

Shahram Esmailsabzali

Shahram Esmailsabzali
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Education

Ph.D. in Computer Science (Software Engineering), February 2011
Cheriton School of Computer Science, University of Waterloo
Research Group: Waterloo Formal Methods (<http://watform.uwaterloo.ca>)
Dissertation Title: “Prescriptive Semantics for Big-Step Modelling Languages”
Supervisor: Professor Nancy A. Day

Master of Mathematics in Computer Science (Software Engineering), July 2004
Cheriton School of Computer Science, University of Waterloo
Thesis Title: “An Interface Approach to Discovery and Composition of Web Services”
Supervisor: Professor Farhad Mavaddat

Bachelor of Science in Software Engineering, September 1995
Azad University (Tehran), Iran (<http://iauctb.ac.ir/en>)
Bachelor’s Project: “Memory Garbage Collection in Borland C++ Compiler (MS-DOS)”
Project Advisor: Professor Amirali Baniasadi

Post-Doctoral Research

University of Waterloo	Waterloo, Canada
Postdoctoral Research Fellow	September 1, 2013 – present
Supervisor: Professor Frank Tip	

Max Planck Institute for Software Systems	Kaiserslautern, Germany
Postdoctoral Research Fellow	July 1, 2011 – August 31 2013
Supervisor: Professor Rupak Majumdar	

University of Southampton	Southampton, UK
Postdoctoral Research Fellow	January 15, 2011 – June 30, 2011
Supervisor: Professor Bernd Fischer	

Awards and Scholarships

- Distinguished Teaching Assistantship Award, Cheriton School of Computer Science, University of Waterloo, Winter 2010
- Ontario Graduate Scholarship (OGS), 2008
- Ontario Graduate Scholarship (OGS), 2007
- Ross and Muriel Cheriton Graduate Scholarship Winter 2007
- Ontario Graduate Scholarship (OGS), 2006
- University of Waterloo Graduate Scholarship, Winter 2006
- Distinguished Paper Award, FSEN’05, 2005

Refereed Publications

- Shahram Esmailsabzali, Rupak Majumdar, Thomas Wies, and Damien Zufferey. “Dynamic Package Interfaces,” **to appear** In *International Conference on Fundamental Approaches to Software Engineering (FASE’14)*, 2014 (acceptance rate 23%)
- Jeffrey Fischer, Rupak Majumdar, and Shahram Esmailsabzali, “Engage: A Deployment Management System,” In *ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI’12)*, 263–274, ACM, 2012 (acceptance rate 19%)
- Shahram Esmailsabzali, Bernd Fischer, and Joanne Atlee. “Monitoring Aspects for the Customization of Automatically Generated Code for Big-Step Models,” In *International Conference on Generative Programming and Component Engineering (GPCE’11)*, 117–126, ACM, 2011 (acceptance rate 31%)
- Shahram Esmailsabzali and Nancy A. Day. “Semantic Quality Attributes for Big-Step Modelling Languages,” In *International Conference on Fundamental Approaches to Software Engineering (FASE’11)*, 65–80, Lecture Notes in Computer Science vol. 6603, Springer, 2011 (acceptance rate 29%)
- Shahram Esmailsabzali, Nancy A. Day, and Joanne M. Atlee. “A Common Framework for Synchronization in Requirements Modelling Languages,” In *International Conference on Model Driven Engineering Languages and Systems (MoDELS’10)*, pp. 198–212, Lecture Notes in Computer Science vol. 6395, Part II, Springer, 2010 (acceptance rate 20.8%)
- Shahram Esmailsabzali, Nancy A. Day, Joanne M. Atlee, and Jianwei Niu. “Deconstructing the Semantics of Big-Step Modelling Languages,” **Requirements Engineering**, 15(2), pp. 235–265, Springer, 2010 (**Journal Publication**)
- Shahram Esmailsabzali and Nancy A. Day. “Prescriptive Semantics for Big-Step Modelling Languages,” In *International Conference on Fundamental Approaches to Software Engineering (FASE’10)*, 158–172, Lecture Notes in Computer Science vol. 6013, Springer, 2010 (acceptance rate 25%)
- Shahram Esmailsabzali, Nancy A. Day, Joanne M. Atlee, and Jianwei Niu. “Semantic Criteria for Choosing a Language for Big-Step Models,” In *Proceeding of 17th IEEE International Requirements Engineering Conference (RE’09)*, pp. 181–190, IEEE Computer Society Press, 2009 (acceptance rate 21%)
- Shahram Esmailsabzali, Nancy A. Day, and Farhad Mavaddat. “Interface Automata with Complex Actions: Limiting Interleaving in Interface Automata,” **Fundamenta Informaticae**, 82(4), pp. 465–512, IOS Press, 2008 (**Journal Publication**)
- Shahram Esmailsabzali, Farhad Mavaddat, and Nancy A. Day. “Interface Automata with Complex Actions,” In *Proceeding of IPM International Workshop on Foundations of Software Engineering (FSEN’06)*, (In Cooperation with ACM/SigSoft), pp. 79–97, In Elsevier’s ENTCS Conference Series, 159, 2006 (**Distinguished Paper Award**)
- Shahram Esmailsabzali, Nancy A. Day, and Farhad Mavaddat. “Specifying Search Queries for Web Service Discovery,” In *Proceeding of the First International Workshop on Service-Oriented Computing: Consequences for Engineering Requirements (SOCCER’05)*, 2005

- Shahram Esmailsabzali and Kate Larson. “Service Allocation for Composite Web services Based on Quality Attributes,” In *Proceeding of the 1st IEEE International Workshop on Service Oriented Solutions for Cooperative Organizations (SoS4CO’05)*, pp. 71–79, IEEE Computer Society Press, 2005

Technical Reports and Non-refereed Publications

- Shahram Esmailsabzali, Rupak Majumdar, Thomas Wies, and Damien Zufferey. “Dynamic Package Interfaces – Extended Version,” CoRR abs/1311.4934, <http://arxiv.org/abs/1311.4934>, 2013 (31 pages)
- Shahram Esmailsabzali, Rupak Majumdar, Thomas Wies, and Damien Zufferey. “A Notion of Dynamic Interface for Depth-Bounded Object-Oriented Packages,” CoRR abs/1311.4615, <http://arxiv.org/abs/1311.4615>, 2013 (26 pages)
- Shahram Esmailsabzali, Nancy A. Day, Joanne M. Atlee, and Jianwei Niu. “Big-Step Semantics,” Tech Report CS-2009-05, Cheriton School of Computer Science, University of Waterloo, 2009 (63 pages)
- Shahram Esmailsabzali, Nancy A. Day, and Farhad Mavaddat. “Interface Automata with Complex Actions - Extended Version,” Tech Report CS-2005-26, Cheriton School of Computer Science, University of Waterloo, 2005 (Revised May 15, 2006) (29 pages)
- Shahram Esmailsabzali and Nancy Day. “Online Pricing for Web service Providers,” (position paper) In *EDSER’06: Proceedings of the 2006 International Workshop on Economics driven Software Engineering Research (EDSER’06)(in conjunction with ICSE 2006)*, pp. 37-42, ACM Press, 2006
- Shahram Esmailsabzali, Leonard Wong, and Nancy A. Day. “An Evaluation of Metro Express Generated SMV Models,” Technical Report CS-2005-20, Cheriton School of Computer Science, University of Waterloo, 2005 (17 pages)

Presentations

- Research presentation, Alpine Verification Meeting, Passau, Germany, May 21, 2012
- Paper presentation, FASE, Saarbrücken, Germany, March 30, 2011
- Seminar Talk, School of Electronics and Computer Science, University of Southampton, “Prescriptive Semantics for Big-Step Modelling Languages,” Southampton, UK, January 26, 2011
- Seminar Talk, Cheriton School of Computer Science, “Big-Step Semantics,” Waterloo, Canada, January 11, 2011
- Paper presentation, MoDELS, Oslo, Norway, October 7, 2010
- Paper presentation, FASE, Paphos, Cyprus, March 23, 2010
- Paper presentation, RE, Atlanta, USA, September 2, 2009
- Seminar Talk, Cheriton School of Computer Science, “Semantic Criteria for Choosing a Language for Big-Step Models (Extended Version),” Waterloo, August 27, 2009
- Paper presentation, EDSER, Shanghai, China, May 27, 2006
- Paper presentation, FSEN, Tehran, Iran, October 1, 2005
- Paper presentation, SOCCER, Paris, France, August 30, 2005

- Paper presentation, SoS4CO, Munich, Germany, July 19, 2005
- Seminar Talk, Cheriton School of Computer Science, “Parameterized Interface Automata,” Waterloo, Canada, January 31, 2005

Teaching Activities

Teaching Assistant University of Waterloo

- *CS 445 (SE-1): Software Requirements Specification and Analysis*
Winter 2003 – Winter 2010 (12 times)
- *CS 245: Logic and Computation*
Winter 2005 – Winter 2009 (4 times)
- *CS 246: Software Abstraction and Specification*
Spring 2007
- *CS 338: Computer Applications in Business: Databases*
Spring 2003
- *CS 134: Principles of Computer Science*
Fall 2002

Guest Lecturer on Model Checking University of Southampton
Fall 2009

CS 745: Computer Aided Verification – Graduate Course

Guest Lecturer on Z Notation University of Southampton
Two lectures (two classes), Fall 2008 + three lectures (two classes), Spring 2009
CS 245: Logic and Computation

Industrial Employments

Data Processing Iran Company – Full time Tehran, Iran
<http://www.dpi.ir/en/home>
Software Developer/Analyst November 1997 – January 2002
Developer for banking/financial systems (in UNIX, Windows, and mainframe platforms).

Aircraft Simulator Project – Full time Tehran, Iran
C Systems Programmer November 1995 – November 1997
Programming in C for controlling the mechanical/electronic devices of a PC-7 simulator.

Aircraft Simulator Project – Part time Tehran, Iran
C Systems Programmer November 1997 – November 1998
System programming in C for PC-7 aircraft simulator; re-engineering some old code.

Academic Services

- Co-reviewed papers for: International Colloquium on Automata, Languages and Programming (*ICALP*), 2013; International Conference on Computer Aided Verification (*CAV*), 2013; International Conference on Foundations of Software Science and Computation Structures (*FoSSaCS*), 2013; Foundations of Software Technology and Theoretical Computer Science (*FSTTCS*), 2012; Computer Aided Verification (*CAV*),

2012; Automated Software Engineering (*ASE*), 2011; Generative Programming and Component Engineering (*GPCE*), 2011; Theory and Applications of Models of Computation (*TAMC*), 2010; Formal Methods in Computer Aided Design (*FMCAD*), 2006; International Workshop on Foundations of Software Engineering (*FSEN*), 2005.

- Reviewed papers for Science of Computer Programming and Iranian Journal of Electrical and Computer Engineering
- Member of the “Project Reviewing Committee” of the university-level “Graduate Studies Endowment Fund”, University of Waterloo, Sep. 2009 – Sep. 2010
- Student volunteer in: the International Conference on Requirements Engineering (*RE*) 2009; International Conference on Concurrency Theory (*CONCUR*) and the Annual ACM Symposium on Principles of Distributed Computing (*PODC*), 2008; and the International Conference on Software Engineering (*ICSE*), 2006.