

Brian M. Nelson

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EXPERIENCE **Debian GNU/Linux**, July 2002 - Present, *Package Developer*

- Contribute and maintain several software packages, including GNU/Aspell and Trolltech's Qt4, and documentation to the Debian GNU/Linux distribution on a volunteer basis.
- Acted as an Application Manager and a Front Desk member for the Debian New Maintainer program (retired 2007).

Catch Media, Inc., June 2003 - December 2008, *Lead Software Developer*

- Designed and developed the "Killer Media Application" (KMA) embedded Linux-based Qt GUI front-end, the database back-end, and the USB peripheral sub-system.
- Designed and developed an animated Linux-based Qt GUI front-end for portable audio/video media players, based on AMD Alchemy Au1200 hardware.
- Assisted in development of the KMA audio recording backend, particularly with developing algorithms for screen change detection.
- Implemented the build system used for KMA and maintained a custom package archive and system installer. Acted as release manager for coordinating stable and development releases.
- Assembled and maintained a custom Debian-based installer to automate setup of new machines with a fully configured and functional KMA system.
- Assisted in development of the PlayAnywhere™ embedded cellphone client. Implemented HTTP/HTTPS support in the client. Designed a multi-threaded caching and pre-fetching system for HTTP/HTTPS transfers used by the client.
- Modified Qt/Embedded to display KMA on a custom video chip using the chip's On-Screen Display functionality.

Fern Engineering, Inc., June 1997 - June 2003, *Software Engineer*

- Designed and developed a cross-platform Qt-based graphical user interface Fern's PEGASYS™ performance monitoring software suite.
- Developed Ladder Logic code for Allen-Bradley PLC's for controlling a gas turbine inlet fogging skid. Traveled on-site to several locations to assist and debug in field installation tests.
- Engineered software to predict and compare the effects of various methods of water injection in General Electric LM2500 marine gas turbines for the U.S. Navy, and produced extensive technical documentation to vindicate my results.
- Implemented steam turbine and centrifugal pump performance monitoring in Fern's PEGASYS™ performance monitoring software suite.

SKILLS

Programming Languages: C++, C, Python, Perl, Bash shell, SQL, Java, Visual Basic, BASIC, FORTRAN, Ladder Logic, and Pascal

Programming Toolkits: Trolltech's Qt 2/3/4, Microsoft Foundation Classes (MFC), ADAPTIVE Communication Environment (ACE)

Build Automation: GNU Make, Automake, Autoconf, Libtool, qmake

Administration: Apache, Bind, Exim, Postfix, Courier IMAP, CVS, MySQL, OpenSSH, Subversion

Text Formatting: XML, HTML, SGML, TeX, L^AT_EX, DocBook

EDUCATION

Cornell University, Ithaca, NY

B.S. in Mechanical Engineering, concentration in Aerospace Engineering, May 2000