

## **Objective**

A professional job upon graduation involving low-level software development or digital hardware development for embedded systems in an enthusiastic work environment.

## **Education**

### **University of Wisconsin – Madison**

- BS Computer Engineering, expected May 2009
- Overall GPA: 3.12
- Major GPA: 3.3
- James Zaleski Engineering Scholarship
- Birdman Formula SAE Scholarship

### **Mary D. Bradford High School, Kenosha, WI**

- Overall GPA: 3.8/4.0

## **Experience**

### **General Motors, Milford, MI**

#### **R&D Intern, 5/2008 – 8/2008**

- Created a fully automated dSPACE bench test for hybrid controller's HWIO interface using Hardware In the Loop (HIL) testing.
- Develop a method to fully automate testing major functions of the hybrid controller and software under test using a simulated 20 minute test with Matlab post-processing for data analysis and pass/fail results.

### **GE Healthcare, Madison, WI**

#### **R&D Co-op, 1/2007 – 8/2007**

- Used Six Sigma process to develop upper and lower limits for production test on batteries.
- Assisted in RoHS conversion of existing printed circuit assemblies.
- Significantly simplified and rebuilt test fixture for alarm faults on an electronic gas mixer with SMD components.

### **Internet Scout Project, Madison, WI**

#### **Technical Specialist, 9/2005 – 12/2006, 8/2007-5/2008, 9/2008-Current**

- Oversee day-to-day administration on Linux and Mac OS X servers running multiple websites, databases and mail servers.
- Deploy and maintain workstations, also developed software on current projects.

### **UW Madison Formula SAE Racing Team, Madison, WI**

#### **Electrical Designer, 1/2006-Present**

- Designed a microcontroller and LCD into a steering wheel relaying a number of button inputs and engine data to and from the wheel using CAN.
- Oversaw development and offered guidance for development of another microcontroller circuit responsible for power monitoring.
- Working to build an integrated data acquisition system with remote wireless telemetry by relaying CAN traffic based around a TMS320F28235 digital signal controller running DSP/BIOS real time operating system.

#### **Electrical Group Leader, 1/2007-8/2008**

- Responsible for all electrical components on Formula SAE racecar.
- Manage and educate new team members about electronics and assist them with projects.
- Meet with other group leaders to decide how car is to be built and tested.
- Programmed back-end of team website as well as maintenance.
- Implemented a remote server version control system, which holds all critical team data with full history.

***Wiring System Designer and Builder***, 9/2004-8/2008

- Designed, documented, and built complete wiring system.
- Managed sponsor relationships and coordinated delivery of supplies for system.
- Troubleshoot electrical and engine management problems.

**Gentoo Linux**

***Linux Systems Administrator and Developer***, 2001-2003

- Started and maintained Gentoo Linux community forums. <http://forums.gentoo.org>
- Tweak and optimize web and database server that served ~44 million hits a month.
- Updated and main several networking packages for the Gentoo Linux distribution.

***Skills and Interests***

- **Computer Skills:** Linux server administration (http, smtp, pop3, imap, dns, dhcp, rsync, ftp, ssh, nfs), general network administration, Apache, PHP, MySQL, NIS, Open Directory, Kerberos, OpenLDAP, Samba, Postfix, BIND, Iptables, Xen Virtualization, Vmware, Subversion, Dreamweaver.
- **Automotive Skills:** Frame off restoration, engine rebuild, suspension rebuild and fabrication, modern fuel injected engine swap in to an old car, electrical, drive train, hydraulic brake system. <http://www.2bluesc.com>
- **Computer Engineering Skills:** Microcontrollers (AVR, Cortex-M3, TMS320F28xx) . Peripherals used: SPI, ADC, Timers/Counters, CAN, watchdog, BOD, and UART. Schematic and PCB layout with Eagle, SMD soldering, experience with CAN 2.0B, XBee, LCD interfacing and automotive rated circuit boards, dSPACE Control Desk, ETAS INCA, Matlab, C programming.

***Accomplishments and Activities***

- Dean's Honor List
- UW Madison Formula SAE racing team member – 2004-Present
- UW Madison EPICS member – 2004
- National Honor Society Member – 2001-Present
- Complete frame off restoration and engine swap on my 1986 Pontiac Fiero GT.