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Vision: It is possible to build high quality software in a timely manner.

As an Associate Professor of Computer Science at Clemson University I conduct research activities and teach undergraduate and graduate courses. My research is focused on strategic software engineering. I develop techniques that support corporations' efforts to radically improve their productivity relative to producing software-intensive products. My research team is working on tools and techniques that support large scale reuse.

As a Senior Partner of Luminary Software, I have had more than thirty years experience with research and trends of software design and development. I have over a decade of substantial experience working on a wide variety of systems developed using object-oriented techniques. This experience includes distributed, real time, embedded systems as well as business information systems in a multi-tiered environment. I have worked in various domains. These include telephony, financial, personnel, medical, scientific, aerospace, and the murky regions of legal domain and expert witness testimony. My roles vary from an independent consultant mentoring corporate and project management through an actual project team member assisting with day-to-day tasks. I have assisted software development organizations transition their projects as they adopted new techniques such as product line development, object-oriented development, and iterative, incremental development. In addition, as an instructor I have developed and conducted classes that are highly rated by the attendees.

As a Visiting Scientist at the Software Engineering Institute I have 11 years of experience working with world class software engineers and researchers addressing the problems of government agencies and corporations. The SEI team with which I work is internationally recognized for work in software product lines and software architecture. We have assisted with software product lines in domains such as automotive, medical, financial, and aviation.

EDUCATION

1976	Ph.D. in Mathematics, Peabody College of Vanderbilt University, Nashville, TN.
1971	M.S. in Mathematics, Peabody College of Vanderbilt University, Nashville, TN.
1970	B.S. in Physics, Peabody College of Vanderbilt University, Nashville, TN.

EXPERIENCE - CONSULTING

Roles

Mentor - Guided Project Managers, Technical Managers, Team Leaders and Software Developers in the transition of their roles on projects that were adopting object-oriented development techniques and/or iterative, incremental development processes. Developed strategies for successful conversion to a software product line approach.

Consultant - Defined development and/or testing processes for both ISO-certified and CMM-evaluated companies; managed domain and application analyses; mentored design and development of software, including ground support software for satellite operations and test systems for electronic hardware; defined and evaluated software architectures.

Instructor - Developed and conducted courses on the following topics:

Product line software development practices and processes
Basic object-oriented concepts
Advanced case studies
Design patterns
Testing techniques for individual components and systems, including distributed systems
Project management

Expert Witness - Assisted in strategy definition, collection and analysis of information; provided trial support and testimony.

Researcher - Applied basic research results to specific industrial strength problems, most recently in the areas of testing and metrics.

Domains

Telephony - basic services, wireless and switching software/hardware.

Financial/Insurance - widely distributed, multi-platform transaction processing systems.

Personnel/Management Information - loosely integrated frameworks for management information applications.

Medical Instrumentation - highly accurate, embedded control systems.

Scientific Computation - automatic generation of programs for solving systems of partial differential equations.

Aerospace - ground support for satellite operations.

Environments

Project Size: 2 – 1000 people.

Characteristics of projects: Multi-sited; cross-cultural; hierarchical; homogeneous.

Platforms: Unix, Windows NT, and CORBA with both standard and proprietary hardware.

Languages: Java, C++, Smalltalk, CLOS and various others.

Clients

Consulting clients have included Honeywell, TSI, NASA, AT&T Bell Labs, Lucent, Ericsson, Nokia, PrincipalOne Financial Group, BNR, Lotus Development, Abbott Laboratories, Sterling Winthrop Pharmaceuticals R & D, Oxford Industries and many others.

EXPERIENCE - ACADEMIC

I have held various full-time, tenured positions at the institutions listed below. Most faculty experience has been in computer science. Administrative experience has been at both the department and institution levels.

- 08/99 to Present **Visiting Scientist:** Software Engineering Institute - Product Line Initiative, Carnegie Mellon University, Pittsburgh, PA.
- 08/89 to Present **Associate Professor of Computer Science:** Clemson University, Clemson, SC.
- 08/83 to 07/89 **Professor of Computer Science and Chairman:** Murray State University, Murray, KY.
- 08/77 to 08/83 **Associate Professor of Computer Science and Chairman:** Christopher Newport College, Newport News, VA.
- 1973 to 1977 **Assistant Professor and Associate Dean:** Paine College, Augusta, GA.

PUBLICATIONS

Books or Chapters

- 2009 Paul Clements, Larry G. Jones, Linda M. Northrop, and John D. McGregor. Getting There from Here: A Roadmap for Software Product Line Adoption, published in Applied Software Product Line Engineering, edited by Kyo C Kang, Vijayan Sugumaran, Sooyong Park, published by Taylor and Francis, 2009.
- 2006 Melissa L. Russ and John D. McGregor, Management Planning in a Changing Development Environment, published in Management of the Object-Oriented Development Process, edited by Liping Liu and Borislav Roussev, published by Idea Group Publishing, 2006. ISBN 1591406056.
- 2001 A Practical Guide to Testing Object-Oriented Software, with David A. Sykes, Addison-Wesley, 2001.
- 2000 “Testing Practice Area”, chapter in A Framework for Software Product Line Practice - Version 3.0, Software Engineering Institute, Carnegie Mellon University, 2000.
- 2000 “Component Development Practice Area”, chapter in A Framework for Software Product Line Practice - Version 3.0,

Software Engineering Institute, Carnegie Mellon University, 2000.

- 1999 “Capturing Framework Requirements”, chapter with Granville G. Miller and Melissa L. Major in Object-Oriented Application Frameworks, John Wiley & Sons, Inc., 1999.
- 1992 Object-Oriented Software Development: Engineering Software for Reuse, with David A. Sykes, International Thomson Computer Press, 1992.

As part of the Leducq Foundation grant I am a part of the Modeling of Congenital Hearts Alliance (MOCHA) Investigators. The following papers have been published as part of that effort:

Use of mathematical modeling to compare and predict hemodynamic effects between hybrid and surgical Norwood palliations for hypoplastic left heart syndrome.

Hsia TY, Cosentino D, Corsini C, Pennati G, Dubini G, Migliavacca F; Modeling of Congenital Hearts Alliance (MOCHA) Investigators. *Circulation*. 2011 Sep 13;124(11 Suppl):S204-10.

Virtual surgeries in patients with congenital heart disease: a multi-scale modelling test case.

Baretta A, Corsini C, Yang W, Vignon-Clementel IE, Marsden AL, Feinstein JA, Hsia TY, Dubini G, Migliavacca F, Pennati G; Modeling of Congenital Hearts Alliance (MOCHA) Investigators. *Philos Transact A Math Phys Eng Sci*. 2011 Nov 13;369(1954):4316-30.

Papers or Reports

- 2012 Paul Clements and John McGregor. Better, faster, cheaper: Pick any three, <http://dx.doi.org/10.1016/j.bushor.2011.12.001>.
- 2/12 Paul Clements and John D. McGregor. Better, faster, cheaper, pick any three. *Business Horizons*, v55, n2, Elsevier, 2012.
- 8/11 Andy J. Nolan, Silvia Abrahão, Paul C. Clements, John D. McGregor, Sholom Cohen: Towards the Integration of Quality Attributes into a Software Product Line Cost Model. *SPLC 2011*: 203-212
- 8/11 Gary J. Chastek, Patrick Donohoe, John D. McGregor, Dirk Muthig: Engineering a Production Method for a Software Product Line. *SPLC 2011*: 277-286
- 8/11 Silvia Abrahão, Andy J. Nolan, Paul C. Clements, John D. McGregor: Quantitative methods in software product line engineering. *SPLC Workshops 2011*: 38
- 8/11 John D. McGregor, J. Yates Monteith, Jie Zhang: Quantifying value in software product line design. *SPLC Workshops 2011*: 40
- 5/11 Gary Chastek, Patrick Donoho and John D. McGregor. Commonality and Variability Analysis for Resource Constrained Organizations, Please 2011.
- 5/11 Yates Monteith and John D. McGregor. Integrating Instructional and Study Materials for a Student-specific Resource, *CSEET 2011*.
- 1/11 Paulo Anselmo da Mota Silveira Neto, Ivan do Carmo Machado, John D. McGregor, Eduardo Santana de Almeida, Silvio Romero de Lemos Meira: A systematic mapping study of software product lines testing. Information & Software Technology 53(5): 407-423 (2011)
- 9/10 John D. McGregor. The Trouble with Configuration Management, *Journal of Object Technology*, Sept 2010.
- 9/10 Paul Clements, John D. McGregor, and Len Bass. Eliciting and Capturing Business Goals to Inform a Product Line’s Business Case and Architecture, *SPLC 2010*, [Lecture Notes in Computer Science](#), 2010, Volume 6287/2010, 393-405.
- 9/10 John D. McGregor and Peter Bell. Tame The Code Beast, *Dr. Dobbs’ Journal*, Sept 2010.
- 8/10 John D. McGregor. A Method for Analyzing Software Product Line Ecosystems, 1st International Workshop on Software Ecosystems, August 2010.
- 6/10 Kyungsoo Im and John D. McGregor. Locating Defects in Software Architectures Through Debugging, *SEDE 2010*.
- 6/10 Tacksoo Im and John D. McGregor. Reasoning about Attribute Architectures, *SEKE 2010*.
- 5/10 V. Patel, J. McGregor and S. Goasguen “SysFlow: A Workflow Engine for Service Based Infrastructures” *IEEE Sysconf 2010*, May 2010, CA
- 5/10 Markus Völter and John D. McGregor. The Model Craftsman: A Cost Effective Approach to Craftsmanship, *Agile*

- 5/10 John D. McGregor, Dirk Muthig, Kentaro Yoshimura, Paul Jensen: Guest Editors' Introduction: Successful Software Product Line Practices. *IEEE Software* 27(3): 16-21 (2010)
- 3/10 John Hunt and John McGregor. "Component Based Software Engineering Across the Curriculum", Conference on Software Engineering Education and Training (CSEET 2010), Carnegie Mellon University, Pittsburgh, PA, USA, March 9-12, 2010
- 8/09 Dirk Muthig, John D. McGregor: Software Product Lines, 13th International Conference, SPLC 2009, San Francisco, California, USA, August 24-28, 2009, Proceedings ACM 2009
- 8/09 Formulation of a Production Strategy for a Software Product Line by Gary J. Chastek, Patrick Donohoe, and John D. McGregor. CMU/SEI-2009-TN-025, 2009.
- 4/09 Debugging Support for Security Properties of Software Architectures. Kyungsoo Im and John D. McGregor *Cyber Security and Information Intelligence Research Workshop (CSIIRW 2009)*, Oak Ridge National Laboratory, Oak Ridge, Tennessee, APRIL 13-15, 2009.
- 1/09 Gary Chastek, Linda Northrop, John D. McGregor. PRODUCTION PLANNING FOR A SOFTWARE PRODUCT LINE, JANUARY 2009.
- 6/08 "Toward a Reasoning Framework for Dependability" with Tacksoo Im, The 38th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, 2008.
- 4/08 Debugging Software Architectures with Kyungsoo Im, Saturn 2008, Pittsburgh, PA.
- 3/08 Automating Test Case Definition Using a Domain Specific Language. Kyungsoo Im, Tacksoo Im, and John D. McGregor *Proceedings of the 46th Annual ACM Southeast Conference (ACMSE 2008)*, Auburn, Alabama, March 28-29, 2008.
- 9/07 The Implications of Variation for Testing in a Software Product Line. With Kyungsoo Im, [SPLC \(2\) 2007](#): 59-64.
- 7/07 "Using an Architecture Reasoning Tool to Teach Software Architecture" with Len Bass, Phil Bianco, Felix Bachman, and Mark Klein. CSEET 2007, July 2007.
- 4/07 "When Less is More: Implementing Optional Features," with John Hunt. ACM Southeast Conference 2007, Winston-Salem, NC, March 2007.
- 12/06 "Software Product Lines: A Pedagogical Application," with John Hunt. *The Journal of Computing Sciences in Colleges*, Volume 22 Number 2, December 2006.
- 8/06 "Implementing a Variation Point: A Pattern Language," with John Hunt. Variability Management Workshop in conjunction with 10th International Software Product Line Conference, Baltimore, MD, August 2006.
- 3/06 "A Series of Choice: Variability in the Development Process" with John Hunt. ACM SE Conference 2006 Melbourne, FL, March 10-12 2006.
- 10/05 "Model for Software Libraries" with John Hunt. Library Centric Software Design Workshop in conjunction with OOPSLA 2005 San Diego Oct 16-2- 2005.
- 10/05 "Integrating Domain-Specific Modeling into the Production Method of a Software Product Line" with Gary Chastek in Proceedings of the 5th OOPSLA Workshop on Domain-Specific Modeling (DSM~R05), Tolvanen, J.-P., Sprinkle, J., Rossi, M., (eds.), Computer Science and Information System Reports, Technical Reports, TR-36, University of Jyväskylä, Finland 2005, ISBN 951-39-2202-2.
- 9/05 Project Management in a Software Product Line Organization, with Paul Clements, Larry Jones, and Linda Northrop. *IEEE Software*, Sept. - Oct 2005.
- 9/05 "Early Aspects in Software Product Line in Product Production", with Gary Chastek, [Aspects and Software Product Lines: An Early Aspects Workshop](#) at SPLC-Europe 2005, Rennes, France, 26 September 2005.
- 7/05 Component Specification for Enterprise Software Development on Web Services Environment, with Il-Hyung Cho, SERA 2005.
- 5/05 [Preparing for Automated Derivation of Products in a Software Product Line](#) (CMU/SEI-2005-TR-017).
- 3/05 [The Structured Intuitive Model for Product Line Economics \(SIMPLE\)](#) with Paul Clements and Sholom Cohen. CMU/SEI-2005-TR-003.
- 7/04 "Computing Return on Investment for Software Product Lines" with Guenter Boeckle, Siemens; Paul Clements, Software Engineering Institute; Dirk Muthig and Klaus Schmid, Fraunhofer Institute for Experimental Software Engineering, *IEEE Software*, July/August 2004.
- 11/03 "A Cost Model for Software Product Lines" with Guenter Boeckle, Siemens; Paul Clements, Software Engineering Institute; Dirk Muthig and Klaus Schmid, Fraunhofer Institute for Experimental Software Engineering. Proceedings of the Product Family Engineering Conference – 5.
- 6/03 "Measuring and Communicating Component Reliability" with Judith Stafford and Il-Hyung Cho. Proceedings of

SERA'03, 2003.

- 6/03 "The Evolution of Product Line Assets", Software Engineering Institute, CMU/SEI-2003-TR-005.
- 5/03 "Measuring Component Reliability" with Judith Stafford and Il-Hyung Cho. Proceedings of the Sixth ICSE Workshop on Component-Based Software Engineering, May 2003.
- 11/02 "Product Line Production Planning for the Home Integration System Example," with Gary Chastek and Patrick Donohoe, Software Engineering Institute, CMU/SEI-2002-TN-029.
- 6/02 "Guidelines for Developing a Product Line Production Plan" with Gary Chastek, Software Engineering Institute, CMU/SEI-2002-TR-006.
- 5/02 "Issues in Predicting the Reliability of Composed Components" with Judith Stafford. Proceedings of the Fifth ICSE Workshop on Component-Based Software Engineering, May 2002.
- 12/01 "Testing a Software Product Line", Software Engineering Institute, CMU/SEI-2001-TR-022.
- 11/01 "Evaluating Test Information in an Acquisition Proposal" with Bill Wood, Proceedings of ELEVENTH INTERNATIONAL CONFERENCE ON SOFTWARE QUALITY
- 03/01 "Fifth Product Line Practice Workshop Report" with Paul Clements, Patrick Donohoe, Kyo Kang, and Linda Northrop, CMU/SEI-2001-TR-027.
- 12/00 "The Testing Perspective", The Journal of Software Testing Professionals, v1, n4, 2000.
- 12/00 "A Taxonomy of Module Interaction for Object-Oriented Testing" with Allen Parrish, David Cordes and Brandon Dixon, ACIS International Journal of Computer and Information Science, Winter 2000.
- 09/00 "Exploiting IO Streams to Incorporate a GUI into a Command-driven Application" with Brian Malloy and Shannon Hughes, International Journal of Computers and Applications, 2000.
- 03/00 "Fourth Product Line Practice Workshop Report" with Len Bass, Paul Clements, Patrick Donohoe and Linda Northrop, CMU/SEI-2000-TR-002.
- Ended Periodic column on Testing and Quality for the Journal of Object-Oriented Programming.
- 1999
- 01/98 "Creating an Event Driven Simulation Infrastructure Using the RMI feature of Java", Western MultiConference '98, January 1998.
- 10/97 "Using a Juried Approach for Design Pattern Validation", 7th International Conference on Software Quality, October 1997.
- 06/96 "A Testing Effort Metric", Proceedings of the Conference on Object-Oriented Technology, June 1996.
- 06/96 "Testing Object-Oriented Components" with Anuradha Kare, Proceedings of the 17th International Conference on Testing Computer Software, June 1996.
- 05/96 "A Component Test Strategy for Object-Oriented Software", Proceedings of the Ninth International Quality Week, May 1996.
- 04/96 "Let Architectural Reuse Guide Component Reuse", Object Magazine, April 1996, pp. 38 - 47.
- 1996 "A Comprehensive Program Representation of Object-Oriented Software" with Brian A. Malloy and Rebecca L. Siegmund, Annals of Software Engineering, volume 2, 1996.
- 10/95 "Incorporating Reusability and Extensibility into the CS2 Curriculum" with Brian Malloy, Devidas Gupta and Anuradha Kare, Proceedings of the OOPSLA'95 Educators' Symposium, October 1995.
- 1995 "Managing Metrics in an Iterative Environment", Object Magazine, 5(6), 1995, pp. 65 - 71.
- 1995 "Strategies for Closed Laboratory Development and Implementation" with Ms. Brenda C. Parker, SIGCSE Bulletin, 1995.
- 12/94 "An Extensible Program Representation for Object-Oriented Software" with Brian Malloy, Anand Krishnaswamy and Murali Medikonda, SIGPLAN Notices, Dec. 1994.
- 09/94 "Integrating Object-oriented Testing and Development Processes" with Timothy D. Korson, Communications of the ACM, September 1994, pp. 59 - 77.
- 1994 "Testing Object-Oriented Software", Proceedings of Software Development '94.
- 1994 "Constructing Functional Test Cases Using Incrementally Derived State Machines", Proceedings of Eleventh International Conference on Testing Computer Software, 1994.

- 1994 "Functional Testing of Classes", Proceedings of Seventh International Software Quality Week, 1994.
- 10/93 "A Note on Inheritance and State Machines" with Douglas Dyer, Software Engineering Notes, Oct. 1993.
- 02/93 "Supporting Dimensions of Classification in Object-Oriented Design" with Timothy Korson, Journal of Object-Oriented Programming, Feb 1993.
- 1993 "The Selection of State-based Test Cases" with Douglas Dyer, 1993 Pacific Northwest Software Quality Conference, 1993.
- 1993 "The Implementation of a Simulation Language Using Dynamic Binding" with Brian Malloy and Mary Jean Harrold, 1993 Western Simulation MultiConference, SCS, 1993.
- 05/92 "Incremental Testing of Object-Oriented Class Structures" with Mary Jean Harrold, Proceedings of the Fourteenth International Conference on Software Engineering, May, 1992.
- 02/92 "Toward a Testing Methodology for Object-oriented Software Systems" with Mary Jean Harrold, Proceedings of the Workshop on Object-oriented Software Engineering Practice, February 1992.
- 1992 "A Framework of Classes for Object-Oriented Simulation" with Brian Malloy, 23rd Annual Pittsburgh Conference on Modeling and Simulation, 1992.

COLUMNS IN JOURNAL OF OBJECT TECHNOLOGY

03/04	"Software Product Lines", in <i>Journal of Object Technology</i> , vol. 3, no. 3, March-April 2004, pp. 65-74. http://www.jot.fm/issues/issue_2004_03/column6
05/04	"Software Architecture", in <i>Journal of Object Technology</i> , vol. 3, no. 5, May-June 2004, pp. 65-77. http://www.jot.fm/issues/issue_2004_05/column7
07/04	"Domain *", in <i>Journal of Object Technology</i> , vol. 3, no. 7, July-August 2004, pp. 71-81. http://www.jot.fm/issues/issue_2004_07/column6
09/04	"The Weak Link in the Supply Chain", in <i>Journal of Object Technology</i> , vol. 3, no. 8, September-October 2004, pp. 71-80. http://www.jot.fm/issues/issue_2004_09/column7
11/04	"Product Production", in <i>Journal of Object Technology</i> , vol. 3, no. 10, November-December 2004, pp. 89-98. http://www.jot.fm/issues/issue_2004_11/column7
1/05	"Community", in <i>Journal of Object Technology</i> , vol. 4, no. 1, January-February 2005, pp. 59-66. http://www.jot.fm/issues/issue_2005_01/column5
3/05	"Metrics", in <i>Journal of Object Technology</i> , vol. 4, no. 2, March - April 2005, pp. 49-58 http://www.jot.fm/issues/issue_2005_03/column5
5/05	"Secure Software", in <i>Journal of Object Technology</i> , vol. 4, no. 4, May-June 2005, pp. 33-42 http://www.jot.fm/issues/issue_2005_05/column3
7/05	"Customer Interface Management", in <i>Journal of Object Technology</i> , vol. 4, no. 5, July-August 2005, pp. 19-25 http://www.jot.fm/issues/issue_2005_07/column2
9/05	"Context", in <i>Journal of Object Technology</i> , vol. 4, no. 7, September - October 2005, pp. 35-44, http://www.jot.fm/issues/issue_2005_09/column4
11/05	"Ideas from SPLC", in <i>Journal of Object Technology</i> , vol. 4, no. 9, November-December 2005, pp. 23-29, http://www.jot.fm/issues/issue_2005_11/column3
1/06	"Complexity, its in the mind of the beholder", in <i>Journal of Object Technology</i> , vol. 5, no. 1, January-February 2006, pp. 31-37, http://www.jot.fm/issues/issue_2006_01/column3
3/06	"Planning before plans", in <i>Journal of Object Technology</i> , vol. 5, no. 2, March-April 2006, pp. 27-34 http://www.jot.fm/issues/issue_2006_03/column3
5/06	"Breathing life into "living documents", in <i>Journal of Object Technology</i> , vol. 5, no. 4, Mai-June 2006, pp. 17-21 http://www.jot.fm/issues/issue_2006_05/column2
7/06	"Professional development", in <i>Journal of Object Technology</i> , vol. 5, no. 6, July-August 2006, pp. 17-22 http://www.jot.fm/issues/issue_2006_07/column2
11/06	"Natures and Perspectives", in <i>Journal of Object Technology</i> , vol. 5, no. 8, November-December 2006, pp. 7-13 http://www.jot.fm/issues/issue_2006_11/column1
1/07	"CM - Configuration Change Management", in <i>Journal of Object Technology</i> , vol. 6, no. 1, January-February 2007, pp. 7-15 http://www.jot.fm/issues/issue_2007_01/column1
3/07	"Dependability", in <i>Journal of Object Technology</i> , vol. 6, no. 3, March-April 2007, pp. 7-12

	http://www.jot.fm/issues/issue_2007_03/column1
5/07	"Test early, test often", in <i>Journal of Object Technology</i> , vol. 6, no. 4, May-June 2007, pp. 7-14 http://www.jot.fm/issues/issue_2007_05/column1
7/07	"Openness", in <i>Journal of Object Technology</i> , vol. 6, no. 6, July - August 2007, pp. 7-14 http://www.jot.fm/issues/issue_2007_05/column1
9/07	"Form over Substance", in <i>Journal of Object Technology</i> , vol. 6, no. 8, September - October 2007, pp. 9-17 http://www.jot.fm/issues/issue_2007_09/column1
11/07	"Value", in <i>Journal of Object Technology</i> , vol. 6, no. 10, November-December 2007, pp. 9-15 http://www.jot.fm/issues/issue_2007_10/column1/
1/08	"It depends on what you mean by 'working'", in <i>Journal of Object Technology</i> , vol. 7 no. 1, January – February 2008, pp 7-15 http://www.jot.fm/issues/issue_2008_01/column1/
3/08	"An Increase In Value", in <i>Journal of Object Technology</i> , vol. 7 no. 3, March–April 2008, pp 7 - 16 http://www.jot.fm/issues/issue_2008_03/column1/
5/08	"Pay me now or pay me more later", in <i>Journal of Object Technology</i> , vol. 7 no. 4, May - June 2008, pp 7 - 18 http://www.jot.fm/issues/issue_2008_05/column1/
7/08	"Mix and Match", in <i>Journal of Object Technology</i> , vol. 7 no. 4, July-August 2008, pp 7 - 16 http://www.jot.fm/issues/issue_2008_07/column1/
9/08	"Qualitative SIMPLE", in <i>Journal of Object Technology</i> , vol. 7, no. 7, September - October, pp. 7-16 http://www.jot.fm/issues/issue_2008_09/column1/
11/08	"Agile Software Product Lines, Deconstructed", in <i>Journal of Object Technology</i> , vol. 7, no. 8, November-December, pp. 7-19 http://www.jot.fm/issues/issue_2008_11/column1/
1/09	"Modeling Software", in <i>Journal of Object Technology</i> , vol. 8, no. 1, January – February 2009, pp. 7-22 http://www.jot.fm/issues/issue_2009_01/column1/
3/09	"Variation Verification", in <i>Journal of Object Technology</i> , vol. 8, no. 2, March-April 2009, pp. 7-14 http://www.jot.fm/issues/issue_2009_03/column1/
5/09	"Strategic Software Engineering", in <i>Journal of Object Technology</i> , vol. 8, no. 3, May-June 2009, pp. 7-15 http://www.jot.fm/issues/issue_2009_05/column1/
7/09	"Goal-driven Product Derivation", in <i>Journal of Object Technology</i> , vol. 8, no. 5, July-August 2009, pp. 7-19 http://www.jot.fm/issues/issue_2009_07/column1/
9/09	"Ecosystem", in <i>Journal of Object Technology</i> , vol. 8, no. 6, September-October 2009, pp. 7-16 http://www.jot.fm/issues/issue_2009_09/column1/
11/09	"Ecosystem, continued", in <i>Journal of Object Technology</i> , vol. 8, no. 7, November-December 2009, pp. 7-23 http://www.jot.fm/issues/issue_2009_11/column1/
1/10	"Intentionality", in <i>Journal of Object Technology</i> , vol. 9, no. 1, January-February 2009, pp. 7-13 http://www.jot.fm/issues/issue_2010_01/column1/
3/10	"Attached Processes", in <i>Journal of Object Technology</i> , vol. 9, no. 2, March – April 2010, pp. 7-16 http://www.jot.fm/issues/issue_2010_01/column1/
5/10	"It's a Small World – Globalize Everything", in <i>Journal of Object Technology</i> , vol. 9, no. 3, May – June, 2010.

PRESENTATIONS

2012	It Takes an Ecosystem presented at SSTC 2012 (Systems and Software Technology Conference)
2012	A Mashup of Techniques to Create Reference Architectures presented at SATURN 2012 (SEI Architecture Technology User Network)
2009	Keynote address: Product Derivation in a Software Product Line, WIRE 2009, Recife Brazil
2007	Test Assets in a Software Product Line, 1/2 day tutorial presented at Software Product Line Conference (SPLC2007), 2007.
2003	Guided Inspection of UML Models, ½ day tutorial presented at OOPSLA'03.
2003	Testing Component-based Systems, ½ day tutorial presented at SERA
2002	Test Assets in a Software Product Line, 1/2 day tutorial presented at Software Product Line Conference (SPLC2), 2002.

2000	Test Assets in a Software Product Line, 1/2 day tutorial presented at the SEI Software Engineering Symposium, 2000.
2000	Test Assets in a Software Product Line, 1/2 day tutorial presented at Software Product Line Conference (SPLC1), 2000.
1995-2000	"Testing Object-Oriented Components, Testing Object-Oriented Systems, Testing Distributed Object Systems", OOPSLA'00, OOPSLA'99, OOPSLA'98, OOPSLA'97, OOPSLA'96, OOPSLA'95.
1997-1999	"Testing Object-Oriented Components", ECOOP'99, ECOOP'98, ECOOP'97. Presentations at OTC, STAR, various SIGS conferences and others.

FUNDED RESEARCH ACTIVITIES

In the last few years funded research grants have been replaced by the Visiting Scientist position at the Software Engineering Institute (SEI). The SEI is funded directly by the Department of Defense and industry partners rather than individual research grants. The SEI funds my travel, provides assistants to handle many issues such as programming, and access to brilliant researchers. My research during this period is documented in a number of the published papers and conference presentations listed above. This research has been conducted in association with the research staff of the SEI (rated the #1 software engineering research facility) and various government and industrial partners.

Leducq Foundation, Paris – 6.5 million over 5 years for single ventricular cardiology surgical planning

NASA (\$30,000) – 12 months for studying commonality and variability analysis

DARPA (\$45,000) - 12 months for adding object-oriented concepts to introductory computer science courses.

DARPA (\$65,000) - 12 months.

IBM & Bell Northern Research (\$165,000) - 24 months.

National Science Foundation (\$60,000) - 18 months grant.

National Science Foundation (\$290,000) - 3 year grant.

Defense Logistics Agency (\$94,904) - 25 months.

Lawrence Livermore National Laboratory (\$25,000) - 8 months in Livermore, CA.

OTHER PROFESSIONAL ACTIVITIES

Reviewer

External Doctoral Dissertation Reviewer - Monash University, 1999, 2001, and 2011.

Research Proposal Reviewer - NSF, NASA's Jet Propulsion Lab, Natural Sciences and Engineering Research Council of Canada, and the Research Council of Australia.

Reviewer - NECC, ACM's Computer Science Conference, and SIGCSE Symposium.

Referee - Computing Reviews, Computer, LOPLAS and the **Journal of Computing and Information Technology** published in Zagreb, Croatia.

Chair or Committee Member Program Committee - [ABT@WICSA2011](#)

Member

Program Committee - [CSEE&T-2011](#)

Program Committee - [IWSECO 2011](#)

Program Committee - [SPLC'11](#)

Program Committee - [VAST 2011](#)

Program Committee – ICGSE 2011

Steering Committee Chair - SPLC
Program Chair – SPLC 2009
Program Committee: EA@ICSE 2009
Conference Chair – ACMSE 2009
Program Committee - 2008
Workshop Chair for SPLiT 2007 and 2008.
Conference Chair – SPLC 2006
Program Committee member – OOPSLA 2004, SPLiT 2004, SPLiT 2005, SPLC 2005, SPLC2007, SPLC2008, SPLC 2009, SPLC 2010
Conference Program Committee - Tools USA, 2000 and 2001.
Doctoral Symposium Chair - ACM's 2003, 1998 and 1997 OOPSLA Conference.
Tutorials Chair – SPLC'04, ACM's 1993 OOPSLA Conference.
Workshop Chair - ACM's 1992 OOPSLA Conference.
Conference Chairman - National Educational Computing Conference, 1990.
Program Chair - ACM's Computer Science Conference, 1989.
Team Chair and Program Evaluator - CSAC.

Invited Speaker or Lecturer

Space Telescope Science Institute, 2011
WIRE 2009
PSSE 2007
Invited Speaker - numerous object-oriented conferences such as Object World, C++ at Work, and Object Expo.
University of Alabama, Dec 2006
ACM Lecturer - 1990 through 1993.

Guest Editor

Guest editor – IEEE Software, devoted to Practical Product Line Experiences, 2010, published by the IEEE Computer Society.
Guest Editor – IEEE Software, devoted to Software Product Lines, 2002, published by the IEEE Computer Society.
Guest Editor - Annals of Software Engineering, devoted to Object-Oriented Software: Foundations and Techniques, 1996. Published by J. C. Baltzer AG Science Publishers of Basel Switzerland.
Guest editor - September issue of Communications of the ACM, 1990 and 1994.

Member

Member - IEEE-Computer Society, ACM, SIGPLAN, SIGCSE, SIGSOFT, and SIGGRAPH.
Member - ACM's Strategic Planning Committee for Professional Development, 1990.