 2014 – June 2018
  First employment: Assistant Professor, University of California Irvine
- Hamid Bagheri
  September 2013 – August 2016
  First employment: Assistant Professor, University of Nebraska Lincoln
- Yonghee Shin
  August 2012 – May 2013
  First employment: Folio Investing

8.2 DOCTORAL DISSERTATION COMMITTEE CHAIR

CURRENT

- Abdulaziz Alshayban
  Status: passed topic proposal
- Forough Mehralian
  Status: advanced to candidacy
- Syed Fatiul Huq
  Status: started in Fall 2021

ALUMNI

- Navid Salehnamadi
  Graduation date: December 2022
  First employment: Tesla

- Negar Ghorbani
  Graduation date: August 2022
  First employment: Meta
- Jun-Wei Lin
  Graduation date: August 2021
  First employment: MGM Resort International
- Reyhaneh Jabbarvand
  Graduation date: June 2020
  First employment: Assistant Professor, University of Illinois Urbana-Champaign
- Mahmoud Hammad
  Graduation date: August 2018
  First employment: Assistant Professor, Jordan University of Science and Technology
- Alireza Sadeghi
  Graduation date: December 2017
  Dissertation title: Efficient Permission-Aware Analysis of Android Apps
  First employment: Google Inc.
- Nariman Mirzaei
  Graduation date: August 2016
  Dissertation title: Automated Input Generation Techniques for Testing Android Applications
  First employment: Videology
- Ehsan Kouroshfar
  Graduation date: May 2016
  Dissertation title: An Empirical Study of the Interplay Between Architecture and Software Quality Using Evolutionary History of Software
  First employment: Appian Corporation
- Eric Yuan
  Graduation date: May 2016
  Dissertation title: Architecture-Based Self-Protecting Software Systems
  First employment: Aerospace Corporation
- Riyadh Mahmood
  Graduation date: May 2015
  Dissertation title: An Evolutionary Approach for System Testing of Android Applications
  First employment: Harris Corporation
- Naeem Esfahani
  Graduation date: August 2014
  Dissertation title: Management of Uncertainty in Self-Adaptive Software
  First employment: Google Inc.
- Ahmed Elkhodary
  Graduation date: December 2011
  Dissertation title: A Learning-Based Approach for Engineering Feature-Oriented Self-Adaptive Software Systems
  First employment: U.S. Securities and Exchange Commission

8.3 MASTERS DISSERTATION COMMITTEE CHAIR

CURRENT

- Ziyao He
  Graduation date: TBD
  Dissertation title: TBD
- Pooja Naresh Bhatia
  Graduation date: TBD
  Dissertation title: TBD

ALUMNI

- Faraz Yazdani
  Graduation date: August 2020
  Dissertation title: Deep-GUI: Towards Platform-Independent UI Input Generation with Deep Reinforcement Learning
- Deshan A. Cooray
  Graduation date: August 2010
  Dissertation title: Resisting Reliability Degradation through Proactive Reconfiguration
  First employment: Verisign Inc.

8.4 DOCTORAL ADVANCEMENT AND DISSERTATION COMMITTEE MEMBER

• Yuqi Huai	Advisor: Joshua Garcia	UCI	2022
• Yasaman Razeghi	Advisor: Sameer Singh	UCI	2022
• Andrew Truelove	Advisor: Iftekhar Ahmed	UCI	2021
• Jiri Gesi	Advisor: Iftekhar Ahmed	UCI	2021
• Arda Unal	Advisor: Joshua Garcia	UCI	2021, 2022
• Zhihao Yao	Advisor: Ardalan Amir Sani	UCI	2020
• Farnaz Behrang	Advisor: Alessandro Orso	Georgia Tech	2020
• Farima Farmahinifarahani	Advisor: Cristina Lopes	UCI	2019, 2022
• Sumaya Almanee	Advisor: Joshua Garcia	UCI	2019, 2022
• Seyed Mohammad Seyed Talebi	Advisor: Ardalan Amir Sani	UCI	2019
• Yingtong Liu	Advisor: Ardalan Amir Sani	UCI	2019
• Julian Lettner	Advisor: Michael Franz	UCI	2018
• Vaibhav Saini	Advisor: Cristina Lopes	UCI	2018
• Di Yang	Advisor: Cristina Lopes	UCI	2019
• Rohan Achar	Advisor: Cristina Lopes	UCI	2019, 2020
• Yang Feng	Advisor: James Jones	UCI	2019
• Alexios Voulimeneas	Advisor: Michael Franz	UCI	2018
• Gabriel Moreno	Advisor: David Garlan	CMU	2017
• Hsin-Chung Chen	Advisor: Pai Chou	UCI	2016
• Jing Guan	Advisor: Jeff Offutt	GMU	2015

• John D. Mcdowall	Advisor: Larry Kerschberg	GMU	2014
• Quyen L. Nguyen	Advisor: Arun Sood	GMU	2014
• Nan Li	Advisor: Jeff Offutt	GMU	2014
• Ahmed Abu Jbara	Advisor: Alexander Levis	GMU	2013
• Antti Evesti	Advisor: Jukka Riekki	U. of Oulu	2013
• Sander van der Burg	Advisor: Eelco Visser	Delft U.	2013
• Zhaohui Wang	Advisor: Angelos Stavrou	GMU	2012
• Julie Street, 2011	Advisor: Hassan Gomaa	GMU	2011
• Mohammad Abu-Matar	Advisor: Hassan Gomaa	GMU	2011

8.5 MASTERS DISSERTATION COMMITTEE MEMBER

• Canyang Shi	Advisor: Joshua Garcia	UCI	2022
• Aaron Matthews	Advisor: Joshua Garcia	UCI	2021
• Xiaochen Yu	Advisor: Cristina Lopes	UCI	2021
• Shrijith Venkatramana	Advisor: Cristina Lopes	UCI	2021
• Thomas Kwak	Advisor: Andre van der Hoek	UCI	2017
• Andrea Renika Souza	Advisor: Cristina Lopes	UCI	2016
• Xiang Shen	Advisor: Joao Sousa	GMU	2013
• Muhammad Faraz Rafi	Advisor: Alexander Levis	GMU	2010
• Koji Hashimoto	Advisor: Hassan Gomaa	GMU	2010

9 FORMAL PRESENTATIONS

P56. *Invited talk — Test of Time Award: FUSION: a Framework for Engineering Self-Tuning Self-Adaptive Software Systems*, 27th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE), Sacramento, CA, November 2020.

P55. *Invited talk — The Threat in Your Pocket: Trends, Challenges, and Solutions in Mobile Application Security*, ACM OC Chapter, Irvine, CA, May 2020.

P54. *Invited talk — Mining Architectural Information to Stem Technical Debt,* Google, Venice, CA, June 2019.

P53. *Invited talk — Mobile Application Security*. CPRI-ISR IoT Security Symposium, Irvine, CA, May 2019.

P52. *Invited talk — Testing and Analysis Techniques for Improving the Quality of Android Apps.* Google, Mountain View, CA, March 2019.

P51. *Keynote — The Threat in Your Pocket: Trends, Challenges, and Solutions in Mobile Application Security*. 25th Australasian Software Engineering Conference (ASWEC) and Australasian Software Week (ASW), November 2018.

P50. *Advancing Energy Testing of Android Apps.* Futurewei Academia Test Forum. Dallas, TX, September 2018.

P49. *Missteps in Framework Design: Consequences and Solutions.* Institute for Software Research Forum, UC Irvine, June 2018.

P48. *Mining Mobile App Markets for Prioritization of Security Assessment Effort.* International Workshop on App Market Analytics (WAMA 2017), Paderborn, Germany, September 2017.

P47. *Tools for Automated Detection and Assessment of Security Vulnerabilities in Mobile Applications.* Department of Homeland Security's Cyber Security Division R&D Showcase and Technical Workshop, Washington DC, July 2017.

P46. *Keynote — Android Security from a Software Architectural Perspective*. IEEE International Conference on Software Architecture (ICSA 2017), Gothenburg, Sweden, April 2017.

P45. *Energy-Aware Test-Suite Minimization for Android Apps.* International Symposium on Software Testing and Analysis (ISSTA 2016), Saarbrücken, Germany, July 2016.

P44. *Mobile App Security: Detection and Family Identification of the Malice in your Pocket*. Institute for Software Research Forum, UC Irvine, May 2016.

P43. *Detection and Family Identification of Android Malware.* Department of Homeland Security's Cyber Security Division R&D Showcase and Technical Workshop, Washington, DC, February 2016.

P42. *SIG-Droid: Automated System Input Generation for Android Applications.* 26th IEEE International Symposium on Software Reliability Engineering (ISSRE 2015), Gaithersburg, MD, November 2015.

P41. *Detection and Family Identification of Android Malware.* NII Shonan Meeting – Mobile App Store Analytics, Kanagawa, Japan, October 2015.

P40. *Automated Detection of Android Inter-Application Vulnerabilities*. DHS SWAMP/SQA PI meeting, Atlanta, May 2015.

P39. *A Tool for Automated Detection of Inter-Application Security Vulnerabilities in Android*. National Security Agency, College Park, Maryland, March 2015.

P38. *Automated Analysis and Testing of Mobile Software.* University of California Irvine. Computer Science Department. March 2015.

P37. *Automated Analysis and Testing of Mobile Software.* University of Southern California. Computer Science Department. February 2015.

P36. *Automated Analysis and Testing of Mobile Software.* College of William and Mary. Computer Science Department. February 2015.

P35. *Automated Analysis and Testing of Mobile Software*. George Mason University. Computer Science Department. February 2015.

P34. *Invited Talk — Automated Detection and Mitigation of Inter-Application Security Vulnerabilities in Android*. 2nd International Workshop on Software Development Lifecycle for Mobile. Hong Kong, China, November 2014.

P33. *Automated Mining of Software Component Interactions for Self-Adaptation.* 9th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2014). Hyderabad, India, June 2014.

P32. *Keynote — Toward the Making of Software that Learns to Manage Itself.* 27th Brazilian Symposium on Software Engineering (SBES 2013), Brasilia, Brazil, October 2013.

P31. *Invited Speaker — Automated Security Testing of Mobile Applications*. FedMobileCamp hosted by NGA/InnoVision, Reston, VA, August 2013.

P30. *Invited Talk — A Framework for Improving a Distributed Software System's Deployment Architecture*. Delft University of Technology, Delft, Netherlands, June 2013.

P29. *Keynote — The Secret Sauce for Succeeding in your PhD Research and Beyond.* 35th International Conference on Software Engineering (ICSE 2013), Doctoral Symposium track, San Francisco, CA, May 2013.

P28. *Automated Security Testing and Analysis of Smartphone Applications.* National Security Agency, George Mason University, Fairfax, VA, August 2012

P27. *Automated Security Testing of Android Applications for the Military App Store*. DARPA Computer Science Study Panel, Arlington, VA, April 2012

P26. *Invited Talk — Guided Exploration of the Architectural Solution Space in the Face of Uncertainty*. Lockheed Martin Architects Workshop, Littleton, Colorado, August 2011

P25. *Taming Uncertainty in Self-Adaptive Software.* 8th joint meeting of the European Software Engineering Conference and ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2011), Szeged, Hungary, September 2011

P24. *Invited Talk — Engineering Self-Adaptive Software Systems.* Virginia Polytechnic Institute and State University, Falls Church, VA, February 2011

P23. *Invited Talk — Engineering Self-Adaptive Software Systems*. Sharif University, Tehran, Iran, December 2010

P22. *FUSION: A Framework for Engineering Self-Tuning Self-Adaptive Software Systems.* 18th ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2010), Santa Fe, NM, November 2010

P21. *Reliability Degradation through Proactive Reconfiguration.* 25th IEEE/ACM International Conference on Automated Software Engineering (ASE 2010), Antwerp, Belgium, September 2010

P20. *Utilizing Architectural Styles to Enhance Adaptation Support in Middleware Platforms.* 4th European Conference on Software Architectures (ECSA 2010), Copenhagen, Denmark, August 2010

P19. *Context-Driven Optimization of Mobile Service-Oriented Systems for Improving their Resilience.* IEEE International Workshop on Engineering Mobile Service-Oriented Systems (EMSOS 2010), Miami, FL, July 2010

P18. *Social Computing Networks: A New Paradigm for Engineering Pervasive Software Systems.* 32nd International Conference on Software Engineering (ICSE 2010), New Ideas and Emerging Results Track, Cape Town, South Africa, May 2010

P17. *Self-Architecting Software Systems (SASSY) from QoS-Annotated Activity Models.* International Workshop on Principles of Engineering Service Oriented Systems (PESOS 2009), Vancouver, Canada, May 2009

P16. *Component-Level Energy Consumption Estimation for Distributed Java-Based Software Systems.* International Symposium on Component Based Software Engineering (CBSE 2008), Karlsruhe, Germany, October 2008

P15. *Dealing with the Crosscutting Structure of Software Architectural Styles.* IEEE International Computer Software and Applications Conference (COMPSAC), Turku, Finland, July 2008

P14. *Architecture-Driven Software Mobility in Support of QoS Requirements*. International Workshop on Software Architectures and Mobility (SAM), Leipzig, Germany, May 2008

P13. *Effective Realization of Software Architectural Styles with Aspects.* Working IEEE/IFIP Conference on Software Architecture (WICSA 2008), Vancouver, BC, Canada, February 2008

P12. *A Framework for Estimating the Impact of a Distributed Software System's Architectural Style on its Energy Consumption*. Working IEEE/IFIP Conference on Software Architecture (WICSA 2008), Vancouver, BC, Canada, February 2008

P11. *Architecture-Driven Software Mobility in Support of QoS Requirements*. Dagstuhl Seminar 08031 on Software Engineering for Self-Adaptive Systems, Saarbrucken, Germany, January 2008

P10. *Reconceptualizing a Family of Heterogeneous Embedded Systems via Explicit Architectural Support*. International Conference on Software Engineering (ICSE 2007), Minneapolis, Minnesota, May 2007

P9. *A User-Centric Framework for Improving a Distributed Software System's Deployment Architecture.* Doctoral track of the Symposium on Foundations of Software Engineering (FSE 2006), Portland, Oregon, November 2006

P8. *Tailoring an Architectural Middleware Platform to a Heterogeneous Embedded Environment.* International Workshop on Software Engineering and Middleware (SEM 2006), Portland, Oregon, November 2006

P7. *A Decentralized Redeployment Algorithm for Improving the Availability of Distributed Systems*. International Conference on Component Deployment (CD 2005), Grenoble, France, November 2005

P6. *Improving Availability in Large, Distributed, Component-Based Systems via Redeployment.* International Conference on Component Deployment (CD 2005), Grenoble, France, November 2005

P5. *A User-Centric Approach for Improving a Distributed Software System's Deployment Architecture*. USC Center for Software Engineering Annual Research Review, Los Angeles, California, March 2005

P4. *An Extensible Framework for Autonomic Analysis and Improvement of Distributed Deployment Architectures*. ACM SISGSOFT Workshop on Self-Managed Systems (WOSS 2004), Newport Beach, California, October 2004

P3. *A Tailorable Environment for Assessing the Quality of Deployment Architectures in Highly Distributed Settings*. Second International Conference on Component Deployment (CD 2004), Edinburgh, Scotland, May 2004

P2. *Improving Availability of Distributed Event-Based Systems via Run-Time Monitoring and Analysis.* Workshop on Architecting Dependable Systems (WADS 2004) held in conjunction with the International Conference on Software Engineering (ICSE 2004), Edinburgh, Scotland, May 2004

P1. *Improving System Availability in Distributed Environments.* USC Center for Software Engineering Annual Research Review, Los Angeles, CA, March 2004

10 PROFESSIONAL SERVICE

10.1 EDITORIAL BOARDS AND STEERING COMMITTEES

E6. Associate Editor, ACM Transactions on Software Engineering and Methodology (March 2018 – present)

E5. Associate Editor, ACM Transactions on Autonomous and Adaptive Systems (Nov 2017 – present)

E4. Associate Editor, Springer Computing Journal
(February 2011 – present)

E3. Member, Steering Committee, IEEE International Conference on Software Architecture
(April 2019 – May 2022)

E2. Member, Steering Committee, International Symposium on Software Engineering for Adaptive and Self-Managing Systems
(June 2015 – May 2019)

E1. Associate Editor, IEEE Transactions on Software Engineering
(February 2014 – February 2018)

10.2 CONFERENCE AND WORKSHOP ORGANIZATION

O31. Workshop Co-Chair, International Conference on Software Engineering (ICSE 2023), Melbourne, Australia, May 2023

O30. Co-Organizer, 4th International Workshop on Advances in Mobile App Analysis (A-Mobile 2021), Ann Arbor, Michigan, October 2022

O29. Sponsorship Co-Chair, International Conference on Software Engineering (ICSE 2022), Pittsburgh, PA, May 2022

O28. Co-Organizer, 4th International Workshop on Advances in Mobile App Analysis (A-Mobile 2021), Melbourne, Australia, November 2021

O27. Co-Organizer, 3rd International Workshop on Advances in Mobile App Analysis (A-Mobile 2020), Melbourne, Australia, September 2020

O26. Technical Briefings Co-Chair, 42nd International Conference on Software Engineering (ICSE 2020), Seoul, South Korea, May 2020

O25. Program Co-Chair, IEEE International Conference on Software Architecture (ICSA 2020), Salvador, Brazil, March 2020

O24. Co-Organizer, 2nd International Workshop on Advances in Mobile App Analysis (A-Mobile 2019), San Diego, CA, November 2019

O23. Co-Organizer, 2nd International Workshop on Establishing a Community-Wide Infrastructure for Architecture-Based Software Engineering (ECASE 2019), Montreal, Canada, May 2019

O22. Co-Organizer, International Workshop on Advances in Mobile App Analysis (A-Mobile 2018), Montpellier, France, September 2018

O21. Program Co-Chair, 5th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MobileSoft 2018), Visions Track, Gothenburg, Sweden, May 2018

O20. Co-Organizer, NSF Sponsored Workshop on Infrastructures and Instruments for Software Architecture (REINFORCE), Urbana-Champaign, Illinois, October 2017

O19. Program Co-Chair, 11th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2017), Tucson, Arizona, September 2017

O18. Awards Chair, 39th International Conference on Software Engineering (ICSE 2016), Buenos Aires, Argentina, May 2017

O17. Program Co-Chair, International Workshop on Establishing the Community-Wide Infrastructure for Architecture-Based Software Engineering (ECASE 2017), Buenos Aires, Argentina, May 2017

O16. Program Chair, 11th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2016), Austin, Texas, May 2016

O15. Tutorial Co-Chair, 10th Joint Meeting of European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE 2015), Bergamo, Italy, August 2015

O14. Proceedings Chair, 22nd International Symposium on the Foundations of Software Engineering (FSE 2014), Hong Kong, China, November 2014

O13. Tutorial Chair, 11th Working IEEE/IFIP Conference on Software Architecture (WICSA 2014), Sydney, Australia, April 2014

O12. Program Chair, 4th ACM SIGSOFT International Symposium on Architecting Critical Systems (ISARCS 2013), Vancouver, Canada, June 2013

O11. Internet Chair, 35th International Conference on Software Engineering (ICSE 2013), San Francisco, California, May 2013

O10. Publicity Chair, 6th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2012), Lyon, France, September 2012

O9. Workshop Chair, Joint 10th Working IEEE/IFIP Conference on Software Architecture (WICSA 2012) and 6th European Conference on Software Architecture (ECSA 2012), Helsinki, Finland, August 2012

O8. Publicity Chair, 5th International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2011), Ann Arbor, Michigan, October 3-7 2011

O7. Posters Chair, 33rd International Conference on Software Engineering (ICSE 2011), Honolulu, Hawaii, May 21-28, 2011

O6. Co-editor, special issue of the Journal of Systems and Software on "State of the Art in Self-Adaptive Software Systems", tentative publication date of December 2011

O5. North America Regional Editor, International Journal of Software Architecture, 2010-2014

O4. Co-Organizer, ICAC International Workshop on Self-Organizing Architectures (SOAR 2010), Cambridge, UK, June 7, 2010

O3. Co-editor, "Self-Organizing Architectures", Lecture Notes in Computer Science, Springer Verlag, vol. 6090, 300 pages, September 2009, ISBN: 978-3-642-14411-0

O2. Co-Organizer, WICSA/ECSA International Workshop on Self-Organizing Architectures (SOAR 2009), Cambridge, UK, Sep 14, 2009

O1. GMU Software Engineering Seminar Series, 2007- 2015
http://cs.gmu.edu/~smalek/seminar.html

10.3 PROGRAM COMMITTEE AND PANEL MEMBERSHIP

S120. Program Committee Member, 46th International Conference on Software Engineering (ICSE 2014), Lisbon, Portugal, April 2024.

S119. Program Committee Member, 22nd ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2023), San Francisco, CA, November 2023.

S118. Program Committee Member, 10th International Conference on Mobile Software Engineering and Systems (MobileSoft 2023), Melbourne, Australia, May 2023

S117. Program Committee Member, 20th IEEE International Conference on Software Architecture (ICSA 2023), L'aquila, Italy, March 2023.

S116. Program Committee Member, 21st ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2022), Singapore, November 2022

S115. Program Committee Member, 37th IEEE/ACM International Conference on Automated Software Engineering (ASE 2022), Ann Arbor, Michigan, October 2022

S114. Program Committee Member, 44th International Conference on Software Engineering, Doctoral Symposium (ICSE-DS 2022), Pittsburgh, PA, May 2022

S113. Program Committee Member, 17th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2022), Pittsburgh, PA, May 2022

S112. Program Committee Member, 19th IEEE International Conference on Software Architecture (ICSA 2022), Honolulu, Hawaii, March 2022

S111. Program Committee Member, ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2021), Athens, Greece, August 2021

S110. Program Committee Member, International Conference on Software Engineering Journal First track (ICSE-JF 2021), , Madrid, Spain, May 2021

S109. Program Committee Member, 8th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESOFT 2021), Madrid, Spain, May 2021

S108. Panelist, National Science Foundation, May 2021

S107. Program Committee Member, 4th International Workshop on User Interface Test Automation and Testing Techniques for Event-Based Software (INTUITESTBEDS 2021), Porto de Galinha, Brazil, April 2021

S106. Program Committee Member, 18th IEEE International Conference on Software Architecture (ICSA 2021), Stuttgart, Germany, March 2021

S105. Program Committee Member, Language and Tools for Next Generation Testing Workshop (LANGETI 2020), Sacramento, CA, November 2020

S104. Program Committee Member, 11th International Workshop on Automated Software Testing (A-Test 2020), Sacramento, CA, November 2020

S103. Program Committee Member, 15th European Conference on Software Architecture (ECSA 2020), L'Aquila, Italy, September 2020

S102. Editor-in-Chief ACM Transactions on Autonomous and Adaptive Systems Search Committee Member, September 2020

S101. Program Committee Member, 3rd International Conference on Science of Cyber Security (SciSec 2020), Shanghai, China, August 2020

S100. Program Committee Member, 42nd ACM/IEEE International Conference on Software Engineering (ICSE 2020), Seoul, South Korea, May 2020

S99. Program Committee Member, 3rd International Workshop on User Interface Test Automation and Testing Techniques for Event-Based Software (INTUITESTBEDS 2020), Porto, Portugal, March 2020

S98. Program Committee Member, 2nd International Workshop on Software Security from Design to Deployment (SEAD 2019), San Diego, CA, November 2019

S97. Program Committee Member, 14th European Conference on Software Architecture (ECSA 2019), Paris, France, September 2019

S96. Program Committee Member, 10th International Workshop on Automated Software Testing (A-Test 2019), Tallinn, Estonia, August 2019

S95. Program Committee Member, 2nd International Conference on Science of Cyber Security (SciSec 2019), Nanjing, China, August 2019

S94. Program Committee Member, 41st ACM/IEEE International Conference on Software Engineering (ICSE 2019), Montreal, Canada, May 2019

S93. Program Committee Member, 6th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESOFT 2019), Montreal, Canada, May 2019

S92. Program Committee Member, 14th Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2019), Doctoral Track, Montreal, Canada, May 2019

S91. Program Committee Member, 1st International Workshop on Self-Protecting Systems (SPS 2019), Umea, Sweden, April 2019

S90. Program Committee Member, 2nd International Workshop on User Interface Test Automation and Testing Techniques for Event-Based Software (INTUITESTBEDS 2019), Xi'an, China, April 2019

S89. Program Committee Member, IEEE International Conference on Software Architecture (ICSA 2019), Hamburg, Germany, March 2019.

S88. Program Committee Member, 26th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2018), Lake Buena Vista, Florida, November 2018

S87. Program Committee Member, 1st International Workshop on Architectural Knowledge for Self-Adaptive Systems (AKSAS 2018), Madrid, Spain, September 2018

S86. Program Committee Member, 12th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems (WDES 2018), Madrid, Spain, September 2018

S85. Program Committee Member, 12th IEEE International Conference on Adaptive and Self-Organizing Systems (SASO 2018), Trento, Italy, September 2018

S84. Program Committee Member, 12th European Conference on Software Architecture (ECSA 2018), Madrid, Spain, September 2018

S83. Program Committee Member, 12th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems (WDES 2018), Madrid, Spain, September 2018

S82. Program Committee Member, 1st International Workshop on Architecture Knowledge for Self-Adaptive Systems (AKSAS 2018), Madrid, Spain, September 2018

S81. Program Committee Member, 4th International Workshop on User-Interface Test Automation and 8th International Workshop on Testing Techniques for Event-based Software (INTUITESTBEDS 2018), Amsterdam, Netherlands, July 2018

S80. Program Committee Member, 40th International Conference on Software Engineering (ICSE 2018), Demonstrations Track, Gothenburg, Sweden, May 2018

S79. Program Committee Member, 40th International Conference on Software Engineering (ICSE 2018), Software Engineering in Society Track, Gothenburg, Sweden, May 2018

S78. Program Committee Member, 5th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESOFT 2018), Gothenburg, Sweden, May 2018

S77. Program Committee Member, 13th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2018), Gothenburg, Sweden, May 2018

S76. Program Committee Member, 1st International Workshop on Security Awareness from Design to Deployment (SEAD 2018), Gothenburg, Sweden, May 2018

S75. Program Committee Member, IEEE International Conference on Software Architecture (ICSA 2018), Seattle, USA, April 2018

S74. Program Committee Member, 11th European Conference on Software Architecture (ECSA 2017), Canterbury, UK, September 2017

S73. Program Committee Member, 2nd Workshop on Engineering Collective Adaptive Systems (eCAS 2017), Tucson, Arizona, September 2017

S72. Search Committee Member, Editor in Chief Search Committee for the ACM Transactions on Autonomous and Adaptive Systems, January 2017-June 2017

S71. Program Committee Member, 4th IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESOFT 2017), Buenos Aires, Argentina, May 2017

S70. Program Committee Member, 39th International Conference on Software Engineering (ICSE 2017), Buenos Aires, Argentina, May 2017

S69. Program Committee Member, Joint 5th International Workshop on Software Engineering for Systems-of-Systems and 11th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems (SESOS/WDES 2017), Buenos Aires, Argentina, May 2017

S68. Program Committee Member, 12th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2017), Buenos Aires, Argentina, May 2017

S67. Program Committee Member, International Conference on Software Architecture (ICSA 2017), Gothenburg, Sweden, April 2017

S66. Program Committee Member, International Workshop on App Market Analytics (WAMA 2016), Seattle, WA, November 2016

S65. NSF Panel Member, Computing and Communication Foundations, Arlington, VA, September 2016

S64. Program Committee Member, 10th International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2016), Augsburg, Germany, September 2016

S63. Program Committee Member, 10th European Conference on Software Architecture (ECSA 2016), Istanbul, Turkey, September 2016

S62. Program Committee Member, 13th IEEE International Conference on Autonomic Computing (ICAC 2016), Wurzburg, Germany, July 2016

S61. Program Committee Member, 38th International Conference on Software Engineering (ICSE 2016), Workshop Proposals, Austin, Texas, May 2016

S60. Program Committee Member, IEEE/ACM International Conference on Mobile Software Engineering and Systems (MOBILESoft 2016), Doctoral Symposium, Austin, Texas, May 2016

S59. Program Committee Member, International Workshop on Bringing Architecture Design Thinking into Developers' Daily Activities (BRIDGE 2016), Austin, Texas, May 2016

S58. Program Committee Member, 4th International Workshop on Software Engineering for System-of-Systems (SESoS 2016), Austin, Texas, May 2016

S57. Program Committee Member, Symposium and Bootcamp on the Science of Security (HotSoS 2016), Pittsburgh, PA, April 2016

S56. Program Committee Member, 13th Working IEEE/IFIP Conference on Software Architecture (WICSA 2016) and 10th Federated Conference Series on Component-Based Software Engineering and Software Architecture (CompArch 2016), Venice, Italy, April 2016

S55. Program Committee Member, 3rd International Workshop on Software Development Lifecycle for Mobile (DeMobile 2015), Bergamo, Italy, August 2015

S54. Program Committee Member, 9th European Conference on Software Architecture (ECSA 2015), Dubrovnik, Croatia, September 2015

S53. Program Committee Member, 9th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2015), Cambridge, MA, September 2015

S52. Program Committee Member, 19th International Software Product Line Conference (SPLC 2015): New Directions in Systems and Software Product Line Engineering, Nashville, TN, July 2015

S51. Program Committee Member, Symposium and Bootcamp on the Science of Security (HotSoS 2015), Urbana-Champaign, IL, April 2015

S50. Program Committee Member, 37th International Conference on Software Engineering (ICSE 2015), Florence, Italy, May 2015

S49. NSF Panel Member, Computing and Communication Foundations, Arlington, VA, May 2015.

S48. Program Committee Member, 12th Working IEEE/IFIP Conference on Software Architecture (WICSA 2015), Montreal, Canada, May 2015

S47. Program Committee Member, 10th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2015), Florence, Italy, May 2015

S46. Program Committee Member, 9th International Workshop on Models at Runtime (MRT 2014), Valencia, Spain, September 2014

S45. Program Committee Member, 5th Testing Techniques and Experimentation Benchmarks for Event-Driven Software (TESTBEDS 2014), Vasteras, Sweden, September 2014

S44. Program Committee Member, 8th European Conference on Software Architecture (ECSA 2014), Vienna, Austria, August 2014

S43. Program Committee Member, IEEE 2nd International Workshop on Engineering Mobile Service Oriented Systems (EMSOS 2014), Anchorage, AL, June 2014

S42. Program Committee Member, 4th International Workshop on the Twin Peaks of Requirements and Architecture (TwinPeaks 2014), Hyderabad, India, June 2014

S41. Program Committee Member, 2nd International Workshop on the Engineering of Mobile-Enabled Systems (MOBS 2014), Hyderabad, India, June 2014

S40. Program Committee Member, 36th International Conference on Software Engineering (ICSE 2014), Hyderabad, India, June 2014

S39. Program committee Member, 9th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2014), Hyderabad, India, June 2014

S38. Program Committee Member, 11th Working IEEE/IFIP Conference on Software Architecture (WICSA 2014), Sydney, Australia, April 2014

S37. Program Committee Member, Workshop on Architecting Mobile-Enabled Systems (AMeS 2014), Sydney, Australia, April 2014

S36. Program Committee Member, Coordination Models, Languages and Applications track, 29th ACM Symposium on Applied Computing (SAC 2014), Gyeongju, Korea, March 2014

S35. NSF Panel Member, Secure and Trustworthy Computing, Arlington, VA, March 2014

S34. Panelist, American Association for the Advancement of Science (AAAS), Maine Technology Institute Development Loan Program, August 2013

S33. Program Committee Member, 7th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2013), Philadelphia, USA, September 2013

S32. Program Committee Member, International Workshop on Software Engineering for Systems-of-Systems (SESoS 2013), Montpellier, France, July 2013

S31. Program Committee Member, 7th European Conference on Software Architecture (ECSA 2013), Montpellier, France, July 2013

S30. Program Committee Member, 3rd International Workshop on the Twin Peaks of Requirements and Architecture (TwinPeaks 2013), Rio de Janeiro, Brazil, July 2013

S29. Program Committee Member, International Workshop on the Engineering of Mobile-Enabled Systems (MOBS 2013), San Francisco, CA, May 2013

S28. Program Committee Member, 4th International Workshop on Software Engineering for Sensor Network Applications (SESENA 2013), San Francisco, CA, May 2013

S27. Program Committee Member, 2nd International Workshop on the Twin Peaks of Requirements and Architecture (TwinPeaks 2013), San Francisco, CA, May 2013

S26. NSF Panel Member, Computing and Communication Foundations, Arlington, VA, January 2013

S25. Program Committee Member, Coordination Models, Languages and Applications track, 28th ACM Symposium on Applied Computing (SAC 2013), Coimbra, Portugal, January 2013

S24. Program Committee Member, 1st International Workshop on the Twin Peaks of Requirements and Architecture (TwinPeaks 2012), Chicago, Illinois, September 2012

S23. Program Committee Member, 1st International Workshop on Adaptive Service Ecosystems: Nature and Socially Inspired Solutions (ASENSIS 2012), Lyon, France, September 2012

S22. Program Committee Member, 20th International Symposium on the Foundations of Software Engineering (FSE 2012), New Ideas and Emerging Results Track, Research Triangle Park, North Carolina, November 2012

S21. Program Committee Member, 6th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2012), Lyon, France, September 2012

S20. Program Committee Member, Joint 10th Working IEEE/IFIP Conference on Software Architecture (WICSA 2012) and 6th European Conference on Software Architecture (ECSA 2012), Helsinki, Finland, August 2012

S19. Program Committee Member, Workshop on Architectures and Platforms for Knowledge Discovery from Data, Helsinki, Finland, August 2012

S18. Program Committee Member, 15th International ACM SIGSOFT Symposium on Component Based Software Engineering (CBSE 2012), Bertinoro, Italy, June 2012

S17. Program Committee Member, 2nd Workshop on Developing Tools as Plug-ins (TOPI 2012), Zurich, Switzerland, June 2012

S16. Program Committee Member, 34th International Conference on Software Engineering (ICSE 2012), New Ideas and Emerging Results Track, Zurich, Switzerland, June 2012

S15. Program Committee Member, 5th International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2011), Ann Arbor, Michigan, October 3-7 2011

S14. Program Committee Member, 25th Brazilian Symposium on Software Engineering (SBES), São Paulo, Brazil, September 26-30 2011

S13. NSF Panel Member, Computer Networks and Systems core, Arlington, VA, March 2011

S12. Program Committee Member, 5th European Conference on Software Architecture (ECSA 2010), Essen, Germany, September 13-16 2011

S11. Program Committee Member, 33rd International Conference on Software Engineering (ICSE 2011), ACM Student Research Competition, Honolulu, Hawaii, May 21-28 2011

S10. Program Committee Member, 1st International Workshop on Engineering Mobile Service Oriented Systems (EMSOS), Miami, Florida, July 5 2010

S9. Program Committee Member, 4th European Conference on Software Architecture (ECSA 2010), Copenhagen, Denmark, August 23-26, 2010

S8. Program Committee Member, 33rd International Conference on Software Engineering (ICSE 2011), Technical/Research Track, Honolulu, Hawaii, May 21-28, 2011

S7. Program Committee Member, 3rd IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2009), San Francisco, CA, September 14-18, 2009

S6. NSF Panel Member, Cyber Physical Systems, Arlington, VA, May 2009

S5. Program Committee Member, International Workshop on Software Architectures and Mobility (SAM 2009), Vancouver, Canada, May 2009

S4. Program Committee Member, Special Session on Software Architecture for Pervasive Systems (SAPS), 34th Euromicro Conference in Parma, Italy, September 3-5, 2008

S3. Program Committee Member, International Conference on Software Engineering Research and Practice (SERP'06), Las Vegas, Nevada, June 2006

S2. Program Committee Member, ISR Graduate Student Research Symposium, Irvine, California, June 2005

S1. Program Committee Member, 39th Hawaiian International Conference on System Sciences, Kauai, Hawaii, January 2006

10.4 REFEREE AND REVIEWER SERVICE

R22. Journal of Computer Security, 2014

R21. Elsevier Journal of Pervasive and Mobile Computing, 2014

R20. Journal of Computer Science and Technology, 2012

R19. ACM Transactions on Autonomous and Adaptive Systems, 2010, 2013, 2014, 2015, 2018, 2019

R18. International Journal of Software and Systems Modeling, 2010

R17. Journal of Empirical Software Engineering, 2010

R16. IEEE Computer, 2009

R15. Journal of Systems and Software, 2009, 2010, 2011, 2012

R14. ACM Transactions on Software Engineering and Methodology, 2008, 2011, 2012, 2013, 2017

R13. European Journal of Information Systems, 2008

R12. Enterprise Information Systems, 2008

R11. ACM Computing Surveys, 2007, 2008, 2009

R10. International Software Technology Journal, 2007, 2010, 2016

R9. IEEE Transactions on Software Engineering, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

R8. IET Software, 2007, 2008, 2009

R7. IEEE Software, 2006, 2007, 2008, 2018

R6. International Working Conference on Software Architecture, outside reviewer, 2007

R5. International Working Conference on Component Deployment, outside reviewer, 2005

R4. International Workshop on Software Engineering and Middleware, outside reviewer, 2005

R3. International Symposium on Component-based Software Engineering, outside reviewer, 2004 - 2006

R2. Twin Workshops on Architecting Dependable Systems (WADS), outside reviewer, May 2004

R1. ACM SISGSOFT Workshop on Self-Managed Systems (WOSS), outside reviewer, October 2004

11 UNIVERSITY SERVICE

U21. Director, Graduate Assistance in Areas of National Need Fellowship, UCI, 2021-2025

U20 Bren Chair Hiring Committee, Informatics Department, UCI, 2022-2023

U19 MSWE Steering/Admissions Committee, School of Information and Computer Sciences, 2021-2023

U18 Distinctions and Awards Committee, School of Information and Computer Sciences, 2021-2023

U17 Member, Lecturer Review Board, School of Information and Computer Sciences, UCI, 2020-2021

U16. Chair, Software Engineering Steering Committee, School of Information and Computer Sciences, UCI, 2019-2020

U15. Health Informatics Recruitment Committee, 2019-2020

U14. Member, Executive Committee, School of Information and Computer Sciences, UCI 2018 – 2019

U13. Chair, Software Engineering Steering Committee, School of Information and Computer Sciences, UCI
2018 – 2019

U12. Chair, Cybersecurity Recruitment Committee, School of Information and Computer Sciences, UCI
2017-2018

U11. Member, Software Engineering Recruitment Committee, Informatics Department, UCI
2017-2018

U10. Chair, Software Engineering Admissions Committee, Informatics Department, UCI
2017 – 2018, 2022-2023

U9. Member, Software Engineering Steering Committee, School of Information and Computer Sciences, UCI
2017 – 2018

U8. Member, Executive Committee, School of Information and Computer Sciences, UCI
2017 – 2018

U7. Chair, Software Engineering Steering Committee, School of Information and Computer Sciences, UCI
2015 – 2017, 2019-2020

U6. Member, Graduate Admissions and Recruitment Day Committee, Informatics Department, UCI
2015 – 2017

U5. Member, Development and Fundraising Committee, Informatics Department, UCI
2015 – 2017

U4. Member, Faculty Recruitment, Computer Science Department, GMU
2013, 2015

U3. Member, PhD Admission, Computer Science Department, GMU
2012 – 2015

U2. Chair, Software Engineering Seminar Series, Computer Science Department, GMU
2008 – 2015

U1. Member, MS-SWE Admissions & Policy, Computer Science Department, GMU
2007 – 2015

12 PROFESSIONAL ASSOCIATIONS

- Association for Computing Machinery (ACM)
- ACM Special Interest Group on Software Engineering (SIGSOFT)
- Institute of Electrical and Electronics Engineers (IEEE)

13 CONSULTING

- March 2011 – May 2016 Institute for Defense Analyses
- June 2013 – present Quandary Peak Research