David J. Smith

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Summary of qualifications

Programming Languages

- Extensive experience developing and deploying software in C++, Java, and PHP.
- Competent in Python, Perl, Visual Basic, Scheme, and Borland Delphi.

Skills Summary

- Experience leading teams of engineers from concept to successful deployment.
- Experience serving as customer point of contact.
- Experience designing gorgeous user interfaces:
  - Experience with Qt, Java Swing, Java SWT, and Borland Delphi.
  - Strong track record creating GUIs with eye-candy that customers love.
- Experience developing embedded Linux applications in C and C++.
- Experience using and analyzing network protocols including:
  - TCP/IP, UDP, Ethernet, 802.11 (WiFi), HTTP, SDH, and many others.
- Experience installing, securing, and administering Linux servers, including Red Hat Enterprise, Fedora, Debian, Ubuntu, Gentoo, OpenWrt, and custom-built distributions.
- Competent in SQL database design using:
  - MySQL, PostgreSQL, SQLite and (some) Oracle.

Work experience

October 2004 – Present   **Applied Signal Technology**

Software Engineer and Systems Engineer

- Led teams ranging from 2 to 20 engineers as technical lead and systems engineer.
- Developed cross-platform software for commanding and monitoring signal processing equipment in heterogeneous Windows and Linux environments.
- Responsible for embedded software development and Qt GUI design for several new FPGA-based digital microwave radio products.
- Developed embedded control software using C++ and embedded Linux:
  - PowerPC, Xilinx μBlaze and Altera Nios-II architectures
- Created a custom embedded Linux distribution using Busybox and Buildroot, including a Linux device driver to interface with Xilinx FPGAs.
- Designed back-end C++ software and Qt GUI for a distributed monitoring system that scaled to hundreds of devices and tens of thousands of sensors. Deployed at several sites worldwide.
- Developed TCP/IP communication protocols for use in highly latent networks.
- Worked closely with customers to deliver several successful high-profile products.
- Presented training seminars to fellow engineers and demonstrations to customers and potential customers.

October 2009 – May 2010   **LiveWire Test Labs**

Software Engineer

- Designed and developed the company's next generation user interface using Qt.
- Ported user-land USB code from Windows to Linux using libusb.
- Ported and optimized existing software for embedded Linux running on the ARM Coretex-A8 and MIPS AR71xx architectures.
- Achieved real time processing of USB data under heavy hardware resource constraints.
- Built a web-based controller to monitor and control multiple devices.
- Found and submitted upstream patches for bugs in Ubuntu, Buildroot, and OpenWrt.

June 2003 – October 2004   **Lockheed Martin**

Technical Lead

- Led team of 5 software engineers to develop a portable biometric system

- Served as technical point of contact to customer, and received spot award for helping improve customer relationship.

Software Engineer
- Developed a distributed mobile agent framework in Java for command and control.
- Created a Java Swing GUI for controlling mobile agents on remote hosts using RMI.

May 2002 – June 2003   **Brigham Young University CS Department**

Systems Programmer and Administrator
- Developed PHP, Perl, and Bash scripts to automate maintenance of 200+ Linux workstations and servers running Red Hat Linux.
- Developed web application to manage OpenLDAP server with 5,000+ users.
- Administered servers providing NFS, Samba, DNS, DHCP, LDAP, and SQL services.
- Created a PHP/MySQL monitoring system to log millions of HTTP requests daily.

Aug 2001 – July 2002   **Novell**

Software Quality Intern
- Tested Novell LDAP utilities and eDirectory on Red Hat Linux.

Education

1997 - 2003   **Brigham Young University, Provo, Utah**

B.S. Computer Science
- GPA: 3.9 (Computer Science), 3.7 (Cumulative)

Volunteer experience

June 2004 – Current

Azureus/Vuze BitTorrent Plugin Developer
- Created open source plugin called Speed Scheduler to help users manage their bandwidth usage on a schedule, using Java, SWT, Ant, and Eclipse.
- Used by approximately 30,000 users worldwide.

October 2002 – March 2005

Lead Developer, phpLDAPadmin
- Wrote web-based LDAP administration tool in PHP.
- Fixed bugs and implemented feature requests from thousands of users.
- Created i18n infrastructure for translation into 11 languages.
- Led other volunteer developers.

March 2002 – April 2003

Web Team Lead, BYU Unix Users Group
- Created dynamic web site with PHP and MySQL on Debian and Red Hat Linux.
- Led 3 volunteer web developers.
- Gave technical presentations on Linux technologies to students and faculty.

May 1998 – May 2000

Missionary, Church of Jesus Christ of Latter-day Saints
- Spent 2 years in Western Venezuela speaking and teaching in Spanish.
- Created software for managing mission statistics from 200 missionaries.

Languages
- Fluent in written and spoken Spanish.

Security clearance
- Active TS clearance with SSBI.

Interests
- R/C aviation
- Open source development