

## SUMMARY

Versatile R&D professional with eight years experience solving problems and developing software for embedded systems.

## SKILLS

- Languages: C, Perl, shell, sed, awk, PHP.
- Software tools: Subversion, git, CVS, vim, gdb, gcc, crosstool, make, valgrind, automake/autoconf/libtool, LaTeX.
- Platforms/libraries: BSD sockets, SysV IPC, pthreads, Linux system programming, Linux kernel device drivers, gcc cross-compilers, u-boot.
- Microprocessors/Microcontrollers: PowerPC (MPC860, IBM 750), Renesas Tiny H8 300H, Microchip PIC.
- Linux administration: NFS, DNS (BIND, djbdns), NIS/YP, Apache, lighttpd, SMTP (postfix).
- Basic understanding of TCP/UDP, IP, ethernet, switches, routers, firewalls, STP.
- Operating systems: Linux, Nucleus, pSOS, Mac OS X, Solaris, Windows.

## WORK EXPERIENCE

### Software Engineer, 2003 - Present ([MRV Communications, Inc.](#) in Chatsworth, CA)

- Developed applications and Linux kernel drivers in C and assembly for a Motorola PowerPC 860 processor.
- Worked closely with FPGA firmware engineers to solve software and FPGA bugs.
- Managed [Git](#), [Subversion](#), [BitKeeper](#), and [CVS](#) repositories and have migrated repositories between systems.
- Installed and managed [Bugzilla](#) and [Request Tracker](#), wrote a Perl script to migrate database from RT to Bugzilla.
- Used perl to auto-generate Docbook-XML documentation and C code from SNMP MIBs.
- Used Docbook-XML to build revision-control friendly manuals.
- Installed and managed [MediaWiki](#) Wiki for internal notes and documentation.
- Built cross-compilation environment for Motorola PowerPC 860 processor.
- Debugged several hard-to-find memory leaks and race conditions in threaded C code.
- Analyzed and optimized embedded applications, turning an unuseably slow product into a revenue-generating product.

### Software Engineer, 2000 - 2003 (Zuma Networks, Inc in West Hills, CA)

- Developed applications and Linux kernel drivers in C and assembly for an IBM PowerPC 750 system.
- Ported and maintained Linux kernel 2.4 for internally-designed PowerPC board that included PCI bus and custom FPGA, eight channel Ethernet interface, and an IDE interface.
- Involved in designing and writing a new build system for large source tree.
- Involved with setting up IT infrastructure in new company building. Installed, configured, troubleshooted, and maintained Linux and Sun servers, firewalls, backup system, and network hardware.
- Developed [Debian](#)-derived Linux distribution for customers to use on our product.
- Designed, wrote, and documented a library for customers to interface with the router hardware.
- Involved in porting router software from Nucleus to Linux.

### Computer Tech, Jan 1998 - Aug 1999 (Waste Management, Inc in Sun Valley, CA)

- Windows workstations, AS/400, Linux server, and basic phone system maintenance.
- Used Linux and [HylaFAX](#) to implement a network FAX server and a web-based pager gateway application for the Customer Service Representatives, cutting time spent waiting for fax machines and asking secretaries to page sales reps.

## EDUCATION

- Bachelor of Science in Computer Science, California State University, Northridge - May, 2002