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Education:

Ph.D., Computer Science, University of Massachusetts Amherst
Dissertation Title: "Automating and Evaluating Assume-guarantee Reasoning"
Advisor: Professor Lori A. Clarke
Completion expected August 2006

M.S., Computer Science, University of Massachusetts Amherst, February 2001

B.S. with Highest Honors, Computer Science and Mathematics, Rutgers University, May 1998

Research Experience:

Research Assistant, June 1998 – present
Department of Computer Science, University of Massachusetts
Under the direction of Professor Lori A. Clarke

Summer Student Research Program Participant, Summer 2002 and 2003
Research Institute for Advanced Computer Science Research, NASA Ames Research Center
Under the direction of Dr. Dimitra Giannakopoulou

Teaching Experience:

Teaching Assistant, Fall semester 2000
Advanced Software Engineering: Analysis (Computer Science 521/621)
Department of Computer Science, University of Massachusetts
Under the direction of Professor Lori A. Clarke

Publications:

Journal Publications:

Matthew B. Dwyer, Lori A. Clarke, Jamieson M. Cobleigh, and Gleb Naumovich. Flow analysis for verifying properties of concurrent software systems. *ACM Transactions on Software Engineering and Methodology*, 13(4):359–430, October 2004

Jamieson M. Cobleigh, Lori A. Clarke, and Leon J. Osterweil. FLAVERS: A finite state verification technique for software systems. *IBM Systems Journal*, 41(1):140–165, 2002

S. K. Smith, J. Cobleigh, and V. Svetnik. Evaluation of a ^{1}H-^{13}C NMR spectral library. *Journal of Chemical Information and Computer Sciences*, 41(6):1463–1469, November 2001

Conference Publications:

Jamieson M. Cobleigh, George S. Avrunin, and Lori A. Clarke. Breaking up is hard to do: An investigation of decomposition for assume-guarantee reasoning. In *Proceedings of the 2006 International Symposium on Software Testing and Analysis*, July 2006

Dimitra Giannakopoulou, Corina S. Păsăreanu, and Jamieson M. Cobleigh. Assume-guarantee verification of source code with design-level assumptions. In *Proceedings of the* 26^{th} *International Conference on Software Engineering*, pages 211–220, May 2004

Jamieson M. Cobleigh, Dimitra Giannakopoulou, and Corina S. Păsăreanu. Learning assumptions for compositional verification. In Hubert Garavel and John Hatcliff, editors, *Proceedings of the Ninth International Conference on Tools and Algorithms for the Construction and Analysis of Systems*, volume 2619 of *Lecture Notes in Computer Science*, pages 331–346, April 2003

Jamieson M. Cobleigh, Leon J. Osterweil, Alexander Wise, and Barbara Staudt Lerner. Containment units: A hierarchically composable architecture for adaptive systems. In *Proceedings of the Tenth ACM SIGSOFT Symposium on the Foundations of Software Engineering*, pages 159–165, November 2002

Jamieson M. Cobleigh, Lori A. Clarke, and Leon J. Osterweil. The right algorithm at the right time: Comparing data flow analysis algorithms for finite state verification. In *Proceedings of the* 23^{rd} *International Conference on Software Engineering*, pages 37–46, May 2001

Jamieson M. Cobleigh, Lori A. Clarke, and Leon J. Osterweil. Verifying properties of process definitions. In *Proceedings of the 2000 International Symposium on Software Testing and Analysis*, pages 96–101, August 2000

Workshop Publications:

Leon J. Osterweil, Alexander Wise, Jamieson M. Cobleigh, Lori A. Clarke, and Barbara Staudt Lerner. Architecting dynamic systems using containment units. In *Proceedings of the Working Conference on Complex and Dynamic Systems Architecture*, December 2001

Gleb Naumovich, Lori A. Clarke, and Jamieson M. Cobleigh. Using partial order techniques to improve performance of data flow analysis based verification. In *Proceedings of the ACM SIGPLAN-SIGSOFT Workshop on Program Analysis for Software Tools and Engineering*, pages 57–65, September 1999

Technical Reports:

Barbara Staudt Lerner, Jamieson M. Cobleigh, Leon J. Osterweil, and Alexander Wise. Using Little-JIL to define containment units. Technical Report UM-CS-2002-033, University of Massachusetts, Department of Computer Science, 2002

Invited Talks:

"FLAVERS: A Finite State Verification Technique for Software Systems", Williams College Department of Computer Science Colloquium, December 2005.

Service:

Reviewing:

15^{th} International Conference on Compiler Construction, 2005

ACM Transactions on Software Engineering and Methodology, 2005

17^{th} International Conference on Computer Aided Verification, 2005

IEEE Transactions on Software Engineering, 2003

18^{th} ACM Symposium on Operating Systems Principles, 2001

Departmental:

Graduate Representative, Spring 2003 – Fall 2003, Department of Computer Science, University of Massachusetts

Treasurer, Spring 2001 – Fall 2002, Department of Computer Science, University of Massachusetts

Union Steward, Spring and Fall 1999, Graduate Employee Organization

Other:

Board of Directors, Valley Light Opera, February 2004 – present

Evaluator, Future Problem Solving Program, September 1993 – present at the state level; was invited three times to evaluate at the International Competition

Awards and Honors:

Wellfleet Fellowship Recipient, Department of Computer Science, University of Massachusetts

Eagle Scout with Bronze Palm, Boy Scouts of America

References:

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