Martin Buchholz

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Objective   Senior software developer

Expertise   Developer of large software systems in a Unix environment for the past 15 years. Highly effective at making such systems a success.

- Many aspects of software development: performance, portability, documentation, testing, software development tools, process automation, mentoring, release engineering, systems administration
- Fluent in Java, C/C++, Lisp, Perl, sh, make
- Maintainer of such diverse large software systems as Sun Java, XEmacs, DB2
- Technologies: concurrent algorithms, infrastructure software, multilingual computing, Unix tools
- Long-term member of the open source community

Books   Primary reviewer of *Java Concurrency in Practice* by Goetz et al and *Java Generics and Collections* by Wadler and Naftalin.
Contributed a puzzler to *Java Puzzlers* by Bloch and Gafter.
Reviewed portions of *The Java Programming Language* by Holmes et al, *The Java Language Specification* by Bracha et al and *The Java Tutorial* by Rabinovitch et al.
Significant contributor to XEmacs project documentation, especially the *XEmacs Internals Manual*.

Experience   **Sun Microsystems**   *Santa Clara, USA*
2003 - present   Senior Java Core Libraries developer. Maintainer of significant pieces of the Java and C code in the core Java platform, including concurrency utilities, collections, subprocess support, jar/zip, character encodings and regular expressions. A (long) list of public changes I was involved with is available at http://wambold.com/Martin/Sun-work-history.html. Responsible for all aspects of software development, including bug fixes, API specification, unit testing, peer reviews, and mentoring of junior engineers. The "man at Sun" for a world-wide community of external contributors. Developed a suite of tools to enable other developers to become more productive. While acting as "integrator" for our team, developed an automated build-and-test system that made life easier for individual contributors while catching regressions early.

XEmacs Open Source Software Project   *Japan and USA*
1997 - 2001   Core maintainer of one of the most complex open source projects. Particular areas of focus:

- regular official releases
- bug fixes
- multilingualization
- Lisp byte compiler and interpreter
- Lisp object system and garbage collection
- configuration process and cross-platform portability
- performance
- automated test suite
- project administration (CVS, mailing lists, etc)
- documentation
- hash table implementation

Electrotechnical Laboratory (ETL)　　　　　　　　　　　　　　　*Tsukuba, Japan*

1999 - 2001　Visiting scientist at this Japanese research institute. Invited to ETL as a result of my previous work on XEmacs, especially in the area of multilingualization (ETL owns the `m17n.org` domain and is responsible for the multilingualization code in Emacs). Maintained XEmacs. Worked with developers of Emacs and XEmacs in Japan. Helped organize a conference on multilingualization in Japan.

Worley Laboratories　　　　　　　　　　　　　　　　　　　　*Menlo Park, CA*

1997 - 1999　Developed, ported, documented and tested plugins for *Lightwave 3D*, a professional three-dimensional animation system. Authored a Unix version of the Worley Laboratories graphical user interface toolkit. System administrator for machines running Linux, Solaris, and Windows.

Sun Microsystems　　　　　　　　　　　　　　　　　　　　　*Menlo Park, CA*

1995 - 1997　Responsible for all aspects of XEmacs. Projects included: enhancement of international capabilities, especially for the Japanese market; integration with the Sun WorkShop product suite; technical support for both internal and external users; analysis and repair of reported software problems; coordination of contributions of external developers into the primary XEmacs distribution; and build, packaging and distribution of the current version. Management of Sun-wide distributions of GNU utilities and other free software.

IBM Almaden Research Center　　　　　　　　　　　　　　　　*San Jose, CA*

1995　Supported the California-based part of the DB2 Unix database development effort. Designed, implemented, documented, maintained, and optimized development tools used in the daily multi-site code build process. Installed, customized, documented, and promoted free software at several IBM sites. Primary maintainer of XEmacs for IBM.

IBM Research & Development　　　　　　　　　　　　　　　　*Toronto, Canada*

1992 - 1994　Supported the development of DB2 in Unix. Improved the portability of the 500,000 line C code base while converting it to C++. Wrote an automated testing system in Tcl which enabled daily testing. Developed kermit extensions to implement a home terminal program which greatly simplified remote login. Installed, customized, and documented 3rd party software, especially GNU Emacs.

IBM Research & Development　　　　　　　　　　　　　　　　*Toronto, Canada*

1990 - 1992　Systems integrator in the port of the OSF DCE technology from Unix to IBM mainframe, AS/400, and OS/2 platforms. Developed, tested, and documented many tools for Unix, OS/2, and VM/CMS environments, using C, REXX, ksh, and awk.

Wolfram Research　　　　　　　　　　　　　　　　　　　　　*Champaign, IL*

1989 - 1990　Administered a multi-vendor Ethernet LAN of 50 Unix workstations, Macintoshes, and PCs. Developed, tested, and ported productivity tools in C, awk, csh, ksh. Developed automated test suites for *Mathematica*, a program to simplify symbolic, numeric, and graphical calculations, and manipulations.

IBM Research & Development　　　　　　　　　　　　　　　　*Toronto, Canada*

1987 - 1989　Application software developer for a product which administers a SNA communications network. Developed a method to dynamically reconfigure an active VM/SNA communications network running VTAM, NetView, PROP, and RSCS. Wrote an automated testing tool used for many programs in the VM/CMS environment. Implemented a structured source code printing utility for the C, C++, REXX, and PL/I programming languages (similar to the Unix `vgrind` tool).

IBM Research & Development　　　　　　　　　　　　　　　　*Toronto, Canada*

1986 - 1987　Developed tools to simplify and provide a consistent user interface for the installation of VM/CMS software products. Implemented tools for software test automation and on-line documentation generation. Wrote the code for the CMS command INSTFPP.

	IBM Research & Development	*Böblingen, Germany*
1984 - 1985	Provided system level software tool support in a sophisticated development environment for a large programming effort under VM/CMS. Implemented a "Consistency Checker" for a complex source code maintenance facility. Wrote a user interface to enhance the usability and performance of the CMS HELP facility. Evaluated and implemented many IBM internal software tools. Maintained code written in REXX, EXEC2, and Assembler.	

Education	**University of Toronto**	*Toronto, Canada*
1977 - 1982	Awarded Bachelor of Science in Mathematics, 1981. Received nine scholarships. GPA: 4.05/4.30. Published in *Mathematics Magazine*, September 1982, "Homomorphisms of Affine Projective Planes".	

Personal	Canadian citizen.
	Fluent German, reading knowledge of French.
	Represented Canada in international chess competitions (1977-1982).