

JULIA WOLF

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PASSION

Low-level bit-twiddling and doing things no one has done before. I want to create something used by millions of people.

RESUME OBJECTIVE

This is a general overview of my experiences. It is not focused on a specific employment position.

SPECIAL SKILLS

- The ability to rapidly diagnose problems, using intuitive knowledge of the following:
- Expert knowledge of TCP/IP; including Bandwidth Management, Firewalls, IDSs, and VPNs.
- Nine Years of experience using and administrating Linux. (from 1.2.13, libc4 to present)
- Familiar with Linux internals and IA-32 assembly programing.¹
- Strong background in computer security, including cryptography and reverse engineering.
- Multiplatform development with C; Perl; and Java with libc, and Cocoa.
- Broad knowledge of data storage technologies and file formats.
- Digital image manipulation and processing² development.
- Experience with many obsolete technologies.

PROFESSIONAL EXPERIENCE

Linux Engineer and OS X/Java Developer

May 2004-Present

LinuxCertified, Inc.; Sunnyvale, CA; <http://www.linuxcertified.com>

- Automated repetitive, time-consuming, manual image processing performed by Digital Artists. Designed and implemented a photographic asset management system for Gap inc. consisting of an OS X Cocoa front-end for image manipulation, and an image processing back-end written in C running on Linux.
- At Gap inc., replaced unstable Kodak³ (WinNT) server with stable Linux server running my Perl re-implementation of Kodak software functions.
- Created system restore CD, a small initrd environment, for Sage-N Research's Sorcerer. Restore CD used for system installation, at assembly time, and later for recovery at customer sites.
- Added Linux Software Suspend support to Laptop Product Line and built many custom Fedora RPM packages for laptop hardware.
- Wrote Linux administration course material on Linux Kernel, and Security; presented it to customers in multi-day training sessions. Improvised long presentation on Linux kernel boot process, and modules; for Veritas developers.

Member of Technical Staff

May 2000-Jun 2001

Packeteer, Inc.; Cupertino, CA; <http://www.packeteer.com>

- Wrote low level network test tools to find vulnerabilities; analyzed the design of software modules. Performed black box QA testing and reverse engineering, as well as source code analysis of the Packetshaper and other products.
- Automated test for heavy loads; Wrote tools which deliberately broke protocols. Tested effects of *broken* IP stacks.
- Wrote internal documentation and reports. Discovered security vulnerabilities in embedded network devices. Lead tester for administrative reporting product Reportcenter, as of June 2001 no bugs had been reported by customers.
- Wrote specification for Radius implementation in Packetshaper.
- Setup databases and heterogeneous network testing labs. (Oracle, IIS, Solaris, WinNT, Linux)

Database Administrator/Developer/Quality Assurance

Aug 1996-Aug 1997

Market Power Computer Innovations, Inc., Nevada City, CA

- Administered all testing and developer databases – a mixed environment (Oracle, Sybase, and others) on WinNT.
- Saved two customer accounts by developing database stored procedures to fix customer problems with product.
- Wrote user documentation concerning remote database synchronization specifications, and lead tester for said product [Visual Lynx].
- Performed software QA of Sales Automation product [Visual Matrix].

Short contract jobs (general fix-Windows jobs, and some database programming) have be omitted for brevity and relevance.

Employment punctuated with pursuit of Physics/Computer Science degree.

For Education history, see other side.

EDUCATION

Major Bachelor of Science in Physics with Computer Science Minor
 Location Idaho State University, Pocatello, ID
 Current Class Level: Senior

Major Associate of Science in Computer Software Engineering with Network Specialty
 Location Idaho State University, Pocatello, ID
 Graduated with 3.5/4.0 GPA

BUZZWORDS

Most of these are things I have been asked about by job recruiters previously, so I present them here, now, to save time.

Low Layer Network Protocols	802.3, 802.11b, IPv[4 6], IPSec, ICMP, UDP, TCP, OSPF, PPP, [...]
High Layer Network Protocols	SSH [scp sftp], SSL, FTP, HTTP, Telnet, SNMP, SMTP, Radius, [...]
Network Tools	tcpdump, ethereal, nmap, nessus, snort, ip[chains tables], bpf, Checkpoint FW-1, [...]
Database Systems	FileMaker, Oracle, MySQL, Postgres, MS SQLServer, [...]
Operating Systems (platform)	Linux(x86,ppc,sparc), OpenBSD(ppc), NetBSD(ppc,sparc), OpenDarwin(ppc), Mac OS[9 X], Solaris 7 (sparc), Windows NT/2003 Server (x86), Windows 9[5 8]
Linux Distributions	Slackware, Gentoo, Debian, Fedora, RedHat Enterprise, KNOPPIX, SuSE
Programming Languages	C, C++, 80x86 Assembly, Perl, bash, awk, sed, Java, Pascal, Visual Basic
Markup Languages	HTML, XML, SGML, L ^A T _E X
Apple/Gnu Development Tools	XCode, gcc, gdb, objdump, as, nasm, make
Security Buzzwords	VPN, IDS, PKI, [heap stack] overflows, format string errors, SQL injection, FIPS
More Obscure OSes	OpenVMS [5 6] (ka42), OS/278 (Harris 6120), OS/2 (x86), AmigaDos (M680[0 2]0), HP-UX 10, IRIX [5 6], OS/400, PetDos (MOS6810)
More Obscure Languages	DCL, Postscript, Cobol, RPG/400

(Actually, no one has asked about the Obscure stuff at the bottom of this list.)

OTHER ACTIVITIES

Former President and co-founder of the Idaho State Linux Users' Group [ISLUG]

ISLUG setup and maintained first Linux computer lab for students. (Independent from ISU Computer Center)

Organized several public demonstrations of Linux, and installfests.

Currently writing a book on superscaler and vector optimization in IA-32 and PPC (7450) assembly. No Starch Press has expressed interest in publishing it. This will cover more than the usual Linear Algebra (FFTs, DCTs, etc.) that vectors are typically used for; such as error correction codes and cryptographic functions.

SHORT AUTOBIOGRAPHY

I started programming 8-bit microcomputers (M6502/MOS6810/Z80) when I was seven years old. As a teenager I programmed on a VAX cluster. Obtained internet access via an Alliant (weird m68k) system in 1992, previously only used X.25 nets and BBSes. [Was sysop and co-sysop of a few boards] Mostly hung out on HP9000 systems early in college (before I started using Linux). Held several IT jobs not mentioned above.

LANGUAGES SPOKEN (in order of fluency)

English, French, German, Japanese. (Can roughly translate, written Gaelic; Latin; and Russian, with a dictionary.)

CERTIFICATES

I believe that IT certifications are meaningless. Although I possess one, I do not wish to be associated with certifications.

WORK ELIGIBILITY

I am a U.S. Citizen. *(That is to say, I am eligible for a security clearance.)*

¹The INT80 syscall interface, dlmalloc() implementation, etc.

²Geometric transforms, filters, and color management.

³Search <http://www.kodak.com> for "ColorFlow"