**Objective**

A full time position as a software developer for embedded systems.

**Qualification**

**Rochester Institute of Technology**  
 Rochester, NY | Sep 2004 – Aug 2009  
Major: **Computer Engineering** with a minor in **Electrical Engineering** GPA: **3.3** | Professional Field Of Study (PFOS) GPA: **3.4**

**Employment Experience**

**Harris RF Communications Division – Rochester**

Rochester, NY | Dec 2008 – Mar 2009

Position: College Student Software Engineer

* Developed Qualification Test procedures for the requirements and functionality testing of the Harris Falcon III Manpack Radio.
* Assisted field test demos of on-air testing to customers and Harris engineering departments.
* Designed and developed software for the automated testing of Falcon III TCP Acceleration functionality to demonstrate performance gains in TCP network traffic over Satellite network links.

**Lockheed Martin Systems Integration – Owego** Owego, NY | Mar 2008 - May 2008

Position: College Student Technical Specialist

* Tester equipment engineer; designed test equipment for Lockheed displays and control equipment contract work.
* Designed test equipment hardware for the purpose of testing multiple SBC units through serial channels, discrete I/O interfaces, and the running of power transient errors testing.
* Diagnosed test equipment problems as they appeared in Production Test departments.
* Assembled and certified test equipment racks for use in production testing.

**Lockheed Martin Systems Integration – Owego** Owego, NY | Sep 2007 - Nov 2007

Position: College Student Technical Specialist

* Diagnostics engineer to test production hardware. Diagnosed board faults as they were produced in Product Test department.
* Performed multiple environmental and safety tests including Electric Shock, Vibration, and Salt Fog testing.
* Performed extensive requirements tracing to the completed tests and documented design.

**Savant Systems LLC**  
 Cape Cod, MA | Mar 2007 - May 2007

Position: Firmware Developer

* Developed diagnostic software for commercial audio/video switching technology.
* Designed, implemented, and tested ucLinux software.
* Modified the ucLinux kernel to tailor to ROSIE operational software.

**Lockheed Martin Systems Integration – Owego** Owego, NY | Jun 2006 - Nov 2006

Position: College Student Tech Sr.

* Designed, Developed, and Tested embedded software for a tactical systems device for the Merlin UK Helicopter.
* Performed multiple proof-of-concept works to improve the quality of the team effort to develop embedded software for the TMC.
* Lead design and development of multiple facets of Merlin UK Helicopter tactical systems Operational Software.

**Projects**

* Designed, prototyped, built, and tested the electronic components, firmware, and x86 PC cross-platform GUI client software for the Robotic Platform remote controlled intelligent robotic vehicle. Development was for the RIT Multiplidisciplinary Senior Design RP1 project group of six engineers working with another group of mechanical engineers. Group management, design, cost analysis and production were some of the team responsibilities.
* Researched the Wallflower Background Subtraction algorithm for image and video processing and improved upon the algorithm for use in real-time embedded systems applications.
* Developed PID controller for the RIT Robotics Club AMOS autonomous robot, used annually in the IGVC challenge held in Rochester.
* Designed and developed a heartbeat monitor using analog IR sensors, the Freescale HC12 microcontroller to demonstrate the importance of active analog filtering in conjunction with digital signal processing systems.
* Designed a full custom 16bit Full Adder with Build-In-Self-Test (BIST) circuitry using 0.35um Static and Dynamic CMOS technology.
* Designed and developed a client/server TFTP service with Name Server service for multi-client identification using Java.
* Designed a fully functional cross-platform AOL Instant Messenger client ground-up using the binary communication protocol documentation available online.
* Designed and developed a multi-threaded operating system with POSIX-style Command Line Interface (CLI) ground-up on the Atmel ATmega128 microcontroller using C ANSI libraries provided with the GNU GCC package and AVR extension.
* Designed and developed an Expert System in a LISP deviant language named JESS in order to control atmospheric qualities in a mid-sized office building.

**Skills**

**Information Technology**

* Familiar with the OSI networking paradigm and have developed numerous network applications for both the utilization of common network code and the robust testing of new network code for Wireless and Satellite communication.
* Developed networking applications which require the intimate knowledge of TCP and UDP session layer protocols and the writing and diagnostics of software for the network stack in QNX.
* Developed low-level network code for communication between a microcontroller and an on-board Ethernet PHY chip on uCLinux in an embedded system platform.

**Software Engineering**

* Proficient in C, C++, C#, PHP, Java, Visual Basic and all VB scripting language variants, LISP/Scheme, VHDL, with familiarity with Perl, Python, MATLAB, and SQL syntax.
* Skilled in all Windows, Linux, and Unix operating systems and distributions (of Linux) and have developed software for WindRiver VcWorks, GreenHills INTEGRITY, uCLinux, and QNX Real-Time Operating Systems.
* Developed video and image processing and manipulation software using OpenCV image and video processing libraries extensively and have developed numerous video and image processing applications for testing and embedded systems use.
* Developed video and image processing test code in MATLAB.

**Electrical Engineering**

* Taken numerous courses in embedded systems design and control systems design and utilized the theoretical aspects of these courses to design systems for a large-scale Robotic Platform project as part of a Computer Engineering Senior Design Project.
* Taken numerous Signal Processing courses including Communication Systems Design addressing the mathematical models of Analog and Digital AM/FM Wireless communication and electrical systems implementations of these principles.