Nathan Paul Simons

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GOAL

To make awesome open source software while working 100% remote.

EDUCATION

New Mexico Tech, Socorro, NM
Bachelor of Science, Computer Science, May 2000

EXPERIENCE

Computer Scientist   Naval Air Warfare Center   November 2001-May 2021
                                China Lake, CA

Supported EIS (ESSM International Simulation) developing software simulation in C++ that interfaced to MATLAB generated C and FORTRAN. Implemented unit tests, heap bounds checking, and parallel batch test runs of scenarios for entire simulation in Python. Initiated project to setup continuous integration.

Supported DTRA (Defense Threat Reduction Agency) developing counter-UAV, counter-IED, and counter-tunneling models and simulations, as well as various smaller projects such as creating parsers for file formats of data collected from testing.

Lead a small agile team for RF modelling of IED training simulation written in C++ and targeting Unreal Engine (I-GAME; included CI and CR using Jenkins, Gerrit, Sonar and Bugzilla).

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 and VxWorks/PowerPC).

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.

SKILLS

- *Languages:* Mastery of C++; Proficient in C, Common Lisp, Python, bash; familiar with, HTML, CSS, LaTeX, SQL, sed, awk
- *Toolkits/Frameworks:* Proficient with C++ STL, libtut, QuickLisp; familiar with Python standard library, Qt
- *OSes/Environments:* Mastery of Linux (especially Debian), Mastery of Emacs; Proficient with Vim
- *Tools:* Proficient with git, make, KVM, GCC, UFW, lighttpd, NGINX, sshd, Postfix; familiar with Docker, SQLite, MySQL, PostGreSQL, salt, Jenkins, Gerrit, Sonar, Bugzilla, SCons

LIFE OUTSIDE OF WORK

- Member of the China Lake Mountain Rescue Group (2008-Present); field team leader; organized Summer class; searched for and rescued multiple people; manage website, email and other IT; developed alert system integrating telephony and asset tracking.
- Saxophone section leader, librarian, webmaster and email list administrator for the Big Band X-Press (2001-Present).
- Manage multiple servers and home network, including file, print, web and email server centered around Debian GNU/Linux (2000-Present)
- Hold a Technician class amateur radio license.