CURRICULUM VITAE

Barton Christopher Massey October 26, 2005

Education

Ph.D. 1999 Computer Science, University of Oregon
M.S. 1992 Computer Science, University of Oregon
B.A. 1987 Physics, Reed College

Selected Employment

Assistant Professor, Department of Computer Science, Portland State University, Portland OR, 1998–present.

System Administrator, Computational Intelligence Research Lab, University of Oregon, Eugene OR, 1996–1998.

Research Assistant, University of Oregon, Eugene, OR, 1990–1998.

Software Engineer III, Tektronix, Beaverton OR, 1988–1990.

Assistant Director of Academic Computing, Reed College, Portland OR, 1985–1987.

Software Engineer II, Tektronix, Wilsonville OR, 1988.

Instructor, Computer Science Department, Portland State University, Portland OR, 1988.

Master's Thesis

Sequentialization of Parallel Logic Programs with Mode Analysis, August 1992.
Advisor: Evan Tick, Computer Science Department, University of Oregon.

Dissertation

Directions In Planning: Understanding The Flow Of Time In Planning, June 1999.
Advisor: Matt Ginsberg, Computational Intelligence Research Laboratory, University of Oregon.

Refereed Publications or Other Creative Achievements

Journal Articles

Bart Massey. "Longitudinal analysis of long-timescale open source repository data". *SIGSOFT Software Engineering Notes*, 30(4), 2005.
URL `http://www.cs.pdx.edu/~bart/papers/promise-data.pdf`.

Sergio Antoy, Pascual Julián Iranzo and Bart Massey. "Improving the efficiency of non-deterministic computations". *Electronic Notes On Theoretical Computer Science*, 64, September 2002. URL `http://www.cs.pdx.edu/~bart/papers/entcs-nondet.pdf`.

A Common Intermediate Language and its Use in Partitioning Concurrent Declarative Programs, with Z. M. Ariola, M. Sami, and E. Tick. *New Generation Computing* 14(3):281, Springer-Verlag 1996.

Experience with the Super Monaco Optimizing Compiler, with E. Tick and J. S. Larson. *Journal of Logic Programming* 29(1–3):141–169, Elsevier 1996.

Conference Papers

Sangsuree Vasupongayya, Su-Hui Chiang and Bart Massey. *Search–based Job Scheduling for Parallel Computer Workloads*. In *Proc. 2005 IEEE Annual International Conference on Cluster Computing (Cluster 2005)*, Boston, MA, September 2005. To appear.
URL `http://www.cs.pdx.edu/~suhui/publications/cluster2005.pdf`.

Bart Massey. *Putative Software Engineering and the X Window System*. In *Proc. 2005 Desktop Developers' Conference, Ottawa Linux Symposium*, Ottawa, Canada, July 2005.
URL `http://www.cs.pdx.edu/~bart/papers/ddc-se.pdf`.

James R. Binkley and Bart Massey. *Ourmon and Network Monitoring Performance*. In *Proc. 2005 Usenix Annual Technical Conference, Freenix Track*, Anaheim, CA, April 2005. URL `http://www.cs.pdx.edu/~bart/papers/freenix-ourmon.pdf`.

Bart Massey, Mick Thomure, Raya Budrevich and Scott Long. *Learning Spam: Simple Techniques For Freely-Available Software*. In *Proc. 2003 Usenix Annual Technical Conference, Freenix Track*, San Antonio, TX, June 2003.
URL `http://www.cs.pdx.edu/~bart/papers/spam.pdf`.

James Perkins, Andrew Greenberg, Jamey Sharp, David Cassard and Bart Massey. *Free Software and High-Power Rocketry: The Portland State Aerospace Society*. In *Proc. 2003 Usenix Annual Technical Conference, Freenix Track*, San Antonio, TX, June 2003.
URL `http://psas.pdx.edu/psas/usenix_2003/psas.pdf`.

Bart Massey and Robert Bauer. *X Meets Z: Verifying Correctness In The Presence Of POSIX Threads*. In *Proc. 2002 Usenix Annual Technical Conference, Freenix Track*, Monterey, CA, June 2002.
URL `http://www.cs.pdx.edu/~bart/papers/usenix-zxcb.pdf`.

Jamey Sharp and Bart Massey. *XCL: An Xlib Compatibility Layer For XCB*. In *Proc. 2002 Usenix Annual Technical Conference, Freenix Track*, Monterey, CA, June 2002.
URL `http://www.cs.pdx.edu/~bart/papers/usenix-xcl.pdf`.

Bart Massey and Jamey Sharp. *XCB: An X Protocol C Binding*. In *Proc. 2001 XFree86 Technical Conference*, Oakland, CA, November 2001. USENIX.
URL `http://www.cs.pdx.edu/~bart/papers/xfree86-xcb.pdf`.

Bart Massey. *Experience With A Process For Competitive Programming*. In *Proc. 2001 Pacific Northwest Software Quality Conference*, Portland, OR, October 2001.
URL `http://www.cs.pdx.edu/~bart/papers/pnsqc-acm.pdf`.

Sergio Antoy, Michael Hanus, Bart Massey and Frank Steiner. *An Implementation of Narrowing Strategies*. In *Proc. 3rd International ACM SIGPLAN Conference on Principles and Practice of Declarative Programming*, Florence, Italy, September 2001.
URL `http://www.cs.pdx.edu/\nobreakspace{}bart/papers/ppdp-nmind.pdf`.

Sergio Antoy, Pascual Julián Iranzo and Bart Massey. *Improving the Efficiency of Non-Deterministic Computations*. In *Proc. 10th International Workshop on Functional and Logic Programming*, Kiel, Germany, September 2001. Published in revised and extended form as Antoy et al., *Improving the Efficiency of Non-Deterministic Computations* cit.. URL `http://www.cs.pdx.edu/~bart/papers/wflp-nondet.pdf`.

Bart Massey and Keith Packard. *Nickle: Language Principles and Pragmatics*. In *Proc. 2001 Usenix Annual Technical Conference, Freenix Track*, Boston, MA, June 2001.
URL `http://www.nickle.org/usenix-nickle.pdf`.

Super Monaco: Its Portable and Efficient Parallel Runtime System, with J. S. Larson and E. Tick. In *Proceedings of the International EURO-PAR Conference — 1995*, Stockholm, Sweden 1995. Published as *Lecture Notes in Computer Science* (966):527, Springer-Verlag 1995.

Modes of Comprehension: Mode Analysis of Arrays and Array Comprehensions, with E. Tick. In *Proceedings of the 7th International Symposium on Programming Languages: Implementations, Logics, and Programs (PLILP '95)*, Utrecht, The Netherlands, Springer-Verlag 1995.

Optimizing Clause Matching Automata in Committed-Choice Languages, with E. Tick. In *Proceedings of the First International Symposium on Parallel Symbolic Computation (PaSCo '94)*, Linz, Austria, Springer-Verlag 1994.

Demand-Driven Dataflow for Concurrent Committed-Choice Code, with E. Tick. In *Proceedings of the IFIP WG 10.3 Working Conference on Parallel Architectures and Compilation Techniques (PACT '94)*, Montréal, Québec, North-Holland 1994. Reprinted in *IFIP Transactions A, Computer Science Technology* (A-50):215–224.

The Diadora Principle: Efficient Execution of Fine-Grain Concurrent Languages, with E. Tick. In *Proceedings of the 26th Annual Hawaii International Conference on Systems Sciences (HICCS '93)*, Wailea, HA, IEEE Computer Society Press 1993.

Sequentialization of Parallel Logic Programs with Mode Analysis, with E. Tick. In *Proceedings of the 4th International Conference on Logic Programming and Automated Reasoning (LPAR '93)*, St. Petersburg, Russia 1993.

Workshop Papers

Bart Massey. *Longitudinal Analysis of Long–Timescale Open Source Repository Data.* In *Proc. 27th International Conference on Software Engineering (ICSE) Workshop on Predictor Models in Software Engineering (PROMISE 2005)*, St. Louis, MO, May 2005. URL `http://www.cs.pdx.edu/~bart/papers/promise-data.pdf`.

Fully Demand-Driven Execution of Committed-Choice Programs. *Workshop on Parallel Logic Programming and its Programming Environments*, Eugene, Oregon 1994. Proceedings published as University of Oregon Technical Report CIS-TR–94-04.

Compilation of Concurrent Declarative Languages, with Z. M. Ariola, M. Sami, and E. Tick. *Workshop on Integration of Declarative Languages*, Santa Margherita Ligure, Italy 1994. Published as Max Planck Institut Fur Informatik Technical Report MPI I 1994 issue 224.

Concurrent Logic Programs *a la Mode*, by E. Tick, B. C. Massey, F. Rakoczi, and P. Tulayathun. In *Proceedings of the Workshop on Practical Implementations and Systems Experience in Logic Programming*, Budapest, Hungary 1993.

Other

Ken Tegetmeyer M.D., Bart Massey Ph.D. and Brahm Goldstein M.D. "Diagnosing shock via artificial intelligence: Applying machine learning techniques to medicine". *Critical Care Medicine*, 32(2), February 2004. Editorial.

Charles B. McVey, David P. Clements, Barton C. Massey and Andrew J. Parkes. *Worldwide Aeronautical Route Planner.* In *Proc. 1999 National Conference on Artificial Intelligence*, Orlando FL, July 1999. Paper for Intelligent Systems Demonstration. URL `http://www.cs.pdx.edu/~bart/papers/aaai99-warp.pdf`.

Non-Refereed Publications or Other Creative Achievements

Workshop Papers

Bart Massey. *Why OSS Folks Think SE Folks Are Clue-Impaired.* In *Proc. Workshop on Open-Source Software Engineering, 2003 International Conference on Software Engineering*, Portland, OR, May 2003.
URL `http://www.cs.pdx.edu/~bart/papers/icse-osse.pdf`.

Bart Massey. *Where Do Open Source Requirements Come From (And What Should We Do About It)?* In *Proc. 2nd Workshop On Open-Source Software Engineering*, Orlando, FL, May 2002. URL `http://www.cs.pdx.edu/~bart/papers/os-req.pdf`.

Articles

Java Development for the Rest of Us: Java Development in Odd Environments. *Power Builder & Java Journal Online*, March 1997. http://www.pbmag.com.

Java AWT Images: Use and Uses. *Power Builder & Java Journal Online*, January 1997. http://www.pbmag.com.

Professional Invited Talks

Introduction to Open Source: Business, Software, and Community, Portland InnoTech Conference, March 2004.

A Nickle Buys More Than It Used To: The Evolution of Nickle 1985-2004, PSU Student ACM Chapter, February 2004.

Open Source in Oregon Higher Ed, Open Source Catalyst Group event, O'Reilly Open Source Conference, June 2003.

Yacht For One Or Two, May 2001, Lewis and Clark College, Portland OR.

Games Computers Play, April 2000, Lewis and Clark College, Portland OR.

Other

Classroom Teaching and Technology Engineering: A Study In Wearable Computing, PSU Scholarship of Teaching and Resource Team Annual Report, May 2003.

Interview: Oregon State Representative Phil Barnhart, re HB 2892 (Open Source Initiative), on behalf of IEEE Software Magazine, March 2003.

A 3–5 Year Computing Technology Forecast For The Academy, on behalf of the Technology Subcommittee of the Portland State University Advisory Committee on Academic Information Technologies. In Portland State University Technology Plan III, May 2001.

Presentations at Professional Meetings

Open Source Strategies (panel moderator), First Annual Government Open Source Conference (GOSCON 2005), October 2005.

Nickle's Polite Type System, IBM Workshop on Formal Methods, September 2004.

Matchbox: A Window System Not For The Desktop, Usenix Annual Technical Conference (Freenix Track), June 2003.

Information Sharing Policy, Oregon RAINS NIST Site Visit, March 2003.

Prototyping With Nickle: An Algorithm Sketchpad, Software Engineering Research Center Fall Showcase, Pittsburgh PA, October 2001.

Worldwide Aeronautical Route Planner (joint presentation with David P. Clements), Intelligent Systems Demonstration, American Association for Artificial Intelligence, Orlando FL, July 1999.

Honors, Grants and Fellowships

Google ($350,000), grant to support Oregon open source university research initiatives, in partnership with Oregon State University and the OSU Open Source Laboratory, 2005.

Identified as a Pioneer (1 of 10) for work in open source by Oregon Business magazine, as part of their profile of 50 Oregon Leaders, 2005.

Google ($40,000), Mentoring Organization Lead for their *Summer of Code* student open source development program, 2005. Eight students. PSU was the only US University to be selected as a mentoring organization.

Northwest Academic Computing Consortium ($10,000), for equipment for *Applications of Open Software-Defined Radio*, 2005.

IEEE Aerospace and Electronic Systems Society ($1,000), donation for rocket launch logistics, 2005.

IBM Distinguished Faculty Fellowship ($21,000, 11 awarded world-wide), *A Power Platform for Amateur Rocket Avionics*, 2005.

NASA Phase I SBIR in support of the Portland State Aerospace Society ($68,000), *Magic Bullet: Real-time Anytime Treatment Learning for Adaptive Intelligent Vehicle Health Management* with Tim Menzies, 2005.

Computing Research Experiences for Women (CREW) grant to students Raya Budrevich and Judy Fischbach ($2000), with Pavel Sumazin, Computing Research Association (CRA), 2003-2004.

Portland State University Scholarship of Teaching and Resource Team Grant ($800). *An Inexpensive Wearable Computer For Classroom Teaching*, 2002–2003.

Best Paper. Freenix Track, Usenix 2001 Annual Technical Conference.

Intel Grant ($75,000). *Upgrade of the Intel Microprocessor System Design Lab and Creation of a Linux Lab at Portland State University*, with Doug Hall, Xiaoyu Song, and Joseph Albert, 2000–2001.

NASA Oregon Space Grant ($9,900). *Student Design of a Modular Sounding Rocket*, with James McNames and Herman Migliore, 2000–2001.

IEEE Innovator, Portland State Aerospace Society, Fall 2000.

NSF Grant INT-9981317 ($12,808). *U.S.-Germany Cooperative Research: Advanced Techniques for Multi-Paradigm Declarative Languages*, with Sergio Antoy, 1999–2001.

Portland State University School of Engineering and Applied Sciences Outstanding Teaching Award, Computer Science, 1999–2000.

Best Student Paper. EURO-PAR, 1995.

University of Oregon Doctoral Research Fellowship (highest University of Oregon graduate student honor). 1994.

Governance and Other Professionally-Related Service

Governance Activities for the University, College, Department

Member, Undergraduate Committee, CS Department, Fall 2004–Spring 2004.

Member, Education Subcommittee, Graduate Committee, CS Department, 2003–2005.

Member, PSU Advisory Committee on Academic Information Technologies, 2000–present.

Equipment Committee member, CS Department, Fall 2001–present.

Faculty Advisor, Association for Computing Machinery Student Chapter, 2000–2002, 2004–present.

Ph.D. Qualifying Examination Coordinator, CS Department, 2001–2004.

Faculty Advisor, Portland State Aerospace Society (IEEE Aerospace and Electrical Systems Society), 2000–present.

Member, Search Committee, PSU Director of Information Services, Fall 2000–Fall 2001.

Admissions Committee, Oregon Master of Software Engineering, 1999–2000.

PSU Student Coordinator, Oregon Master of Software Engineering, 1999–2000.

Faculty, Oregon Master of Software Engineering, 1998–present

Colloquium Chair, CS Department, 1999–2000.

Faculty Meeting Secretary, CS Department, 1998–1999.

Professionally-Related Service

Program Committee co-chair (with Keith Packard), Freenix Track, Usenix Annual Technical Conference 2004. Refereed 80 papers, "shepherded" three.

Program Committee Member, Freenix Track, 2003 Usenix Annual Technical Conference. Refereed 66 papers, "shepherded" two. Chaired "Guru Sessions" on Embedded Systems and on the X Window System.

Memberships in Professional Societies

American Institute of Aeronautics and Astronautics, 2003–2005.

Usenix Professional Association, 2000–present.

Association for Computing Machinery, 1999–present.

American Association for Artificial Intelligence, 1995–2003.

Association for Logic Programming, 1992–1995, 2001–2003.