

Lisa R. Hsu

Contact Information:

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University of Michigan
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Education:

1/05 – Present

Ph.D. Candidate, Computer Science

Concentration: Architecture

University of Michigan
Ann Arbor, Michigan
Expected Defense 09/09

9/02 – 12/04

M.S., Computer Science

Concentration: Architecture

University of Michigan
Ann Arbor, Michigan

9/98 – 6/02

B.S.E., Electrical Engineering, *cum laude*

Concentration: Computer Systems and Software

Princeton University
Princeton, New Jersey

Professional Experience:

9/05 – Present

Doctoral Research: Cache Resource Allocation in Large Scale Chip Multiprocessors

University of Michigan
Ann Arbor, Michigan
Advisors: Steve Reinhardt and Trevor Mudge

Summer 2005

Intel Research Intern

System Technology Lab
Hillsboro, Oregon
Supervisor: Donald Newell

Summer 2002

Bell Labs Summer Intern

Murray Hill, New Jersey
Supervisor: Oskar Mencer

Summer 2001

Qualcomm Summer Intern

Firmware Group
San Diego, CA
Supervisor: Jeff Huang

Spring 2001 **Undergraduate Research**
Princeton University
Princeton, NJ
Advisor: Margaret Martonosi

Summer 2000 **Lucent/Agere Systems Summer Intern**
Microelectronics Group
Reading, Pennsylvania
Supervisor: John Gammel

Awards and Honors:

2007 **Intel Foundation PhD Fellowship Recipient**
Two-year Award

2002 **Lucent Foundation Graduate Fellowship Recipient**
Four-year Award

Teaching:

Spring 2007 **EECS 370 Graduate Student Instructor (TA equivalent)**
Introduction to Computer Organization
University of Michigan

***Student Evaluation Comments included:*

- "Best GSI Ever"

- "This was the first EECS discussion [section] I've had that was actually useful"

Spring 2001 **ELE 302 Lab Teaching Assistant**
System Design and Analysis
Princeton University

Fall 2001 **COS 109/111 Lab Teaching Assistant**
Computers in Our World/Computers and Computing
Non-majors Introductory Course
Princeton University

Invited Talks:

1/09 **University of Washington**
Computer Science Dept.
Seattle, WA

1/09 **AMD Labs**
Redmond, WA

5/08 **Intel**
Group: VSSAD
Hudson, Massachusetts

Publications:***Refereed Conference Papers***

1. R. Iyer, L. Zhao, F. Guo, S. Makineni, D. Newell, Y. Solihin, R. Illikal, **L. Hsu**, S. Reinhardt. "QoS Policy and Architecture for Cache/Memory in CMP Platforms." *SIGMETRICS* 2007, June 2007.
2. **L. R. Hsu**, S. K. Reinhardt, R. Iyer, S. Makineni. "Communist, Utilitarian, and Capitalist Cache Policies on CMPs: Caches as a Shared Resource." Proc. 15th Int'l Conf. on Parallel Architectures and Compilation Techniques (*PACT*), Sept. 2006.
3. N. L. Binkert, **L. R. Hsu**, A. G. Saidi, R. G. Dreslinski, A. L. Schultz, and S. K. Reinhardt. "Performance Analysis of System Overheads in TCP/IP Workloads." Proc. 14th Int'l Conf. on Parallel Architectures and Compilation Techniques (*PACT*), pp. 218-228, Sept. 2005.

Magazine Publications

1. N. L. Binkert, R. G. Dreslinski, **L. R. Hsu**, K. T. Lim, A. G. Saidi, and S. K. Reinhardt. "The M5 Simulator: Modeling Networked Systems." *IEEE Micro*, vol. 26, no. 4, pp. 52-60, Jul/Aug, 2006.

Workshop Papers

1. **L. R. Hsu**, R. Iyer, S. Makineni, S. Reinhardt, D. Newell. "Exploring the Cache Design Space for Large Scale CMPs". Proc. First Annual Workshop on Design, Architecture, and Simulation of Chip Multiprocessors (*dasCMP*), Nov. 2005.
2. A.G. Saidi, N. L. Binkert, **L. R. Hsu**, and S. K. Reinhardt. "Performance Validation of Network-Intensive Workloads on a Full-System Simulator." Workshop on Interaction between Operating System and Computer Architecture (*IOSCA*), Oct. 2005.
3. **L. R. Hsu**, A. G. Saidi, N. L. Binkert, and S. K. Reinhardt. "Sampling and Stability in TCP/IP Workloads." Proc. First Annual Workshop on Modeling, Benchmarking, and Simulation (*MoBS*), pp. 68-77, June 2005.
4. N. Binkert, **L. Hsu**, A. Saidi, R. Dreslinski, A. Schultz, S. Reinhardt "Analyzing Overheads in Network-Intensive Workloads." Eighth Workshop on Computer Architecture Evaluation using Commercial Workloads (*CAECW*), February 2005.
5. N. Binkert, R. Dreslinski, E. Hallnor, **L. Hsu**, S. Raasch, A. Schultz, S. Reinhardt. "The Performance Potential of an Integrated Network Interface" 2004 Workshop on Advanced Networking and Communications Hardware (*ANCHOR-04*), June 2004.

Technical Reports

1. N. L. Binkert, **L. R. Hsu**, A. G. Saidi, R. G. Dreslinski, A. L. Schultz, and S. K. Reinhardt. "Analyzing NIC Overheads in Network Intensive Workloads." University of Michigan Technical Report CSE-TR-505-04, December 2004.

Refereed Posters

1. **L. R. Hsu**, T. N. Mudge, S. K. Reinhardt. "LRU: If it Ain't Broke, Don't Fix It". 2009 Architectural Support for Programming Languages and Operating Systems (*ASPLOS*), March 2009.

Tutorials

Tutorial Presenter for the *M5 Simulator* at

- ISCA 2005
- ISCA 2006
- ASPLOS 2008

Application Notes

1. **L. Hsu**, E. Tappert "An Empirical Investigation of Control Strategies for an Adaptive Balance Codec in a High-Speed Modem Call Environment" *Agere Systems Application Note*, released March 2001.

Professional Memberships:

IEEE Student Member
ACM and SIGARCH Member

Service:

2008	CRA-W Computer Architecture Summer School Student Panelist
2007	CSE Building Dedication Ceremony Student Speaker
2007	University of Michigan College of Engineering Recruiting Representative
2007	Science Fair Reviewer at Ann Arbor Open School (K-8)
2004 – 2007	CSEG Graduate Society Officer
2004, 2006	SWE Graduate School Session Panelist
2003 – 2007	Women in Engineering Peer Advisor for CSE students
2002 – 2007	Princeton Alumni Schools Committee

Reviewer for

- HPCA 2007
- IEEE TDPS 2006
- MICRO 2004
- ISCA 2003