Darren Hart

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Summary

Accomplished open-source systems developer and technical leader with strong communication skills and background in development, leadership, and publication. Seeking software engineering position with leadership responsibilities.

Technical

- Strong knowledge of C, C++, Python, Shell, with passing knowledge of PHP and Java
- Linux kernel defect analysis (ftrace, kdump, crash, etc.)
- Design of real-time systems and applications
- Linux kernel lightweight userspace locking (futexes)
- Multi-threaded application development, POSIX interprocess communication and synchronization
- Open-source software development methodologies

Leadership

- Technical interviews, feedback for hiring
- Managing communication of distributed development teams and inter-company collaboration
- Collaborative tooling and infrastructure (wiki, bugzilla, IRC, mailing lists, etc.)
- Technical input into project planning and sizing
- Technical task management and delegation
- Maintaining a highly productive, high morale team through an open-development model, shared responsibility, and clearly defined expectations
- Strong communication skills, able to function as intermediary between upper management and development teams

Professional

2004 to Present **IBM: Linux Technology Center** **Beaverton, OR**

- Lead a 12-15 person development team in a fast paced project to bring real-time Linux to market
- Strong customer facing contact, including on-site customer support and training regarding real-time Linux, as well as remote support and requirements definition
- Active participant in Linux kernel community events. Presented at the 2008 Linux Foundation End User Summit and interfaced with clients. Co-Presented at the 2007 Ottawa Linux Symposium. Will be presenting at 2009 LinuxCon and the 2009 Real-Time Linux Workshop. Administrator of
- Helped build the real-time Linux community, administrator of http://rt.wiki.kernel.org
- Initial maintainer of the IBM Real-Time Linux test suite, now integrated into the Linux Test Project (LTP)
- Real-Time Linux kernel defect analysis, with emphasis on worst-case latencies and proper real-time scheduling behavior
- Primary author of requeue support for priority inheritance aware futexes now in Linux 2.6.32 kernels

Internships **IBM**

- 2002 - Assisted with Linux bringup on the embedded PowerPC core of a network processor
- 2001 - Designed a tool to analyze the modularity of the glibc libraries and build minimal libraries
- 2000 - Wrote Java software to transfer legacy wafer test data to a new storage infrastructure
- 1999 - Wrote a graphical Java wafermap editor, MapView 1.0, put to use by various testing divisions

Publications

- Requeue-PI: Making Glibc Condvars PI-Aware, Oct 2009, Real Time Linux Workshop (RTLWS)
- Real-time Linux in Real Time, May 2008, *IBM Systems Journal*
- Internals of the RT Patch, July 2007, Ottawa Linux Symposium (OLS)
- Design and Implementation of a Comprehensive Real-time Java Virtual Machine, 2007, EMSOFT
- IBM WebSphere Real Time: Providing predictable performance, 2006
- We Are Not Getting Any Younger: A New Approach to Time and Timers, 2005, OLS
- Linux on NUMA Systems, 2004, OLS
- Glibc Componentization, 2001, *Embedded Linux Journal*

Education

1998 to 2003 **Brigham Young University** **Provo, UT**

- April 2002 Bachelors in Computer Engineering GPA 3.69
- December 2003 Masters in Computer Science GPA 3.80