

Objective	Employed full-time and not considering other offers.
Professional Qualifications	<ul style="list-style-type: none"> • Three (3) years of product development and test engineering experience (including co-op). • Solid working knowledge of VHDL, Python, Java, C, and related development tools. • Good trouble-shooting and problem solving skills. • Good hardware and software design, verification, and documentation practices. • Master's Thesis on FPGA frame buffer design for H.264/AVC video decoder with fidelity extensions.
Education	<p>Rochester Institute of Technology, Rochester, NY, USA. Master of Science in Computer Engineering, May 2008, GPA: n/a (not computed). Bachelor of Science with High Honors in Computer Engineering, May 2008, GPA: 3.61/4.0.</p>
Technical Skills	<p><i>Hardware Development:</i></p> <ul style="list-style-type: none"> • Digital Logic: VHDL, ASIC, FPGA, RTL, testbench, verification. • Synthesis: RTL, ASIC, FPGA, CPLD, memories, timing-analysis. • Simulation: ModelSim, NC, Xilinx, ghdl, MATLAB, post-synthesis. <p><i>Software Development:</i></p> <ul style="list-style-type: none"> • Embedded: gcc & Make, TI MSP430 microcontrollers. • Application: cross-platform, Object-Oriented, UML, unit test, version management, MFC. • Web: HTML, CSS, XML & XSLT, JavaScript. <p><i>Programming:</i> Assembly, C, C++, UNIX scripting, Java, Perl, Python, VHDL, Emacs Lisp. <i>Office:</i> Windows, Mac OS X, Office software (Word, Excel, PowerPoint, Notes, OpenOffice). <i>Various:</i> L^AT_EX typesetting, GNU/Linux system administration and networking.</p>
Experience	<p>Alstom Signaling <i>Software Engineer</i> West Henrietta, NY, USA 0 months, 2010 – present TBD: embedded software (using C) and FPGA (using VHDL) for carborne equipment that goes on trains</p> <p>IEC Electronics <i>Independent Contractor (Consultant)</i> Newark, NY, USA 3.5 months, 2009 – 2010 Developed Windows-based test fixture software for functional test and environmental stress screening of high-complexity electronics. Comprehension of mixed analog/digital schematics; extensive use of C++, MFC, and laboratory equipment instrumentation.</p> <p>Xelic, Inc. <i>Hardware Development Engineer</i> Pittsford, NY, USA 1 year 2 months, 2007 – 2008 7 months, 2006 – 2007 (<i>Temp</i>) 4 months, 2005 (<i>Co-op</i>) 3 months, 2004 (<i>Co-op</i>) <i>Designed</i> software that verified VHDL core designs for compliance with industry standards. Created automated regression testing that proved core designs defect-free readiness for ASIC/FPGA production. Created RT-Level synthesizable components that met customer specification. Designed behavioral memory models that speedup simulations by several fold and enabled vendor independence by abstraction. <i>Implemented</i> microcontroller-based circuitry and software with hands-on demonstration of product functionality meeting customer requirements for a simple interface and accurate responses. <i>Developed</i> UNIX-based software that wrapped vendor EDA tools into a single automated user interface, improving engineering turn-around time and automating testing processes. Also developed Python-based software that protected product intellectual property by enforcing customer license agreements. <i>Supported</i> team with Linux-based IT services, license management, VCS, VPN, and data backup.</p>

Experience (cont.) **Concord Camera Corp., USA R&D Dep.**

Firmware/Software Engineer Co-op

Hollywood, FL, USA

6 months, 2003

Developed a camera firmware user interface that provided the team with the ability to test filesystem compliance with specifications, guaranteeing detection of data corruption. Trouble-shot C-based firmware defects and provided team with solutions. Created a Perl script that automated insertion of translations into product firmware, preventing the need for manual copy-and-paste. Analyzed camera USB for electrical and protocol compliance with standards, and provided reports on product defects. Created a Python application that efficiently analyzed mass quantities of camera images for quality control by generating statistical reports.

Reconstructed (on-site) the China QA laboratory workstation software installations to enable more efficient and effective camera usage-testing processes. Reconstructed Hong Kong engineering server (Linux) to provide remote usage of Perforce SCM and other IT services.

Trained USA team regarding use of Perforce SCM to version and manage firmware projects across three international offices. Trained one IT staff in use of Linux operating system to enable efficient data exchange between international offices.

Supported engineering offices with Linux-based IT services, license management, and data backup.

Department of Computer Engineering

Teaching Assistant & Mentoring Lab Coordinator

RIT, Rochester, NY, USA

10 months, 2002 – 2003

Managed a tutoring laboratory, including schedules, meetings. Tutored & mentored several students.

Assisted faculty with robot debugging & repair, grading, tutoring, demonstrations, shop work.

Honors/Activities

Eagle Scout Award (2000), Starred in *NY Expeditions* PBS television series (2001).
Community service via the local church.