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## **Skills Summary:**

Operating Systems: Various UNIXes (Linux, BSD UNIX, Solaris, Digital UNIX, HP-UX, IRIX),

DEC VMS, Microsoft Windows (98, NT4, 2000, XP, Vista, 7, Server 2003), Mac OS, Cisco IOS

Hardware: Various UNIX workstation and server hardware (Sun SPARC, HP-UX, SGI),

DEC VAX, Apple Macintosh, x86 PCs (desktop, laptop, server; 32-bit, 64-bit)

Network Hardware: Cisco routers, switches, firewalls; Checkpoint firewalls;

## **Employment History:**

## Linux Systems Administrator - Boston Linux & UNIX - 1994- Present

Volunteer projects - 2011-2014

Performed several server rebuilds to replace aging hardware and update OS and application software. Developed and deployed a backup system based on Amazon S3 storage. Researched IPv6, then planned and tested a network upgrade to deploy IPv6 in a dual-stack configuration. Wrote scripts to archive enormous message threads from a phpBB online forum. Designed website for nephew's business. Built development server using Linux Containers (LXC) and Docker on Ubuntu 14.04 LTS.

#### IT Systems Administrator - Zuken USA Inc. (Westford, MA) - August 2005-August 2010

Handled all IT support, systems administration, and network administration for U.S. employees of multinational company. Maintained and upgraded servers and network. Migrated main office to new, higher-bandwidth ISP. Replaced old mail server with Microsoft Exchange 2007 to integrate with European offices' email and calendar system. Wrote custom web-based tools to support orphaned CRM system while European teams evaluated possible replacements. Purchased new desktops, laptops, and home office equipment for all employees on 3-year refresh cycle.

## Customer Service Representative - Internal Revenue Service - January 2005-July 2005

Processed 1040X Amended tax returns and investigated duplicate tax return cases.

#### Network Upgrade - P. M. Computers (Braintree, MA) - July 2004-December 2004

Migrated a small real estate business from a Windows 98 based file server to a server based on Red Hat Linux and Samba, along with development of a proper backup strategy. Included bringing email in-house, deploying an internal DNS server, and training office staff.

#### Consulting jobs and Volunteer projects - January 2002-June 2004

Built a Gentoo Linux server to replace the aging BLU.ORG mail/web/dns server.

Installed RequestTracker helpdesk system on a Red Hat 8 server.

Designed and built a network infrastructure for a friend's home office, including a firewall appliance, a DNS server, a central mail server, and a web server, and provided him with training.

Organized and ran many Linux Installfests where I brought together a number of volunteers for an all-day Saturday event, and we helped attendees to install Linux on their computers.

Helped a friend complete a tricky Solaris installation and configuration for a medical researcher client at Brigham & Women's Hospital.

Built a backup server on my home network that used rsync tunneled over ssh to create hourly/daily/monthly snapshot backups to a central disk and then archive them to tape periodically.

Set up a web-based email server so I'd be able to access my email when I was away from home.

Built a Red Hat Linux mail server.

Installed & configured X terminal workstations; LDAP directory server; DNS servers; Solaris print server; Apache Jakarta/Tomcat JSP server.

Learned Mason, a perl-based web template module for Apache.

Extended knowledge of PostgreSQL database programming.

## Unix Systems Administrator - NeTegrity (Waltham, MA) - September 2001-October 2001

Installed Solaris 8 on several new Sun Blade workstations. Configured a new HP-UX server. Added new users and new workstations to NISPLUS. Performed daily and weekly backups. Diagnosed and repaired misconfigured router in testing lab. Replaced bad drive in Solaris DiskSuite raid volume. Restored user files from Legato backups. Upgraded Java JVM on a development server. Built a Linux server to host RequestTracker helpdesk software. Deployed openssh on servers and workstations. Configured Exceed (X display server for Windows) for several users.

Built a Linux desktop and a laptop to integrate with Exchange mail server, including StarOffice office suite, exmh mail reader, and a custom perl/ldap script for address lookup through Exchange.

#### Volunteer projects - March 2001-September 2001

Designed and deployed a new Internet server for my Linux user group.

Installed off-site development server on home network to test new software platform before purchasing and installing new server hardware at our co-location site.

Built secure development server on a Red Hat 7.1-beta platform; tested performance and security of Linux native firewall software.

Installed BIND 9.1.1 to run as a non-privileged user in a chroot-jail environment.

Removed sendmail software and replaced with postfix smtp server, configured to run as a nonprivileged user in a chroot-jail environment. Configured it to use MAPS RBL to filter out spam mail, and added virtual-domains for several other groups that we provide email services for.

Reviewed all content on the old web site, cleaned out dead links and stale data. Tracked down many missing items from my archives.

Developed a custom Calendar application using PostgreSQL database server, and rewrote major sections of our web site to reference the database via PHP in order to automate or simplify web content maintenance and eliminate duplication of data.

## Unix Systems Administrator - ITworld.com (Southboro, MA) - May 2000-February 2001

Performed UNIX system administration and software support of applications and systems based on Sun Solaris, RedHat Linux and Windows NT 4.0 server platforms.

Performed day-to-day administrative functions, including creation of new user and email accounts, monitoring systems for performance and security, assisting developers with design and debugging of perl scripts, troubleshooting user, system, network, and database problems.

Upgraded DNS servers and overhauled DNS zone files for ITworld's many domains, to address security and performance issues with the servers and inconsistencies in the zone data.

Deployed a Systems Support intranet, including an automated helpdesk system (RequestTracker), a network performance monitor (Big Brother), an inventory of servers and desktop systems, and a repository of help files for common problems. Integrated user authentication with the pre-existing Lotus Notes server via Apache LDAP module.

Participated in planning and deployment of ITworld's "Version 2" web site, which replaced their original site.

Deployed SSH and SFTP on all desktop systems to replace Telnet and FTP to address security concerns.

Unix Systems Administrator - Synopsys (Marlboro, MA) - September 1998-March 2000

Performed UNIX system administration and software support of applications and systems based on SUN SOLARIS, HP-UX, AIX, Windows NT 4.0 server platforms.

Planned and deployed separation of intermingled Synopsys and ViewLogic network environments for spinoff of ViewLogic Corporation from then-parent corporation Synopsys, and reconfigured new Synopsys network at Marlboro site to fit in with worldwide Synopsys network.

Participated in planning and relocation of Synopsys networks from Marlboro and Burlington sites to new combined location in Marlboro

Worked with Y2K Transition team at Marlboro site to identify and correct all Y2K issues on Unix and NT platforms.

Installed and upgraded Solaris workstations and servers.

Installed and maintained Samba server software to facilitate nightly benchmarks and regressions of NT builds from the primary sources on Unix.

Installed, upgraded, and maintained several NetAppliance disk servers. Installed DLT tape library unit for backups of NetAppliance servers and local disks on Unix workstations via Budtool software.

Installed and managed licenses for Purify and related developer tools on Unix and NT platforms.

Installed and maintained suite of GNU and other open-source software.

Debugged and deployed Linux productivity tools on Solaris; build GNOME and KDE desktop environments on Solaris, GAIM Instant Messenger client, Mozilla nightly test builds, AbiSuite word processor alpha and beta builds, StarOffice office suite, etc.

Installed, modified, and maintained BIG BROTHER network monitoring suite

#### Unix Systems Administrator - Polaroid (Norwood, MA) - June 1997-July 1998

Performed UNIX system administration and software support of applications and systems based on HP-UX, SUN SOLARIS, SGI, IRIX, and Windows NT server platforms.

Installed and maintained Samba server software on numerous UNIX servers to provide file and printer sharing to NT and Windows 95 client workstations.

Upgraded Sun StorageWorks RAID arrays.

Installed and configured OpenVision distributed backup software.

Maintained and extended custom CAD parts-retrieval system, based on an Oracle SQL backend and a Motif front end.

Developed scripts to automate loading of legacy CAD data into Oracle backend.

Installed and maintained GNU software development tools on multiple platforms.

Installed and administered numerous Windows NT workstations.

Supported users of Pro/Engineer CAD software, revs 17 and 19.

Developed printer filters for Calcomp Drawingmaster plotters, using ghostscript software to convert postscript to Calcomp Raster Format (CCRF).

Developed custom helpdesk software for the department intranet, using Perl, CGI, SQL with a SQL database backend, so users could submit trouble-tickets and admins could maintain an audit trail to capture expertise and develop a repository of "Frequently Solved Problems".

## Unix Systems Administrator - NECX (Peabody, MA) - August 1996-March 1997

Performed Unix system administration, troubleshooting, upgrades and maintenance on Solaris systems.

Researched, purchased, and installed Sun Ultra Systems.

Upgraded, documented, and streamlined mission-critical production and developer web servers to Solaris 2.5.1 and Netscape Enterprise servers.

Established a Virtual Private Network between NECX and a corporate partner.

Installed and configured routers.

Installed and configured Linux DNS servers for DMZ network.

Researched, purchased, and installed high-performance firewall; selected Cisco PIX.

Worked with outside consultant to conduct a security audit of NECX network.

Installed and configured ARCserve tape backup software on all Solaris systems.

Upgraded tape drives to Quantum DLT tape drives.

Worked with Sybase DBA to upgrade Sybase software.

Developed system monitor suite to continually check the integrity and availability of all servers, and automatically paging admins when failures occurred.

Developed project management procedures during a 7x24 Coverage project.

#### Systems Administrator - Millenium Pharmaceuticals (Cambridge, MA) - May 1996-June 1996

Performed UNIX system administration and support including installation, troubleshooting and upgrading UNIX workstations and servers (1 DEC ALPHA & 4 SPARC ULTRA).

Managed NISPLUS host and user databases.

Enhanced a locally-developed web-based helpdesk system that tracks and manages user problem reporting and problem resolution.

#### Network Engineer Consultant - DEC (Salem, NH) - March 1996-May 1996

Prepared high-end turnkey systems (DEC-Alpha Server 4100 systems) for installation by Digital technicians at customer sites.

Performed exhaustive testing (ISO 9000) on all hardware components.

Installed and tested operating systems on servers.

Configured and tested StorageWorks RAID driver firmware.

Installed and tested third party Ethernet, FDDI and ATM network cards.

Internet Services Engineer - Boston Computer Society - 1990-1996

Installed and maintained a network of UNIX, Windows 3.1/95 and MacOS workstations to access Internet services.

Built and maintained BCS Internet mail server and established Internet connection for BCS offices.

Wrote custom applications for preparing BCS monthly Calendar of Events, with a CGI back-end for producing an online Web calendar, and a LaTeX-based back-end for producing the photo-ready copy of the Calendar for publication in the monthly BCS Magazine.

Developed a BCS Membership database using UIUC CCSO nameserver software and integrated with the Internet email and web server, to bring in-house the previously outsourced membership database as a cost-cutting measure.

Trained members in Web authoring including HTML, CGI programming and imagemaps, and taught introductory classes on Unix, C++ Programming, Windows NT, Novell Netware, etc.

#### **Professional Societies:**

Boston Linux & Unix (BLU) - April 1994-Present (Founder; Executive Director)

USENIX - August 1999-Present

The Boston Computer Society (BCS) - December 1985-September 1996

#### **Education:**

Computer Science major, University of Massachusetts, Boston, 1983-1986.

20 Credits remaining for completion of Bachelor of Computer Science curriculum.

Physics major, Northeastern University, 1982.

Changed major and transferred to UMass/Boston after first year