

**CURRICULUM VITAE
MACNEIL SHONLE**

The University of Texas at San Antonio
Department of Computer Science
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EDUCATION

UC San Diego (La Jolla, California) 2003 – 2009

Ph.D., Computer Science (June 2009)

Dissertation: *A Framework for the Checking and Refactoring of Crosscutting Concepts*

Advised by: William G. Griswold and Sorin Lerner

M.S., Computer Science (2006)

Clark University (Worcester, Massachusetts) 1996 – 2000

B.A., Computer Science with a minor in Mathematics (2000)

Magna Cum Laude, with Highest Departmental Honors in Computer Science

RESEARCH INTERESTS

Software engineering (particularly refactoring, software design, and programming tools), aspect-oriented programming, programming language design

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Computer Science

The University of Texas at San Antonio

August 2009 – Present

Tenure-track assistant professor for the College of Sciences.

Courses Taught:

CS 5103 Software Engineering (Graduate-level course) — Spring 2012; Spring 2010

CS 3723 Programming Languages — Fall 2011

CS 1063 Introduction to Computer Programming I — Fall 2011; Spring 2011

CS 5123 Software Testing and Quality Assurance (Graduate-level course) — Fall 2010

CS 4773 Object-Oriented Systems — Fall 2009

Associate in Teaching, Department of Computer Science & Engineering

UC San Diego (La Jolla, California)

Summer 2007

Instructor for CSE 130 Programming Languages: Principles and Paradigms

Member Technical Staff

Sun Microsystems, Inc. (Burlington, Massachusetts)

June 2000 – June 2003

Software developer for the MPPProf and Prism components of Sun's HPC ClusterTools.

JOURNAL ARTICLES (Refereed)

1. Macneil Shonle, William Griswold, and Sorin Lerner. A Framework for the Checking and Refactoring of Crosscutting Concepts. *ACM Transactions on Software Engineering and Methodology* (TOSEM). [To appear.]

2. Kevin Sullivan, William G. Griswold, Yuanyuan Song, Yuanfang Cai, Hridesh Rajan, Macneil Shonle, and Nishit Tewari. Modular Aspect-Oriented Design with XPIs. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, Volume 20, Issue 2. August 2010. 1-42.
3. William G. Griswold, Kevin Sullivan, Yuanyuan Song, Macneil Shonle, Nishit Tewari, Yuanfang Cai, and Hridesh Rajan. Modular software design with crosscutting interfaces. *Software, IEEE*, vol.23, no.1, 51-60, Jan.-Feb. 2006.

CONFERENCE PROCEEDINGS (Peer Reviewed)

1. Macneil Shonle, William G. Griswold, and Sorin Lerner. Addressing common crosscutting problems with Arcum. In *Proceedings of the 8th ACM SIGPLAN-SIGSOFT Workshop on Program Analysis for Software Tools and Engineering (PASTE '08)*. 64-69. [Acceptance rate: 50%.]
2. Macneil Shonle, William G. Griswold, and Sorin Lerner. Beyond refactoring: a framework for modular maintenance of crosscutting design idioms. In *Proceedings of the 6th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC-FSE '07)*. 175-184. [Acceptance rate: 16.7%.]
3. Kevin Sullivan, William G. Griswold, Yuanyuan Song, Yuanfang Cai, Macneil Shonle, Nishit Tewari, and Hridesh Rajan. Information hiding interfaces for aspect-oriented design. In *Proceedings of the 10th European Software Engineering Conference Held Jointly with 13th ACM SIGSOFT International Symposium on Foundations of Software Engineering (ESEC/FSE '05)*. 166-175. [Acceptance rate: 15.9%.]
4. Macneil Shonle, Karl Lieberherr, and Ankit Shah. XAspects: an extensible system for domain-specific aspect languages. In *Companion of the 18th Annual ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA '03, Domain-Driven Development session)*. 28-37. [Acceptance rate: 30%.]

SHORT PAPERS AND WORKSHOPS (Peer Reviewed)

1. Macneil Shonle, William G. Griswold, and Sorin Lerner. Using Metaphors from Natural Discussion to Improve the Design of Arcum. In *Proceedings of the 3rd ACM SIGPLAN workshop on Evaluation and usability of programming languages and tools (PLATEAU '11)*. 6 pages. [Acceptance rate: 83.3%.]
2. Mark Robinson, Jianwei Niu, and Macneil Shonle. GitBAC: Flexible access control for non-modular concerns. In *26th IEEE/ACM International Conference on Automated Software Engineering (ASE '11)*. 500-503.
3. Macneil Shonle and Timothy T. Yuen. Compose & conquer: modularity for end-users. In *Proceedings of the 32nd ACM/IEEE International Conference on Software Engineering - Volume 2 (ICSE '10, New Ideas and Emerging Results)*. 191-194. [Acceptance rate: 25%.]
4. Macneil Shonle, William G. Griswold, and Sorin Lerner. When refactoring acts like modularity: keeping options open with persistent condition checking. In *Proceedings of the 2nd Workshop on Refactoring Tools (WRT '08; October 19, 2008)*. 1-4.
5. Macneil Shonle. Modular-Like Transformations and Style Checking for Crosscutting Programming Concepts. In *Companion to the Proceedings of the 29th International Conference on Software Engineering (ICSE '07 Doctoral Symposium)*. IEEE Computer Society, 95-96. [Acceptance rate: 33%.]

6. Alexis O'Connor, Macneil Shonle, and William Griswold. Star diagram with automated refactorings for Eclipse. In Proceedings of the 2005 OOPSLA Workshop on Eclipse Technology Exchange (ETX '05). 16-20. [Winner of best student research paper award.]
7. Macneil Shonle, Jonathan Neddenriep, and William Griswold. AspectBrowser for Eclipse: a case study in plug-in retargeting. In *Proceedings of the 2004 OOPSLA Workshop on Eclipse Technology Exchange* (ETX '04). 78-82.

MISCELLANEOUS

1. Gayani Samaraweera, Macneil Shonle, and John Quarles. Programming from the Reader's Perspective: Toward an Expectations Approach. In *2011 IEEE 19th International Conference on Program Comprehension (ICPC '11)*, pages 211-212. (Poster - Peer Reviewed)
2. Sánchez, P., Yuen, T., Shonle, M., De Hoyos, T., Maddox, L., Santillán, L., and Garcia, A. (accepted, in revision). Revitalization of El Laberinto Mágico: Integrating technology and culture for the 21st century. In B. Flores and E. Clark (Eds.), *La Nueva Generación de La Clase Mágica*. (Book Chapter)
3. Macneil Charles Shonle. A Framework for the Checking and Refactoring of Crosscutting Concepts. Doctoral Thesis. University of California, San Diego. June 2009. UMI Order Number: AAI3356352. (Dissertation)

HONORS AND AWARDS

- Phi Beta Kappa
- Upsilon Pi Epsilon (Northeastern University, 2003)
- Clark Achievement Grant
- Outstanding Academic Achievement in Computer Science Award (Fall 1998)
- IBM Eclipse Innovation Grant 2005, "Fluid Architecture - Turbocharging Automated Agile-Design Refactorings with Aspect-Oriented Programming," advised by W. Griswold, \$23,500.