

# Nathan Paul Simons

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## JOB OBJECTIVE

A position designing and developing high quality open source software for Linux that is maintainable, portable, extensible and reusable.

## EDUCATION

New Mexico Institute of Mining and Technology, Socorro, NM  
Bachelor of Science, Computer Science, May 2000

## EXPERIENCE

**Computer Scientist**                      Naval Air Warfare Center                      Fall 2001-Present  
China Lake, CA  
Modified IDAP2 (In-flight Data Acquisition Pod) software to collect data over Ethernet (C++ on VxWorks/PowerPC).

Ported DPSS (Digital Precision Strike Suite) to VxWorks on PowerPC and converted to library for use in embedded applications (C++ development and testing on Linux/ia32, VxWorks/PowerPC and Windows).

Wrote Linux/ia32 kernel driver and userspace application in C for collection of serial data on PC104 stack.

**Junior Engineer**                      Finite State Machine Labs                      Spring 2000-Fall 2001  
Socorro, NM  
Designed and implemented various new features of RTLinux, including user-level real-time signals library, regression tests, and ported the in-kernel RTLinux debugger to Alpha platform.

**Systems Programmer**                      New Mexico Tech Computer Center                      Spring 1998-Summer 2000  
Socorro, NM  
Maintained network, computers and related systems; areas of responsibility included FTP server, print server, UNIX/Win95 apps, Linux systems, Macintosh lab, Solaris systems.

## COMPUTER SKILLS

*Languages:* Proficient in C, C++, Perl, UNIX shells; familiar with Python, Tcl, Java, Scheme, LISP, HTML, CSS,  $\LaTeX$ , SQL, JavaScript, sed, awk, Objective-C

*Toolkits/Frameworks:* Proficient with C++ STL, Qt, FFTW, libtut, libcoyotl, wxWidgets; familiar with FLTK, Tk

*OSes/Environments:* Proficient with Linux (Debian), Emacs, vim; familiar with MacOS9 and X, Windows 2000/XP, Eclipse

*Tools:* Proficient with git, Subversion, make, SCons, VirtualBox, valgrind, Electric Fence, GCC, bastille, tiger, chkrootkit, iptables, Apache, djbdns, sshd, qmail; familiar with SQLite, flawfinder, pmccabe, pscan, rats, fuzz, splint, bfbtester, qemu, bochs, dosbox, monotone

## LIFE OUTSIDE OF WORK

Member of the Association for Computing Machinery (1996-Present)

Member of the China Lake Mountain Rescue Group (2008-Present); helped teach summer class; searched for and rescued multiple people

Saxophone section leader, librarian, webmaster and email list administrator for the Big Band X-Press (2001-Present)

Manage a heterogeneous home network, including file, print, web (with blog) and email server centered around Debian GNU/Linux (2000-Present)