

Adam Lazur

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Professional Objective

To obtain challenging and exciting employment doing development and/or research in a Linux environment. I have specific interests in high performance computing, distributed computing, and embedded systems though these are not necessarily a requirement.

Education

BS in Computer Engineering, June 2000

Lehigh University

Skills*Programming*

- Proficient in C, Perl, and Bourne/POSIX shell scripting
- Proficient at development in the UNIX environment (make, gdb, CVS, Subversion, diff, patch, awk, sed, screen, etc)
- Experience developing in Python, Java, C++
- Experience developing with an emphasis on robust, reliable, supportable code

Operating Systems

- Linux administration, maintenance, troubleshooting, packaging, etc
- Extensive experience developing and debugging Linux 2.4/2.6 device drivers in an embedded environment
- Experience developing and debugging Linux filesystems using User Mode Linux
- Experience rolling customized distributions of Debian GNU/Linux and RedHat Linux
- Some experience as a user/admin of FreeBSD, and as a user of various other UNIX flavors

Other Skills/Interests

- Understanding of embedded systems issues and constraints
- Understanding of high performance clustered computing and distributed systems issues
- Specific interests in single system image, OS design/implementation, and management issues associated with cluster computing
- Plays well with others

Employment History**Senior Software Engineer**

Lexmark International Inc

August 2001–Present

Software developer in the Network Firmware and Digital Office departments. Embedded Linux development on x86, MIPS, ARM, and PowerPC architectures.

Projects:

- Firmware development for 3 generations of print server products
 - Performed firmware bootstrapping for each new product board (ARM processor)
 - Responsible for embedded USB host device driver (Lexmark flavored OHCI) and various USB class drivers for print server products
 - Debugged myriad of implementation quirks between USB Host and a wide range of printers with CATC USB protocol analyzer
 - Implemented UI processes and drivers to communicate with LEDs, buttons, and LCD
 - Implemented firmware update handling code
 - Linux OS support for the rest of the network firmware development team
 - Miscellaneous build system hackage and imake wrangling
 - Wrote and supported code to perform manufacturing functional test
- Improvements to software development environment

- Led the transition from legacy csh+RCS+perl version control system to subversion based system
- Extended Lexmark proprietary build system to allow arbitrary per-user extension, specifically to enable distcc and ccache
- Authored developer tools to speed up "daily grind" operations for ~120 developers which reduced some common development operations from 1hr to <5 minutes.
- Network firmware development for laser printer products
- Firmware team lead for <unreleased product>
- Responsible for various network device drivers: 10/100 ethernet, 10/100Mb fiber ethernet, tokenring
- Implementation of a network device driver for the Intel 21143 chipset
- Responsible for NVRAM (nandflash, I2C EEPROM) code to store network settings
- Miscellaneous Linux kernel hacking, systems programming, and Linux OS support for network firmware team
- Software development on multifunction printers
- Implementation of "disk repair" strategy to combat filesystem corruption and hardware failure
- Implementation of Fax over IP (T.38) protocol for OpenH323 Project
- Integration of Fax over IP code with Lexmark proprietary fax application
- Maintenance of low level packet filtering and mangling code
- Corporate Accolades
- Identified as a technical leader within the corporation and enrolled in "Technical Leadership Development Program"
- Received "Make it Happen Award" for participation in resolution of a "critical" customer situation
- Nicknamed "Man of The Future" by management

Consultant

Progeny

April 2003–June 2003

Projects:

- Debian compatibility layer in Anaconda (the RedHat Linux installer) for Componentized Linux.
- Wrote and debugged Python code to overload the RPM class with a Debian compatibility layer which allowed a full Debian installation with Anaconda
- Progeny hyped this achievement on slashdot and still has propaganda on their web site

Consultant

Progeny

September 2002–January 2003

Projects:

- Implementation of the Gelato Linux Distribution
- Itanium2 Linux distribution based on RedHat Linux 7.2 for the Gelato Federation. Gelato Linux is specifically targeted at high performance computing and features integration with OSCAR

Systems Programmer / Software Engineer

Progeny Linux Systems

October 2000–July 2001

Projects:

- Development for the Progeny NOW project
- Distributed filesystem development for the Linux 2.4.x kernel using User Mode Linux
- Server-side design and implementation of Progeny Service Network (PSN)
- Design of machine management and software updates service for Progeny Debian
- Design and implementation of database for server-side of PSN using Tangram (an object persistence framework)
- Implementation of a web-based frontend using HTML::Mason for management of machines, users, and accounts as well as browsing of available packages
- Development for Progeny Debian (a Linux distribution)
- Packaging and maintenance of the 2.4.x Linux kernels
- Design and implementation of cdrom creation and release process

Software Engineer

Paralogic, Inc.

June 1999–October 2000

Design, construction, and implementation of clustered Linux supercomputers (Beowulf Clusters) according to customer specification

Projects:

- Evaluation and implementation of technology to assist with clustered machines (management/administration software, etc)
- Design and implementation of cluster software install automation
- Linux admin, troubleshooting, and development, including RPM package development
- Cluster Benchmarking (stream, netperf, NAS, bonnie, netpipe, etc)
- MOSIX support/admin
- Customer support (on-site, phone, and email)

Assistant to Systems and Networking Administrator

Lehigh University Computing Center

September 1998–June 1999

Configure, update, and debug Windows applications run from central servers.

Java Programmer

Lehigh University EECS Dept. & Online Data Systems

December 1997–July 1998

Conversion of a legacy COBOL inventory order, sales, and management application from RS400 mainframe clients to a Java GUI

Professional Memberships

Debian Developer

The Debian Project

October 2001–Present

Maintenance of screen package.

IEEE

ACM

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