

## Curriculum Vitae

**Judith A. Stafford**

January 2016

Department of Computer Science

University of Colorado at Boulder

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**Education**

Ph.D. (Computer Science) August 2000, University of Colorado at Boulder. Dissertation: *A Formal, Language-Independent, and Compositional Approach to Program Dependence Analysis*. Academic advisor: Alexander L. Wolf.

M.S. (Computer Science) May 1995, University of Colorado at Boulder. Dissertation: *Program Behavior Analysis Tools*. Advisor: Benjamin G. Zorn.

B.A. (Mathematics) with distinction 1979, University of Colorado at Boulder; with emphasis in engineering and secondary teaching certification.

**Recent Professional****Employment**

Senior Instructor and Associate Chair, Department of Computer Science, Boulder, Colorado, August 2013 – present

Senior Instructor, Department of Computer Science, University of Colorado at Boulder, Boulder, Colorado, August 2012 – present

Senior Lecturer, Department of Computer Science, Tufts University, Medford, Massachusetts, September 2002 – August 2012.

Senior Member of the Technical Staff, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, Pennsylvania, June 2000 — September 2002.

**Affiliations**

Visiting Scientist, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, Pennsylvania, September 2002 – Present

Visiting Researcher, CNAM, Paris, May-June, 2010.

External Examiner, University of Limerick, Masters in Software Engineering Program, October 2006 – November 2010.

## Grants and Gifts

### *Current*

Computer Science Senior Design Projects AY 2014-15, PI: Judith Stafford, \$49,000 (Grants \$28,000, Gifts \$21,000)

### *Pending*

NSF –IUSE-RED : Developing a Culture of Computer Science Education, James Martin (PI), Noah Finklestein (co-PI), Dirk Grunwald (co-PI), Sarah Miller (co-PI), Judith Stafford (co-PI), \$1,650,000/5 years, Submitted November 2015.

### *Past*

NSF – co-PI, Teaching Through Outreach: The Institutionalized GK-12 Model, \$229,767, 5/1/06-04/30/07.

## Keynote Speeches

“Software Architecture Coming of Age in a Time of Change”, 8<sup>th</sup> Argentine Symposium on Software Engineering, Mar del Plata, Argentina, August 29, 2007.

## Publications

### *Books*

I. Mistrik, R. Bahsoon, J. Stafford, A. Tang, “Aligning Enterprise, System, and Software Architectures”, IGI Global Press, October 2012.

P. Clements, F. Bachmann, L. Bass, D. Garlan, J. Ivers, R. Little, P. Merson, R. Nord, J. Stafford, “Documenting Software Architectures, Second Edition” Addison Wesley, Inc., Boston, September 2010.

P. Clements, F. Bachmann, L. Bass, D. Garlan, J. Ivers, R. Little, R. Nord, J. Stafford, “Documenting Software Architectures,” Addison Wesley, Inc., Boston, September 2002.

### *Refereed Conference Papers*

D. Grunwald, E. Boese, R. Hoenigman, A. Saylor, J. Stafford, “Personalized Attention @ Scale”, Proceedings of the 2015 SigCSE Symposium, Kansas City, Missouri, March 4-7, 2015, *to appear*.

C. Hinsman, N. Sangal and J. Stafford, "Achieving Agility through Architecture Visibility", International Conference on Quality of Software Architecture, QoSA 2009, LNCS 5581-0116, East Strassburgh, Pennsylvania, June 24-26, 2009, 116-129.

Thomas Hubbard and Judith Stafford, *Using Concept Maps to Enhance System View Navigation*, Third International Conference on Concept Mapping, Helsinki, Finland Sept. 22-25, 2008

K. Simons and J.A. Stafford. *CMEH: Container-Managed Exception Handling for Increased Assembly Robustness* in I. Crnkovic, J.A. Stafford, H.W. Schmidt, K. Wallnau, K. (Eds.), Component-Based Software Engineering 7th International ACM SigSoft Symposium, CBSE 2004, Edinburgh,

UK, May 24-25, 2004, Proceedings Series: Lecture Notes in Computer Science, Vol. 3054, pp. 122--130.

J.D. McGregor, J.A. Stafford, I. Cho, *Measuring and Reporting Component Reliability*, Proceedings of the 1st ACIS International Conference on Software Engineering Research and Applications, San Francisco, California, June, 2003, Selected Papers Series: Lecture Notes in Computer Science, Vol. 3026, Ramamoorthy, C.V.; Lee, Roger Y.; Lee, Kyung Whan (Eds.)2004, pp. 74--86.

S.A. Hissam, G.A. Moreno, J.A. Stafford and K.C. Wallnau, *Packaging and Deploying Predictable Assembly*, IFIP/ACM Working Conference on Component Deployment (CD2002), Berlin, Germany, June 20-21, 2002.

K. Wallnau and J. Stafford, *Ensembles: Abstractions for a New Class of Design Problem*, Proceedings of the IEEE 27th Euromicro Conference (Euromicro 2001), Warsaw, Poland, September, 2001.

J.A. Stafford and A.L. Wolf, *Annotating Components to Support Component-Based Static Analyses of Software Systems*, Proceedings of the Grace Hopper Conference, Hyannis, Massachusetts, September, 2000 on compact disc (available in print as Department of Computer Science, University of Colorado at Boulder, Technical Report CU-CS-896-99).

#### **Journal Articles**

P. Kruchten, H. Obbink and J. Stafford, "The Past Present and Future of Software Architecture", Special Issue on Software Architecture: State of Practice and Future Directions, IEEE Software, 23(2), March-April 2006, pp. 22-30.

I. Crnkovic, H. Schmidt, J. Stafford and K. Wallnau. *6th ICSE Workshop on Component-Based Software Engineering: Automated Reasoning and Prediction*, ACM SIGSOFT Software Engineering Notes, 29(3), May 2004, pp. 1—7.

J.A. Stafford, A.L. Wolf and M. Caporuscio. *The Application of Dependence Analysis to Software Architecture Descriptions*, Formal Methods for Software Architectures: Third International School on Formal Methods for the Design of Computer, Communication and Software Systems, Lecture Notes in Computer Science 2804, Springer-Verlag, Berlin, 2003, pp. 52—62.

S. Hissam, G. Moreno, J. Stafford and K. Wallnau, *Enabling Predictable Assembly*, Journal of Systems and Software, Vol. 65, Issue 3, March 2003, pp. 185—198. (also available online at: <http://www.sciencedirect.com/science/journal/01641212>).

Ivica Crnkovic, Heinz Schmidt, Judith Stafford and Kurt Wallnau, *5th ICSE Workshop on Component-Based Software Engineering*, ACM SIGSOFT Software Engineering Notes, 27, (5), September 2002, pp. 33 – 40.

I. Crnkovic, H. Schmidt, J. Stafford and K. Wallnau, *4th ICSE Workshop on Component-Based Software Engineering*, Software Engineering Notes, Vol. 26, No. 6, November 2001, pp. 33—40.

J.A. Stafford and A.L. Wolf, *Architecture-Level Dependence Analysis for Software Systems*, International Journal of Software Engineering and Knowledge Engineering (IJSEKE), Vol. 11, No. 4, August 2001, pp. 431—453.

#### **Edited Journal Special Issues and Conference Proceedings**

I Crnkovic, J. A. Stafford (Eds.). Journal of System Architecture Special Issue on Embedded Systems Software Architecture, Volume 59, Issue 10, November 2013.

F. Oquenda, E. Poort, J. A. Stafford (Eds.). Journal of Systems and Software Special Issue: The Best Papers of WICSA/ECSA 2009, June 2011.

- I. Crnkovic, C. Szyperski, and J. A. Stafford (Eds.). IEEE Software Special Issue on Component-Based Software Engineering. March/April 2011.
- S. Overhage, C.A. Szyperski, R. Reussner, J.A. Stafford (Eds.). Software Architectures, Components, and Applications, Third International Conference on Quality of Software Architectures, QoSA 2007, Medford, MA, USA, July 11-23, 2007, Revised Selected Papers. Lecture Notes in Computer Science 4880 Springer 2008, ISBN 978-3-540-77617-8.
- H. Schmidt, I.Crnkovic, G. Heineman and J. Stafford, Component-Based Software Engineering, 9th International Symposium, CBSE 2007, Springer Verlag, Proceedings Series: Lecture Notes in Computer Science, Springer, July 2007.
- Software Architecture, Components, and Applications 3rd International Conference on the Quality of Software Architectures, QoSA 2007, Medford, MA, USA, July 11-13, 2007. Springer Verlag, Proceedings Series: Lecture Notes in Computer Science Number 4880.
- I. Crnkovic, G. Heineman, H. Schmidt, J. Stafford, C. Szyperski, K. Wallnau (Eds), Journal of Systems and Software, *Special Issue: Component-Based Software Engineering: Extra-Functional Property Prediction, Analysis, and Monitoring*. Elsevier Science Inc., 80(5), May 2007.
- Nenad Medvidovic, Reni Krikhaar, Robert Nord and Judith Stafford. Understanding the Past, Improving the Present, and Mapping out the Future of Software Architecture, Journal of Systems and Software, Editorial, December 2006, 79(12).
- I. Gorton, G.T. Heineman, I. Crnkovic, H. W. Schmidt, J.A. Stafford, C. A. Szyperski and K.C. Wallnau. Component-Based Software Engineering, 9<sup>th</sup> International Symposium, CBSE 2006, Västerås, Sweden, June 29 - July 1, 2006, Springer Verlag, Proceedings Series: Lecture notes in Computer Science Number 4063.
- J. Stafford and H. Obbink (Eds.), *IEEE Special Issue on Software Architecture: State of Practice and Future Directions*, March-April 2006.
- R. Reussner, J. Mayer, J. A. Stafford, S. Overhage, S Becker and P. J. Schroeder (Eds.), Quality of Software Architectures and Software Quality, Lecture Notes in Computer Science Proceedings 3712, September 2005.
- G. Heineman, I. Crnkovic, J.A. Stafford, H.W. Schmidt, C. Szyperski, K. Wallnau, K. (Eds.), Symposium on Component-Based Software Engineering 2005 (CBSE05), St. Louis, Missouri, May 14-15, 2005, Proceedings Series: Lecture Notes in Computer Science Number 3489.
- R. Reussner, J.A. Stafford and C. Szyperski, (Eds.), Architecting Systems with Trustworthy Components, Dagstuhl, Germany, December 13-17, 2004, Proceedings Series: Lecture Notes in Computer Science Number 3938, August 2006.
- Crnkovic, I., Schmidt, H., Stafford, J., and Wallnau, K., Guest Editors, Elsevier Journal of Systems and Software Special Issue on Automated Component-Based Software Engineering, Volume 74, Issue 1, January 2005.
- Crnkovic, I.; Stafford, J.A.; Schmidt, H.W.; Wallnau, K., Editors, 7<sup>th</sup> International Symposium, Edinburgh, Scotland, May 24-25, 2004, Proceedings Series: Lecture Notes in Computer Science, Vol. 3054, 2004.
- Crnkovic, I., Schmidt, H., Stafford, J., and Wallnau, K., Guest Editors, Elsevier Journal of Systems and Software Special Issue on Component-Based Software Engineering: Component Certification and System Prediction, Volume 65, Issue 3, March 2003.
- Book Chapters**
- L. Bass, P. Clements, R. Nord and J. Stafford, *Capturing and Using Rationale for Software*

*Architectures* in A.H. Dutoit, R. McCall, I. Mistrik, and B. Paech, editors, *Rationale Management in Software Engineering*, Springer-Verlag/Computer Science Editorial, 2005.

J. Stafford and K. Wallnau, *Component Composition and Integration*, in I. Crnkovic and M. Larrson editors, *Building Reliable Component-Based Systems*, Artech House, May 2002.

K. Wallnau and J. Stafford, *Component Evaluation*, in I. Crnkovic and M. Larrson editors, *Building Reliable Component-Based Systems*, Artech House, May 2002.

J. Bosch and J. Stafford, *Components and Architecture*, in I. Crnkovic and M. Larrson editors, *Building Reliable Component-Based Systems*, Artech House, May 2002.

J.A. Stafford and A.L. Wolf, *Software Architecture*, in G.T. Heineman and W.T. Councill editors, *Component-Based Software Engineering: Putting the Pieces Together*, Addison Wesley, Inc., Reading, Massachusetts, May 2001.

### ***Invited Talks***

*Creating Stakeholder-Based Architecture Documentation*, Malardalen University, Vasteras, Sweden, January 2008.

*Including Software Architecture Documentation in Your Software Engineering Course*, 2007 Educator's Symposium, Software Engineering Institute, Carnegie Mellon University, Pittsburgh, Pennsylvania, July 31- August 2, 2007.

*Software Architecture Documentation*, Workshop on Software Architecture Documentation, Avaya Research, March 20, 2007.

*Creating Software Architecture Documentation to Meet Your Needs*, at the International Symposium on Component-Based Software Engineering, July 2006, Maladarlen University, Vasteras, Sweden.

*Improving Robustness of Component-Based Software*, BBN Technologies, Cambridge, Massachusetts, April 2005.

*Identifying Analytic Assets for Component Composition*, Department Colloquium, University of Massachusetts at Boston, December 2003.

*Component-Based Software*, guest lecture to the graduate course in Software Architecture, Carnegie Mellon University, April 18, 2002.

*Predictable Assembly from Certifiable Components* Meeting of the SAVE Consortium, Department of Computer Engineering at Mälardalen University, Västerås, Sweden, April 13, 2002.

*Component-Based Software*, guest lecture to the undergraduate course in Software Engineering, University of Pittsburgh, February 11, 2002.

*Software Architecture: The Key to Component-Based Development*, Seminar on Component-Based Software Engineering: New approach to managing large-scale software, hosted jointly by ABB Sweden and the Department of Computer Engineering at Mälardalen University, Västerås, Sweden, August 31, 2001.

*PACC -- Bridging the Gap Between Software Architecture and Component Technology*, Dipartimento di Elettronica ed Informazione seminar, Politecnico di Milano, Milano, Italy, June 10, 2001.

*PACC -- Bridging the Gap Between Software Architecture and Component Technology*, guest lecture to the graduate course in Software Architecture, Carnegie Mellon University, April 17, 2001.

*The SEI at a Glance*, guest lecture to the Senior Projects Class, West Point Military Academy, West Point, New York, February 2001.

*Avoiding the Pitfalls of Interprocedural Control Dependence Analysis*, Department of Computer Science, University of Colorado, November 1999.

*Aladdin: A Tool for Software Architecture Dependence Analysis*, ASSETT'98, Motorola Museum, Motorola University, Schaumburg, Illinois, July 1998.

*Aladdin: A Tool for Software Architecture-Level Dependence Analysis*, Software Group, Carnegie Mellon University, Pittsburgh, Pennsylvania, October 1998.

### **Tutorials**

J. Stafford and P. Clements, *Producing Software Architecture Documentation to Suit Your Needs*, 6<sup>th</sup> Working IEEE/IFIP Conference on Software Architecture (WICSA07), Mumbai, India, January 6, 2007.

J. Stafford, *"Documentation Principles and Practices that You Can Live With"*, Industrial Day: Advanced Design of Software Systems, co-located with CBSE06 and QoSA06, Västerås, Sweden, June 29, 2006.

R. Nord and J. Stafford, *Software Architecture Documentation with the Unified Modeling Language (UML)*, 4<sup>th</sup> Working IEEE/IFIP Conference on Software Architecture (WICSA04), Oslo, Norway, June 2004.

P. Clements, R. Nord, J. Stafford, *Documenting Software Architectures*, 2003 International Conference on Software Engineering, Portland, Oregon, May 2003.

P. Clements and J.A. Stafford, *Documenting Software Architectures*, IFIP Working International Conference on Software Architecture, Montreal, August, 2002.

### **Refereed Workshop Papers**

J.A. Stafford and J.D. McGregor, *Top-Down Analysis for Bottom-Up Development*, in Proceedings of the 2004 Workshop on Component-Oriented Programming (WCOP 2004) held at the European Conference on Object-Oriented Programming (ECOOP 2004), Oslo, Norway, June 15, 2004.

K. Simons and J. Stafford, *Container-Managed Exception Handling Framework*, International Workshop on Incorporating COTS into Software Systems: Tools and Techniques (IWICSS), February 2004.

J.D. McGregor, J.A. Stafford and I. Cho, *Measuring Component Reliability*, Proceedings of the 6<sup>th</sup> ICSE Workshop on Component-Based Software Engineering, Portland, Oregon, May, 2002, available on-line at <http://www.csse.monash.edu.au/~hws/cgi-bin/CBSE6/Proceedings/proceedings.cgi>.

I. Crnkovic, H. Schmidt, J. Stafford, and K. Wallnau, *Anatomy of a Research Project in Predictable Assembly*, Proceedings of the 5<sup>th</sup> ICSE Workshop on Component-Based Software Engineering, Orlando, Florida, May, 2002, pp. 7—12.

J.A. Stafford and J.D. McGregor, *Issues in Predicting the Reliability of Composed Components*, Proceedings of the 5<sup>th</sup> ICSE Workshop on Component-Based Software Engineering, Orlando, Florida, May, 2002, pp.25—30.

J.A. Stafford, *Credential Sheets for Components*, Proceedings of OOPSLA 2001 Workshop on Object-Oriented Web Services, Tampa, Florida, October 2001.

J. Stafford and Kurt Wallnau, *Predicting Feature Interactions in Component-Based Systems*,

Proceedings of the Workshop on Feature Interaction of Composed Systems, Budapest, Hungary, June, 2001.

K. Wallnau, Judith Stafford, Scott Hissam, and Mark Klein, *On the Relationship of Software Architecture to Software Component Technology*, Proceedings of the 6<sup>th</sup> International Workshop on Component-Oriented Programming (WCOP6), Budapest, Hungary, June, 2001.

J. Stafford and Kurt Wallnau, *Is Third Party Certification Necessary?*, Proceedings of the 4th ICSE Workshop on Component-Based Software Engineering, Toronto, Canada, May, 2001, pp. 13—17.

J.A. Stafford, *Negotiating Posture Boundaries*, Information Survivability Workshop 2000, Boston, Massachusetts, October 2000.

J.A. Stafford and Alexander L. Wolf, *Architecture-Level Dependence Analysis in Support of Software Maintenance*, Proceedings of the Third International Software Architecture Workshop, Orlando, Florida, November 1998, Pages 129—132.

J.A. Stafford, *Dependence Analysis for Software Architectures*, Proceedings of the ASE'98 Doctoral Symposium, Honolulu, Hawaii, November 1998.

### **Technical Reports**

C. Hinsman, N. Sangal and J. Stafford, “Large Scale Refactoring Through Architecture Visibility”, Tufts University Technical Report TR-2007-8, 2007-09-14

J. Stafford, “Creating and Using Software Architecture Documentation Using Web-Based Tool Support”, CMU/SEI-2004-TN-037, September, 2004.

K. Simons and J. Stafford, “Container-Managed Exception Handling for the Predictable Assembly of Component- Based Systems”, Tufts University Technical Report TR-2004-3, 2004

M.R. Barbacci, R. Ellison, A.L. Lattanze, J.A. Stafford, C.B. Weinstock, W.G. Wood, “Quality Attribute Workshops (QAWs), Third Edition”, CMU/SEI-2003-TR-016, September, 2003.

P. Clements, J. Ivers, R. Little, R. Nord, J. Stafford, "Documenting Software Architectures in an Agile World," CMU/SEI-2003-TN-023, July, 2003.

S. Hissam, J. Hudak, J. Ivers, M. Klein, M. Larsson, G. Moreno, L. Northrop, D. Plakosh, J. Stafford, K. Wallnau, W. Wood, “Predictable Assembly of Substation Automation Systems: An Experiment Report,” CMU/SEI-2002-TR-031, September 2002.

S.A. Hissam, G.A. Moreno, J.A. Stafford, K.C. Wallnau, "Packaging Predictable Assembly with Prediction- Enabled Component Technology," CMU/SEI-2001-TR-024, November 2001.

M.R. Barbacci, R. Ellison, J.A. Stafford, C.B. Weinstock, W.G. Wood, "Quality Attribute Workshops," CMU/SEI-2001-TR-010, May 2001.

F. Bachmann, P. Clements, D. Garlan, J. Ivers, R. Little, R. Nord, J. Stafford, "SEI Workshop on Software Architecture Representation, 16-17 January 2001," CMU/SEI-2001-SR-010, October 2001.

Judith A. Stafford, Debra J. Richardson and Alexander L. Wolf, “Aladdin: A Tool for Architecture-Level Dependence Analysis of Software,” Department of Computer Science, University of Colorado at Boulder, Technical Report CU-CS-858—98, April 1998.

Judith A. Stafford, Debra J. Richardson and Alexander L. Wolf, “Chaining: A Software Architecture Dependence Analysis Technique,” Department of Computer Science, University of Colorado at Boulder, Technical Report CU-CS-845—97, September 1997.

Judith A. Stafford and Benjamin G. Zorn, “Choosing Program Collections for Performance Evaluation Experiments,” Department of Computer Science, University of Colorado at Boulder, Technical Report CU- CS-827-97, January 1997.

***Professional Service***

Software Engineering Area Editor, Journal of System Architecture, Elsevier.

***Program and Proposal Review***

Proposal Reviewer, King Fahd University of Petroleum and Minerals, Dhahran Saudi Arabia.

Reviewer of the ACM's CS Curricular Guidelines for Software Engineering Programs.

External Reviewer, Master of Computer Science Programs, Portugal Universities.

Panelist, Aalto University Research Assessment Exercise 2009, Helsinki, Finland.

External Reviewer, Master of Software Engineering Program, University of Limerick,

Ireland. Panelist, National Science Foundation, Proposal Review Panels.

Proposal Reviewer, NWO (Netherlands Organisation for Scientific Research

Proposal Reviewer, Israel Science Foundation (ISF)

Proposal Reviewer, Austrian Science Fund (FWF)

***Conference Organization***

Program Committee, Joint Software Engineering Education and Training Track, 37<sup>th</sup> International Conference on Software Engineering (ICSE 2015), Florence, Italy, May 16-24, 2015.

Program Committee, 9<sup>th</sup> European Conference on Software Architecture (ECSA 2015), Dubrovnik/Cavtat, Croatia, September 8-11, 2015.

Steering Committee and Program Committee Member, Working IEEE/IFIP Conference on Software Architecture (WICSA2015), Montreal, Canada, May 4-8, 2015.

Steering Committee and Program Committee Member, Symposium on Component-Based Software Engineering (CBSE15), Montreal, Canada, to be held May 4-8, 2015.

Steering and Program Committee Member, International Conference on the Quality of Software Architectures (QoSA15), Montreal, Canada, to be held May 4-8, 2015.

Program Committee Member, Workshop on Component Oriented Programming (WCOP15), Montreal, Canada, to be held May 4-8, 2015.

Program Committee, 14th International Conference on Software Reuse (ICSR 2015), Miami, Florida, January 4-6, 2015.

Steering and Program Committee Member, Working IEEE/IFIP Conference on Software Architecture (WICSA2014), Lille, France, April 7-11, 2014, Sydney, Australia.

Steering and Program Committee Member, Symposium on Component-Based Software Engineering (CBSE14), Lille, France, 30 June – July 4, 2014.

Steering and Program Committee Member, International Conference on the Quality of Software Architectures. Lille, France, 30 June – July 4, 2014.



Program Committee Member, Workshop on Component Oriented Programming, Lille, France, 30 June – July 4, 2014.

Steering and Program Committee Member, Symposium on Component-Based Software Engineering (CBSE13), Vancouver, B.C., 11-21 June, 2013.

Steering and Program Committee Member, International Conference on the Quality of Software Architectures. Vancouver, B.C., 11-21 June, 2013.

Steering and Program Committee Member, Workshop on Component Oriented Programming, Vancouver, B.C., 11-21 June, 2013.

Steering and Program Committee Member, Symposium on Component-Based Software Engineering (CBSE12), Bertinoro, Italy, 22-26 June, 2012.

Steering and Program Committee Member, International Conference on the Quality of Software Architectures. Bertinoro, Italy, 22-24 June 2012.

Program Committee Member, Workshop on Component Oriented Programming, Bertinoro, Italy, 22-24 June 2012.

Steering and Program Committee of the 1<sup>st</sup> International Workshop on Software Engineering Education based on Real- World Experiences (EduRex 2012) held in conjunction with the International Conference on Software Engineering, Zurich, Switzerland, 28 November 2012.

Steering and Program Committee Member, Working IEEE/IFIP Conference on Software Architecture (WICSA12), 20-24 August 2012, Helsinki, Finland.

Program Committee Member, Symposium on Component-Based Software Engineering (CBSE12), Bertinoro, Italy, 22-26 June, 2012.

Program Committee Member, International Conference on the Quality of Software Architectures. Bertinoro, Italy, 22-24 June 2012.

Program Committee Member, Workshop on Component Oriented Programming, Bertinoro, Italy, 22-24 June 2012.

General Chair, IEEE/ACM International Federation of Conferences and Workshops on Component-Based Software Engineering and Software Architecture (CompArch) 2011, Boulder, Colorado, June 20-24.

Program Chair, International IEEE/IFIP Working Conference on Software Architecture, 2009, Cambridge, England, September 14-17, 2009.

Program Committee Member, Working IEEE/IFIP Conference on Software Architecture (WICSA08), Vancouver, BC, Canada, 18-21 February 2008.

Steering Committee Member, Federated Events on Component-Based Software Engineering and Software Architecture (CompArch08), Universitat Karlsruhe, Karlsruhe, Germany, October 2008.

Steering Committee Member, Eleventh International Symposium on Component-Based Software Engineering. To be held as an event of Federated Events on Component-Based Software Engineering and Software Architecture (CompArch08), Universitat Karlsruhe, Karlsruhe, Germany, October 2008.

Steering Committee Member, Fourth International Conference on the Quality of Software Architectures. Federated Events on Component-Based Software Engineering and Software Architecture (CompArch08), Universitat Karlsruhe, Karlsruhe, Germany, October 2008.

Program Committee Member, Component-Based Software Engineering. To be held at the 33<sup>rd</sup>

Euromicro Conference, Lubeck, Germany, August 27-31, 2007.

General Chair, Federated Events on Component-Based Software Engineering and Software Architecture, to be held in Medford, MA, USA, July 2007.

Steering Committee Member, Tenth International Symposium on Component-Based Software Engineering (CBSE07), an event of the Federation of Events on Component-Based Software Engineering and Software Architecture, Tufts University, Medford/Somerville Campus, Massachusetts, July 9-11, 2007.

Program Committee Member, International Workshop on the Role of Software Architecture in Testing and Analysis ([ROSATEA07](#)), an event of the Federation of Events on Component-Based Software Engineering and Software Architecture, Tufts University, Medford/Somerville Campus (near Boston), Massachusetts, July 10-11, 2007.

Steering Committee Member, Third International Conference on the Quality of Software Architectures ([QoSA 2007](#)), an event of the Federation of Events on Component-Based Software Engineering and Software Architecture, Tufts University, Medford/Somerville Campus (near Boston), Massachusetts, July 11-13, 2007.

Program Committee Member, 2006 IEEE International Conference on Web Services, Chicago, IL., September 2006.

Program Committee Member, Workshop on the Role of Software Architecture in Testing and Analysis, held at the International Symposium on Software Testing and Analysis, Portland, ME, USA, July 2006.

Program Committee Member, Conference on Quality of Software Architecture (QoSA06), Västerås, Sweden, June 2006.

Co-chair, Working Sessions Track Fifth IEEE/IFIP Working Conference on Software Architecture (WICSA-5), Pittsburgh, USA, November 2005.

Program Committee Member, Track on Component-Based Software Engineering of the 31th Euromicro Conference, Porto, Portugal, August 30 - September 3, 2005.

Treasurer, International Conference on Software Engineering, May 2005, St. Louis, Missouri, USA.

Organizer, Dagstuhl Seminar: Architecting Systems with Trustworthy Components, Dagstuhl, Germany, December 13-17, 2004.

Program Committee Member, Workshop on Component-Based Software Engineering, at the 30th Euromicro Conference, Rennes, France, August 31 - September 4, 2004.

Program Committee Member of the Fourth IEEE/IFIP Working Conference on Software Architecture (WICSA-4), Oslo, Norway, June 2004.

Organizer, WICSA Wiki WAN Party, held at Fourth IEEE/IFIP Working Conference on Software Architecture (WICSA-4), Oslo, Norway, June, 2004.

Organizer and Steering Committee Member of the International Symposium on Component-Based Software Engineering (CBSE7), May 24-25th, 2004.

Organizer, International Workshop on Incorporating COTS into Software Systems: Tools and Techniques (IWICSS), Redondo Beach, California, February 1, 2004.

Technical Committee Member, 29th Euromicro Conference CBSE track, Antalya, Turkey, September,

2003. Organizer, Invitation Only Workshop on Compositional Reliability Analysis, Software Engineering Institute, June, 2003.
- Co-Organizer and Program Co-Chair, Experience Reports Track, International Conference on Software Engineering 2003 (ICSE 2003) to be held in Portland, Oregon, to be held May 2003.
- Organizer and Program Co-chair, Sixth ICSE Workshop on Component-Based Software Engineering, Portland, Oregon, May 2003.
- Organizer, OOPSLA Workshop on Object-Oriented Web Services, Seattle, November 2002.
- Program committee member, 28th EuroMicro Conference: Component-Based Software Engineering, Dortmund, Germany, to be held September 4th – 6th, 2002.
- Co-organizer and Program Chair, Fifth ICSE Workshop on Component-Based Software Engineering, Orlando, Florida, May 2002.
- Organizer, Workshop on Component-Based Software Engineering: Composing Systems from Components held at the 9th IEEE Conference and Workshops on Engineering Component-Based Systems, Lund University, Lund, Sweden, to be held April 10-11 2002.
- Program committee member, The Fourth Australasian Workshop on Software and System Architectures (in conjunction with TOOLS-Pacific 2002), Sydney, Australia, to be held February 2002.
- Co-chair, Workshop on Predictable Assembly of Certifiable Components, Software Engineering Institute, Pittsburgh, Pennsylvania, October 2001.
- Co-chair, Fourth ICSE Workshop on Component-Based Software Engineering, Toronto, Canada, May 2001.

### ***Journal and Book Reviews***

Journal of Systems and Software  
IEEE Transactions on Software Engineering Methods  
IEEE Software  
ACM Transactions on Software Engineering  
Elsevier Journal of Information and Software Technology  
Artech House Publishers  
Prentice Hall Publishers  
Wiley and Sons, Inc.  
Addison Wesley Longman, Inc.  
Cambridge University Press  
Submissions to various conferences and workshops

### **Professional Memberships**

IEEE Computer Society  
International Federation for Information Processing (IFIP) Working Group on Software Architecture (WG2.10)  
Association for Computing Machinery (ACM)

ACM Special Interest Groups on Software Engineering (SIGSOFT) ACM Special Interest Groups on Programming Languages (SIGPLAN)

ACM Special Interest Groups on Computer Science Education (SIGCSE)

American Society for Engineering Education (ASEE)

National Center for Women in Information Technology (NCWIT)

### **Department/University Service**

NCWIT Extension Service for Undergraduate Programs (ES-UP) Coordinator for the College of Engineering and Applied Sciences, November 2014-present.

Department of Computer Science, University of Colorado at Boulder, August 2013 – present.

College of Engineering and Applied Science Undergraduate Education Committee, University of Colorado, August 2013-present

Department of Computer Science Executive Committee, University of Colorado at Boulder, August 2013 - present

Department of Computer Science Curriculum Committee, University of Colorado at Boulder, August 2012 - present.

Department of Computer Science Undergraduate Curriculum Committee, University of Colorado at Boulder, August 2012-present.

Board Member, Tufts University Ex-College, 2010-August 2012

AS&E Information Technology Committee, Tufts University, 2006-August 2012

Undergraduate Committee, Department of Computer Science, Tufts University 2005-August 2012

Graduate Research Awards Committee, Graduate School, Tufts University 2004-2006

Department of Computer Science Liaison with Tisch Library 2004-2005

Commencement Committee, Engineering School, Tufts University, 2003-2004

Graduate Research Awards Committee, Graduate School, Tufts University 2003-2004

Graduate student representative to Chancellor's Committee for Faculty Evaluation, University of Colorado, August 1997 — May 1999

Graduate student representative to the Department of Computer Science Graduate Committee, University of Colorado, August 1997 — August 1998

Graduate student representative to the Department of Computer Science Undergraduate Committee, University of Colorado, August 1995 — August 1997

### **Academic Honors and Awards**

Invited to be Lead Graduate Teaching Assistant for the Computer Science Department, University of Colorado, 1998.

University of Colorado Graduate Fellowship for outstanding service to the Department of

Computer Science, 1996 — 1997.

University of Colorado Graduate Fellowships 1997 — 1998, 1998 — 1999, and 1999 — 2000. Chancellor's Honor Roll, University of Colorado, Spring 1978, Fall 1978, Spring 1979.

## **Graduate Student Assistantships**

### ***Research - 1993 — 2000***

Alexander L. Wolf, Department of Computer Science, University of Colorado at Boulder, June 1997 — May 2000.

Debra J. Richardson, Department of Information and Computer Science, University of California at Irvine, December 1996 — May 1997.

Benjamin G. Zorn, Department of Computer Science, University of Colorado at Boulder, September 1996 — July 1997.

Alexander L. Wolf, Department of Computer Science, University of Colorado at Boulder, May 1995 -- August 1996.

Andrzej Ehrenfeucht, Department of Computer Science, University of Colorado at Boulder, September 1994 — August 1995.

Karl Winkleman, Department of Computer Science, University of Colorado at Boulder, September 1993 — May 1994.

### ***Teaching - 1993 — 1999***

Lead Teaching Assistant for the Department of Computer Science, University of Colorado Graduate Teaching Program, August 1998 — May 1999.

Introduction to Computing, Department of Computer Science, University of Colorado, Spring 1997.

Software Engineering Methods and Tools, Department of Computer Science, University of Colorado, Fall 1996 and Fall 1997.

Introduction to Programming with Pascal, Department of Computer Science, University of Colorado, Summer 1995.

Calculus III, Department of Applied Mathematics, University of Colorado, Summer 1994.

Introduction to Programming II, Department of Computer Science, University of Colorado, Summer 1994.

Calculus I, Department of Applied Mathematics, University of Colorado, Spring 1994.

Data Structures and Algorithms, Department of Computer Science, University of Colorado, Fall 1993.