

## 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

- Extensive experience designing GUIs with C++, Qt, Java Swing, and Java SWT.
- Experience creating GUIs filled with eye-candy that customers love.
- Experience developing embedded Linux applications in C and C++.
- Experience leading teams of engineers from concept to successful deployment.
- Experience serving as the customer's technical point of contact.
- Experience using and analyzing network protocols including TCP/IP, UDP, Ethernet, 802.11b (WiFi), HTTP, and many others.
- Experience installing, securing, and administering Linux servers, including Red Hat Enterprise, Fedora, Debian, Ubuntu, and Gentoo.
- Competent in SQL database design with MySQL, PostgreSQL, and (some) Oracle.

## Work experience

**October 2004 – Present**

**Applied Signal Technology**

### Software Engineer

- Developed software under Linux and Windows for commanding and monitoring signal processing equipment.
- 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 on PowerPC. Also wrote software for Xilinx  $\mu$ Blaze and Altera Nios-II soft core FPGA processors.
- 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.
- Served as team lead and system engineer for teams ranging from 2 to 20 engineers.
- Worked closely with customers to deliver several successful products.
- Organized and presented training seminars to fellow engineers on various software development technologies and tools.

**June 2003 – October 2004**

**Lockheed Martin**

### Technical Lead

- Led team of 5 software engineers to develop a portable biometric system providing iris, fingerprint, and facial recognition capability on Panasonic Toughbook laptops.
- 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.
- Wrote a Java Swing GUI for controlling mobile agents on remote hosts using RMI.

**May 2002 – June 2003**

**Brigham Young University**

### 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.
- Maintained 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.
- Wrote documentation to speed training of future testers.

**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.
- Used 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.
- Directed other volunteer developers.
- Created i18n infrastructure for translation into 11 languages.

**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 other 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.

**Awards received**

- Eagle Scout
- Member National Honors Society
- Dean's List at the BYU College of Physical and Mathematical Science