

# Haris Volos

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RESEARCH INTERESTS      Operating systems, concurrent software systems, and the interaction of computer architecture and systems.

EDUCATION      ◇ **University of Wisconsin-Madison, August 2005 – present**  
Ph.D. Student in Computer Science with specialization in Operating Systems  
Advisor: Michael M. Swift  
M.Sc. Degree in Computer Science, May 2007 (GPA: 3.94/4)

◇ **National Technical University of Athens, Greece, September 2000 – June 2005**  
Diploma in Electrical and Computer Engineering  
Major in Computer Science  
GPA: 9.70/10, Honors

WORK EXPERIENCE      ◇ **Research Assistant**, University of Wisconsin-Madison, Computer Sciences Department (June 2006 – present)  
Projects: Virtualization of Hardware Transactional Memory (TM) systems; I/O in memory transactions; Interaction of TM with legacy code

◇ **Graduate Technical Intern**, Intel Corporation, Programming Systems Lab (PSL), Microprocessor Technology Lab (MTL) (May 2008 – August 2008)  
Supervisor: Ali-Reza Adl-Tabatabai  
Project: Nested Parallelism for Transactional Memory

◇ **Teaching Assistant**, University of Wisconsin-Madison, Computer Sciences Department (August 2005 – May 2006)

PUBLICATIONS      ◇ **Journals**

**Micro Jan/Feb-08** Jayaram Bobba, Kevin E. Moore, Haris Volos, Luke Yen, Mark D. Hill, Michael M. Swift, and David A. Wood, *Performance Pathologies in Hardware Transactional Memory*, IEEE Micro Special Issue: Micro's Top Picks from Microarchitecture Conferences, January-February 2008. (Shorter, award version of ISCA2007 Paper)

◇ **Refereed Conferences**

**ECOOP-09** Haris Volos, Adam Welc, Ali-Reza Adl-Tabatabai, Tatiana Shpeisman, Xinmin Tian, and Ravi Narayanaswamy, *NePalTM: Design and Implementation of Nested Parallelism for Transactional Memory Systems*, Proceedings of the 23rd European Conference on Object-Oriented Programming, July 2009.

**EuroSys-09** Haris Volos, Andres Jaan Tack, Neelam Goyal, Michael M. Swift, and Adam Welc, *xCalls: Safe I/O in Memory Transactions*, Proceedings of the 4th European Conference on Computer Systems, April, 2009.

**PPoPP-09** Haris Volos, Adam Welc, Ali-Reza Adl-Tabatabai, Tatiana Shpeisman, Xinmin Tian, and Ravi Narayanaswamy, *NePalTM: Design and Implementation of Nested*

*Parallelism for Transactional Memory Systems*, Proceedings of the 4th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming, Short poster paper, February 2009.

**ISCA-07** Jayaram Bobba, Kevin E. Moore, Haris Volos, Luke Yen, Mark D. Hill, Michael M. Swift, and David A. Wood, *Performance Pathologies in Hardware Transactional Memory*, Proceedings of the 34th International Symposium on Computer Architecture, June 2007.

**HPCA-07** Luke Yen, Jayaram Bobba, Michael R. Marty, Kevin E. Moore, Haris Volos, Mark D. Hill, Michael M. Swift and David A. Wood, *LogTM-SE: Decoupling Hardware Transactional Memory from Caches*, Proceedings of the 13th International Symposium on High Performance Computer Architecture, February 2007.

◇ *Refereed Workshops*

**TRANSACT-08** Haris Volos, Neelam Goyal, and Michael M. Swift *Pathological Interaction of Locks with Transactional Memory*, 3rd ACM SIGPLAN Workshop on Transactional Computing, February 2008

**TRANSACT-08** Michael M. Swift, Haris Volos, Neelam Goyal, Luke Yen, Mark D. Hill and David A. Wood *OS Support for Virtualizing Hardware Transactional Memory*, 3rd ACM SIGPLAN Workshop on Transactional Computing, February 2008.

◇ *Technical Reports*

**CS-TR** Mark D. Hill, Derek Hower, Keven E. Moore, Michael M. Swift, Haris Volos and David A. Wood, *A Case for Deconstructing Hardware Transactional Memory Systems*, University of Wisconsin Computer Sciences Technical Report CS-TR-2007-1594, June 2007.

TECHNICAL  
SKILLS

- ◇ **Languages:** C/C++, Java, Python, SPARC and x86 assembly
- ◇ **Platforms:** Unix, MS-Windows
- ◇ **Kernel experience:** OpenSolaris
- ◇ **Tools:** Virtutech Simics, CVS/SVN, Simple-SUIF

MAJOR  
AWARDS &  
HONORS

- ◇ Summer Research Fellowship by the Computer Sciences Department, UW - Madison, 2006
- ◇ Awarded by the Chancellor the Medal of the National Technical University of Athens for ranking 1st among the students of the School of Electrical and Computer Engineering, NTUA, 2005
- ◇ *Paris Kanellakis* award for ranking 1st among the students of the School of Electrical and Computer Engineering in Computer Science Division, NTUA, 2002-2004