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Education

<i>Sep 2002</i>	North Carolina State University Doctor of Philosophy in Computer Science Thesis title: "Scenario Networks and Formalization for Scenario Management" Thesis advisor: Annie I. Antón	<i>Raleigh, NC</i>
<i>1980</i>	University of North Carolina Master of Science in Computer Science	<i>Chapel Hill, NC</i>
<i>1977</i>	University of North Carolina at Greensboro Bachelor of Arts in Physics <i>magna cum laude</i>	<i>Greensboro, NC</i>

Employment

<i>2009-</i>	Georgetown University Adjunct Professor Department of Computer Science	<i>Washington, DC</i>
<i>2009-</i>	Institute for Software Research, University of California, Irvine Visiting Researcher	<i>Irvine, CA</i>
<i>2002-2008</i>	University of California, Irvine Assistant Professor Department of Informatics, School of Information and Computer Science	<i>Irvine, CA</i>
<i>1996-2002</i> <i>1996, 1998</i>	North Carolina State University Graduate Research Assistant Graduate Teaching Assistant	<i>Raleigh, NC</i>
<i>1994-95</i>	Hale High School Mathematics Teacher	<i>Raleigh, NC</i>

1989-1995	Full-time parent (daughter born 1988; two step-children)	Raleigh, NC; St-Jeannet, France
1987-89	Data General Corporation Software Engineer and Project Leader	Research Triangle Park, NC
1986	Technical Services Corporation Software Engineer	Chapel Hill, NC
1985-86	Compuchem Laboratories Manager of Software Development	Research Triangle Park, NC
1982-85 1982-83	Naval Research Laboratory Computer Scientist Software Cost Reduction (SCR) Project, also known as the A-7 project Military Message Experiment	Washington, DC
1981-82	International Business Machines Associate Programmer	Research Triangle Park, NC
1981	Research Triangle Institute Consultant	Research Triangle Park, NC

Professional Affiliations

- 1980-present Association for Computing Machinery (ACM)
 1998-present Association for Computing Machinery Special Interest Group on Software Engineering
 1998-present Institute of Electrical and Electronics Engineers (IEEE)

Book Chapters

“Toward Architecture Evaluation Through Ontology-based Requirements-level Scenarios.” Mamadou H. Diallo, Leila Naslavsky, Thomas A. Alspaugh, Hadar Ziv, and Debra J. Richardson. *Architecting Dependable Systems V*, editors R. de Lemos, F. Di Giandomenico, C. Gacek, H. Mucini, and M. Vieira. 2008.

Journal Publications

Thomas A. Alspaugh and Annie I. Antón. “Scenario Support for Effective Requirements.” *Information and Software Technology* **50**(3):190-220, Feb. 2008.

Lihua Xu, Hadar Ziv, Thomas A. Alspaugh, and Debra J. Richardson. “An Architectural Pattern for Non-functional Dependability Requirements.” *Journal of Systems and Software*, special issue on Architecting Dependable Systems. **79**(10):1370–1378, Oct. 2006.

Conference and Workshop Publications

Thomas A. Alspaugh, Hazeline U. Asuncion, and Walt Scacchi. “Intellectual Property Rights Requirements for Heterogeneously-Licensed Systems.” *17th International Requirements Engineering Conference (RE09)*, Atlanta, USA, September 2009. Acceptance rate 21%.

Thomas A. Alspaugh, Hazelinue U. Asuncion, and Walt Scacchi. “Software Licenses, Open Source Components, and Open Architectures.” *Second International Workshop on Emerging Trends in Free/Libre/Open Source Research and Development (FLOSS)*, Vancouver, Canada, May 2009.

Susan Elliott Sim, Thomas A. Alspaugh, and Ban Al-Ani. “Marginal Notes on Amethodical Requirements Engineering: What experts learned from experience.” *16th International Requirements Engineering Conference (RE’08)*, Barcelona, Spain, September 2008. Acceptance rate 11%.

Amanda M. Williams and Thomas A. Alspaugh. “Articulating Software Requirements Comic Book Style.” *Third International Workshop on Multimedia and Enjoyable Requirements Engineering (MERE’08)*, Barcelona, Spain, September 2008.

Walt Scacchi and Thomas A. Alspaugh. “Emerging Issues in the Acquisition of Open Source Software by the U.S. Department of Defense.” *Fifth Annual Acquisition Research Symposium*, Naval Postgraduate School, May 2008.

Mamadou Diallo, Susan Elliott Sim, and Thomas A. Alspaugh. “Case Study, Interrupted: The Paucity of Subject Systems that Span the Requirements-Architecture Gap.” *First Workshop on Empirical Assessment of Software Engineering Languages and Technologies (WEASEL’07)*, Atlanta, GA, November 2007.

Thomas A. Alspaugh, Susan Elliott Sim, Kristina Winbladh, Mamadou Diallo, Hadar Ziv, and Debra J. Richardson. “The Importance of Clarity in Usable Requirements Specification Formats.” *Fifth International Workshop on Comparative Evaluation in Requirements Engineering (CERE’07)*, Delhi, India, October 2007.

Mamadou H. Diallo, Leila Naslavsky, Hadar Ziv, Thomas A. Alspaugh, and Debra J. Richardson. “Evaluating Software Architectures Against Requirements-level Scenarios.” *International Workshop on the Role of Software Architecture for Testing and Analysis (ROSATEA’07)*, Boston, MA, July 2007.

Rand Waltzman, Kristina Winbladh, Thomas A. Alspaugh, and Debra J. Richardson. “In the Requirements Lies the Power.” *International Conference on Software Engineering and Knowledge Engineering (SEKE’07)*, Boston, MA, July 2007. Acceptance rate 43%.

Thomas A. Alspaugh, Eric Baumer, and Bill Tomlinson. “On a Mixed-Methods Evaluation of a Social-Agent Scenario Visualization.” *Fourth International Workshop on Comparative Evaluation in Requirements Engineering (CERE’06)*, pages 60–65, Minneapolis, MN, September 2006.

Kristina Winbladh, Thomas A. Alspaugh, Hadar Ziv, and Debra J. Richardson. “An Automated Approach for Goal-driven, Specification-based Testing.” *International Conference on Automated Software Engineering (ASE’06)*, pages 289-292, Tokyo, Japan, September 2006. Acceptance rate 28%.

Thomas A. Alspaugh, Bill Tomlinson, and Eric Baumer. “Using Social Agents to Visualize Software Scenarios.” *ACM Symposium on Software Visualization (SoftVis’06)*, pages 87-94, Brighton, England, September 2006. Acceptance rate 36%.

Mamadou H. Diallo, Jose Romero-Mariona, Susan Elliot Sim, Thomas A. Alspaugh, and Debra J. Richardson. “A Comparative Evaluation of Three Approaches to Specifying Security Requirements.” *12th Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ’06)*, Luxembourg, June 2006. Acceptance rate 41%.

Kristina Winbladh, Thomas A. Alspaugh, Hadar Ziv, and Debra J. Richardson. “Architecture-based Testing Using Goals and Plans.” *Second International Workshop on the Role of Software Architecture for Testing and Analysis (ROSATEA’06)*, Portland, ME, July 2006.

Leila Naslavsky, Thomas A. Alspaugh, Debra J. Richardson, and Hadar Ziv. “Using Scenarios to Support Traceability.” *Third International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE’05)*, Long Beach, CA, Nov. 2005.

Thomas A. Alspaugh, Debra J. Richardson, and Thomas A. Standish. “Scenario-driven Specification-based Testing against Goals and Requirements.” In *11th International Workshop on Requirements Engineering: Foundation for Software Quality (REFSQ’05)*, Porto, Portugal, June 2005, pp. 187-202. 50%

Thomas A. Alspaugh, Debra J. Richardson, and Thomas A. Standish. “Scenarios, State Machines, and Purpose-Driven Testing.” In *Fourth International Workshop on Scenarios and State Machines: Models, Algorithms and Tools (SCESM’05)*, St. Louis, MO, May 2005, pp. 1-5. 41%

Lihua Xu, Hadar Ziv, Debra Richardson, and Thomas A. Alspaugh. “An architectural pattern for non-functional dependability requirements.” In *2005 Workshop on Architecting Dependable Systems (WADS ’05)*, St. Louis, MO, May 2005, pp. 1-6. 54%

Annie I. Antón, Julia B. Earp, Colin Potts, and Thomas A. Alspaugh. “The role of policy and stakeholder privacy values in requirements engineering.” In *Fifth IEEE International Symposium on Requirements Engineering (RE’01)*, Toronto, Canada, August 2001, pages 138–145. Acceptance rate 28%.

Thomas A. Alspaugh and Annie I. Antón. “Scenario networks: A case study of the enhanced messaging system.” In *Seventh International Workshop on Requirements Engineering: Foundation for Software Quality (REFSQ’01)*, Interlaken, Switzerland, June 2001.

Thomas A. Alspaugh, Annie I. Antón, Tiffany Barnes, and Bradford W. Mott. “An integrated scenario management strategy.” In *Fourth IEEE International Symposium on Requirements Engineering (RE’99)*, Limerick, Ireland, June 1999, pages 142–149. Acceptance rate 24%.

Refereed Research and Tool Demonstrations

Eric Baumer, Bill Tomlinson, Man Lok Yau, and Thomas A. Alspaugh. “Normative Echoes: use and manipulation of player generated content by communities of NPCs.” *Second Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE’06)*, June 2006.

Thomas Alspaugh and Annie I. Antón. “Contrasting Use Case, Goal, and Scenario Analysis of the Euronet System.” Short paper / poster presentation in *Eleventh IEEE International Requirements Engineering Conference (RE’03)*, Monterey Bay, CA, September 2003, pages 355–356.

William Stufflebeam, Annie I. Antón, and Thomas Alspaugh. “SMaRT – Scenario Management and Requirements Tool.” Short paper / research demo in *Eleventh IEEE International Requirements Engineering Conference (RE’03)*, Monterey Bay, CA, September 2003, page 351.

Other Publications

Thomas A. Alspaugh, Stuart R. Faulk, Kathryn Heninger Britton, R. Alan Parker, David L. Parnas, and John E. Shore. “Software Requirements for the A-7E Aircraft.” NRL Memorandum Report 3876, Naval Research Laboratory, Washington, DC, August 1992.

Thesis

Thomas A. Alspaugh. “Scenario networks and formalization for scenario management.” PhD thesis, North Carolina State University, Raleigh, NC, September 2002.

Honors

2007	Chancellor’s Award for Excellence in Fostering Undergraduate Research
1997-99	Hewlett Graduate Fellow, North Carolina State University
1977	Student Excellence Award (UNC-Greensboro’s highest academic honor)
1977	Phi Beta Kappa

Research Funding

- 2008-09* Naval Postgraduate School: “Investigating The Acquisition of Software Systems that Rely on Open Architecture and Open Source Software,” co-PI with Walt Scacchi, \$109,997.
- 2007-08* Naval Postgraduate School: “Investigating The Acquisition and Requirements for Software Systems that Rely on Open Architecture and Open Source Software,” co-PI with Walt Scacchi, \$106,085.
- 2006-07* IBM Corporation: Eclipse Innovation Award “The Scenario Workbench: Semantic editing and transformation of scenarios,” \$18,000.
- 2005-06* Unisys Corporation: “Requirement/Rules Driven Development and Testing,” \$80,000.
- 2000-01* BellSouth Telecommunications: “Toward object-oriented rapid prototyping and code generation,” co-PI with Annie I. Antón, \$75,000.

Invited Presentations

- 2008 Dec* National Institute of Standards and Technology
- 2008 Oct* Georgetown University
- 2008 Aug* North Carolina State University
- 2008 Apr* Fraunhofer Center, University of Maryland
- 2007 Sep* Thomas J. Watson Laboratories
- 2007 Sep* Avaya Laboratories
- 2007 Sep* Fraunhofer Center, University of Maryland
- 2007 Aug* North Carolina State University
- 2007 Apr* George Mason University
- 2007 Mar* Imperial College, London
- 2007 Feb* City University, London
- 2007 Feb* Open University, Milton Keynes, UK
- 2007 Feb* University College London
- 2007 Feb* University of Limerick, Ireland
- 2006 Mar* University of North Carolina at Greensboro
- 2004 Feb* Naval Research Laboratory, Washington, DC
- 2004 Feb* Aerospace Corporation, Manhattan Beach, CA
- 2003 Mar* University College London
- 2002 May* University of Waterloo, Ontario, Canada
- 2002 May* Carnegie Mellon University, Pittsburgh, PA
- 2002 Apr* Michigan State University, East Lansing, MI
- 2002 Apr* Naval Research Laboratory, Washington, DC
- 2002 Apr* Wake Forest University, Winston-Salem, NC
- 2002 Apr* University of California, Irvine
- 2002 Mar* McMaster University, Hamilton, Ontario, Canada

Undergraduate Courses Taught

“Requirements Engineering” (UCI/Informatics 113) (*Fall 2004, Spring 2003*). Created this course.

“Software Engineering” (UCI/Informatics 43 Core Course III) (*Spring 2007*)

“Software Specification and Quality Engineering” (UCI/Informatics 115) (*Spring 2008, Spring 2007, Spring 2006, Spring 2005, Spring 2004*)

“System Fundamentals” (Georgetown/Computer Science 351) (*Spring 2009*)

Graduate Courses Taught

“Formal Specification and Modelling” (UCI/Informatics 213) (*Fall 2007, Fall 2005, Spring 2003*)

“Requirements Engineering” (Georgetown/Computer Science 542) (*Spring 2009*). Created this course.

“Scenario-based requirements engineering” (UCI/ICS 280 Special Topics) (*Spring 2004*)

“Software analysis and testing” (UCI/Informatics 215) (*Spring 2008, Spring 2006, Fall 2003*)

“Software Engineering” (UCI/ICS 221) (*Fall 2004*)

Undergraduate Research Students

20 students for a total of 42 quarters (ICS 199 “Individual Study”) (*Winter 2003 – Winter 2008*).

- Research student Jovel Crisostomo: Chancellor’s Award for Excellence in Undergraduate Research, 2007.
- Research student Brian Paner: ICS Outstanding Contribution to Research Award, 2005.
- Research student James Sutandyo: UCI Summer Undergraduate Research Program Fellowship for \$1500 to support his research during the summer of 2004.
- Directed an undergraduate from another university (Frances Liu, Wellesley) for a summer research project, 2004

Graduate Students Advised

Hye Jung Choi (Ph.D., expected 2014)

Kristina Winbladh (Ph.D., expected 2012)

Mamadou Diallo (withdrew from Ph.D. program, 2008)

Lihua Xu (Ph.D., expected 2009, co-advised)

Benjamin Pillet (withdrew from Ph.D. program, 2005)

Steven Tuttle (withdrew from Ph.D. program, 2004)

Graduate Student Committees

Jose Romero-Mariona (Ph.D., expected 2012)
Sukanya Ratanotayanon (Ph.D., expected 2010)
Leila Naslavsky (Ph.D., expected 2009)
Chris Jensen (Ph.D. expected 2009)
John Georgas (Ph.D. 2008)
Girish Suryanarayana (Ph.D. 2007)
Roger Ripley (M.S. 2004)

Other Graduate Research Students

12 researchers for a total of 33 quarters (ICS 299 “Individual study” *Winter 2003 – Winter 2007*).

Service to the Research Community

Organizing committees

(RE'09) International Requirements Engineering Conference: Finance Chair
(RE'08) International Requirements Engineering Conference: Workshops Chair
(RE'07) International Requirements Engineering Conference: Publicity Co-Chair
(CERE'07) Comparative Evaluation in Requirements Engineering: Co-Organizer
(ASE'05) Automated Software Engineering: Demonstrations Co-Chair

Program committees

(IASTED SE 2006) International Conference on Software Engineering
(ICSE'07) Workshops/Co-Located Events committee, International Conference on Software Engineering
(RE'07, '08, '09) International Requirements Engineering Conference
(REFSQ'03-'08) Int'l Working Conference on Requirements Engineering: Foundation for Software Quality
(RHAS'03) Requirements for High-Assurance Software workshop
(SREIS'05) Symposium on Requirements Engineering For Information Security
(WER'07, '08, '09) Workshop on Requirements Engineering

Journal reviews

ACM Transactions on Software Engineering Methodology (TOSEM): 2007, 2004 (twice), 2003
IEEE Computer: 2003
IEEE Software: 2008, 2007, 2003
IEEE Transactions on Software Engineering (TSE): 2009, 2006 (twice), 2005, 2004 (twice), 2003
Information and Software Technology: 2008, 2006

International Journal on Software Tools for Technology Transfer (STTT): 2003
Notre Dame Journal of Formal Logic: 2006
Requirements Engineering Journal (REJ): 2008, 2005, 2004
Software and System Modeling (SoSym): 2003

Conference external reviews

(ASE'05) Automated Software Engineering
(CHI'05) Human Factors in Computing Systems
(FSE'04) Foundations of Software Engineering
(SREIS'01) Symposium on Requirements Engineering for Information Security
(ICRE'01) International Conference on Requirements Engineering

Other service

2008 Reviewer for Army Research Office
2006 Session co-chair, Automated Software Engineering (ASE'06)
2006 Session chair, Institute for Software Research, 2006 Research Forum
2005 Student volunteers coordinator, Automated Software Engineering (ASE'05)
2005 National Science Foundation panelist
2004 Session co-chair, Ground Systems Architecture Workshop (GSAW'04) session
2003 Session chair, Requirements for High Assurance Systems workshop (RHAS'03)
2001 Session chair, Symposium on Requirements Engineering for Information Security (SREIS'01)
2000-02 Graduate student mentor to four CRA-W Distributed Mentor Project students
2000-02 Editor, *RE Students Newsletter*
2000-present Full bibliography contributor to the Collection of Computer Science Bibliographies (CCSB)

Service to the University Community

Campus-wide service at the University of California, Irvine

2003-2005 Divisional Senate Assembly
2003-2005 Honors Advisory Panel
2003-2008 Phi Beta Kappa nominating committee

Donald Bren School of Information and Computer Science

2006 ICS commencement reader
2005-2006 Graduate Student Recruitment and Admissions Committee
2005 ICS commencement platform marshal and reader
2002-2003 Computing and Network Committee

2003 Invited talk, UCI Student ACM chapter

Department of Informatics

2006 Software Phase II exam coordinator (Spring)
2005 Informatics Ph.D. Phase II examination development committee
2003 Software Phase II exam coordinator (Fall)
2003 Department hiring letter for new faculty member

Community Service and Activity

2004 Precinct poll worker, Irvine, CA
1996-2002 Precinct election official (Judge, Chief Judge, county floating Chief Judge)
1998-2000 Capitol Area Preservation historic preservation volunteer
1999-2002 Raleigh Oratorio Society, tenor section leader
1991-92 Volunteer artist for community center newsletter (Centre Culturel La Coupole de La Gaude)

April 22, 2009

References for Thomas A. Alspaugh

Dr. Annie I. Antón (Ph.D. advisor)
Professor, Department of Computer Science
North Carolina State University
Raleigh, NC 27695-8206
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Phone: (919) 515-5764

Dr. Rance Cleaveland
Professor, Department of Computer Science
Executive and Scientific Director, Fraunhofer USA Center for Experimental Software Engineering
University of Maryland
College Park, MD 20742
Email: rance@cs.umd.edu
Phone: (301) 405-8572

Dr. Steve Easterbrook
Professor, Department of Computer Science and Academic Director, Bell University Labs
University of Toronto
40 St. George St.
Toronto, Ontario M5S 2E4
Canada
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Phone: (416) 978 4765

Dr. Bashar Nuseibeh
Professor of Computing and Director of Research, Computing Department
The Open University
Walton Hall, Milton Keynes MK7 6AA
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Dr. David Redmiles
Associate Professor and Chair, Department of Informatics
University of California, Irvine
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Dr. Debra J. Richardson
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Irvine, California 92697-3425
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