

Joseph A. Roback

Curriculum Vitae

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Education

Ph.D. Computer Science, The University of Arizona, Tucson, Arizona, June 2010.

Committee: Gregory R. Andrews (chair), David K. Lowenthal, Saumya K. Debray, and John H. Hartman.

M.S. Computer Science, The University of Arizona, Tucson, Arizona, December 2006.

B.S. Computer Science, Wilkes University, Wilkes-Barre, Pennsylvania, May 2002.

Minor: Physics

Fields of Interest

Concurrent Programming, Parallel Computing

Programming Languages, Compilers

Operating Systems, Systems Programming, Device Drivers

Research

Publications

Roback, Joseph A. and Andrews, Gregory R. Gossamer: A Lightweight Programming Framework for Multicore Machines. In *Proceedings of the 2nd USENIX Workshop on Hot Topics in Parallelism (HotPar'10)*, Berkeley, CA, June 2010.

Roback, Joseph A. and Andrews, Gregory R. Gossamer: A Lightweight Approach to Using Multicore Machines. In *Proceedings of the 2010 International Conference on Parallel Processing (ICPP'10)*, San Diego, CA, Sept. 2010.

Software

Gossamer, a lightweight programming framework and run-time for C. Gossamer supports iterative and recursive parallelism, pipelined computations, domain decomposition, and MapReduce computations.

Academic Experience

The University of Arizona, Department of Computer Science

Research Assistant, Gregory R. Andrews, Spring 2006–Summer 2010.

The University of Arizona, School of Information Resources and Library Science

Research Assistant, Anita S. Coleman, Spring 2005–Fall 2006.

Professional Activities

Member, Association for Computing Machinery (ACM), 2006–Present.

Work Experience

SolidFire, *Senior Software Engineer*, 09/2011–Present.

SSD Storage Technologies.

Ulysses Owen, *Director of Software Engineering*, (720) 340-2108

Hewlett-Packard, *HP-UX Kernel Developer*, 09/2010–11/2011.

HP-UX 11i. Kernel developer, Itanium/PA-RISC/x86.

Jeff Stevenson, *HP-UX Kernel Program Manager*, (970) 898-2107

The Iconfactory, *Apple OS X Dashboard Widget Developer*, 03/2006–06/2007.

Dine-O-Matic. Developed a promotional Mac OS X dashboard widget.

Gedeon P. Maheux, *co-founder*, (336) 299-5251 x200

Choicepoint, *Unix/Linux C/C++/Java Developer*, 06/2004–12/2004.

Developed high-transaction multithreaded XML based search engine for U.S. Customs & Border Patrol.

Ira Kaufman, *Manager - Middleware Systems*, ira.kaufman@gmail.com

GUARD Insurance Group, *Windows/Web/Database Delphi/MSSQL Developer*, 11/2001–04/2004.

Project lead in rewriting GUARD's three major billing and accounting systems.

Anthony Thornton, *AVP of Software Development*, (570) 825-9900 x1546

Wilkes University, *Unix System Administrator and Purchasing Consultant*, 12/1998–05/2002.

UNIX Administrator for Engineering and Physics department.

Roger Maxwell, *Professor Emeritus, Department Chair (Retired)*, (800) 945-5378

Computer Knowledge

Programming

Languages: Awk, bash, C/C++, Objective-C, CSS, GNU autotools, HTML, Java, Javascript, ksh, L^AT_EX, Make, Pascal, Perl, PHP, Python, Ruby, sed, SQL (MySQL, MSSQL7, Oracle), XML, XSLT

APIs: BSD sockets, Cocoa, GLIB/GDK/GTK+, KDE/Qt, POSIX Threads, Sun RPC

Environments and Tools: KDevelop/Qt Designer, Eclipse/IBM Websphere, Xcode/Interface Builder, emacs, gdb, gprof, oprofile, valgrind, vi

Version Control Systems: ClearCase, CVS, Subversion, Git

Open Source Software

SSH Tunnel Framework. A Cocoa framework for creating SSH tunnels.

Available online at <http://github.com/joeroback/SSHTunnel>

Yet Another Network Traffic Daemon. A small, compact network traffic monitor for OpenWrt routers.

Available online at <http://github.com/joeroback/yantd>

OpenWRT Linux Router Project. Contribute Darwin(OSX)/BSD build system patches.

Patches available in OpenWRT mailing list archives.

References

Jeff Stevenson
HP-UX Kernel Program Manager, *UNIX Systems Lab*
Hewlett-Packard
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Dr. Saumya K. Debray
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