Andrew Hilton

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Education

2004-2010 **PhD in Computer Science**
University of Pennsylvania, Philadelphia, PA
Advisor: Amir Roth
Dissertation Title: "Energy Efficient Load Latency Tolerance: Single-thread Performance For the Multi-Core Era"

2004 **Masters of Science in Computer Science**
Georgia Institute of Technology, Atlanta, GA
GPA: 4.0
Advisor: Olin Shivers

2003 **Bachelors of Science in Computer Science**
Georgia Institute of Technology, Atlanta, GA
GPA: 4.0

Positions Held

2011- **Adjunct Professor**
Department of Computer Science, Duke University, Durham, NC

2010- **Advisory Engineer**
IBM, Research Triangle Park, NC

2004-2010 **Graduate Research Assistant**
Computer and Information Science Department, University of Pennsylvania, Philadelphia, PA

2009 **Adjunct Professor**
Ursinus College, Collegeville, PA

2007 **Intern**
Intel Corporation, Hudson, MA

2003-2004 **Graduate Research Assistant**
College of Computing, Georgia Institute of Technology, Atlanta, GA

2003 **Intern**
Software Quality Management Resources, Alpharetta, GA

2000-2003 **Teaching Assistant**
College of Computing, Georgia Institute of Technology, Atlanta, GA

2000 **Intern**
ARINC, Inc. Warner Robins, GA

Honors and Awards

2012	Publication nominated for Best Paper Award: Flexible Register Management using Reference Counting
2010	Publication selected for IEEE MICRO Top Picks: iCFP: Tolerating All-Level Cache Misses in In-Order Processors
2008-2009	Graduate Fellow for Teaching Excellence
2003	Outstanding Undergraduate

Teaching Experience

Spring 2012	CPS 104 (Computer Organization and Design) at Duke University
Fall 2011	CPS 296.2 (Compiler Construction) at Duke University **Student Course Evaluations in Top 5% University-wide**
Spring 2009	CS 173 (Introduction to Computer Science) at Ursinus College
Spring 2009	CS 274 (Computer Architecture and Organization) at Ursinus College
Spring 2008	CSE 399 (Special Topics: C++) at University of Pennsylvania
Spring 2007	CSE 399 (Special Topics: C++) at University of Pennsylvania
Spring 2006	TA for for Amir Roth's CSE371
Fall 2005	TA for Milo Martin's CIS501
2000-2004	TA for CS 1322 (Second intro to programming class, in Java) at Georgia Tech.

Refereed Conference Publications

Flexible Register Management using Reference Counting
Steven Battle, Andrew Hilton, Mark Hempstead, and Amir Roth.
18th International Symposium on High-Performance Computer Architecture (HPCA), Feb. 2012

BOLT: Energy-Efficient Out-of-Order Latency-Tolerant Execution
Andrew Hilton and Amir Roth.
16th International Symposium on High-Performance Computer Architecture (HPCA), Jan., 2010.

CPROB: Checkpoint Processing with Opportunistic Minimal Recovery
Andrew Hilton, Neeraj Eswaran, and Amir Roth.
18th International Conference on Parallel Architectures and Compilation Techniques (PACT), Sep., 2009.

Decoupled Store Completion/Silent Deterministic Replay: Enabling Scalable Data Memory for CPR/CFP Processors
Andrew Hilton and Amir Roth.
36th International Symposium on Computer Architecture (ISCA), Jun., 2009.

iCFP: Tolerating All-Level Cache Misses in In-Order Processors
Andrew Hilton, Santosh Nagarakatte and Amir Roth.
15th International Symposium on High-Performance Computer Architecture (HPCA), Feb., 2009.

Ginger: Control Independence Using Tag Rewriting
Andrew Hilton and Amir Roth.
34th International Symposium on Computer Architecture (ISCA), Jun. 9-13, 2007.

XChange: Coupling Parallel Applications in a dynamic environment
Hasan Abbasi, Matthew Wolf, Karsten Schwan, Greg Eisenhauer, and Andrew Hilton
6th International Conference on Cluster Computing, Sep. 20-23, 2004.

Refereed Workshop Publications

FIESTA: A Sample-Balanced Multi-Program Workload Methodology
Andrew Hilton, Neeraj Eswaran, and Amir Roth.
5th Workshop on Modeling, Benchmarking, and Simulation, Jun., 2009.