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Objective

C/C++ programmer for embedded system with emphasis on hardware/software interface.

Summary

Software engineer with over 12 years of professional experience. Strong points include low-level hardware/software interface on embedded systems; real-time control software at speeds in the tens of microseconds; web-based human-machine interfaces; PC-based simulation and test fixtures; understanding of circuit design, schematics, and prototype bread boarding; implementation of serial communication interfaces; and assembly to C start-up code.

Experience

- September 2008 to January 2009 Contract Software Engineer, *Rockwell-Collins, Inc.*, Cedar Rapids, IA
- Primarily involved with low-level development (calibration, hardware self-check, ext.)
 - Developed PC-Based verification and debugging tool to monitor ARINC communication
 - Coding standards required to comply to DO-178B
- February 2008 to May 2008 Contract Software Engineer, *Sound Devices, LLC.*, Reedsburg, WI
- Assisted in development and debugging of professional 8-channel digital audio recorder
- June 2006 to present Contract Software Engineer, *Peaker Services, Inc.*, Brighton, MI and *Aerotek, Inc.*, Hanover, MD
- Provide support for installed DigiCon equipment
- November 2000 to March 2006 Contract Software Engineer, *DigiCon, Inc.* (no longer in operation)
- Wrote all C and assembly software for DSP based controllers
 - Implemented PID and PLL control loops, and CANbus networking
 - Developed and implemented a web-based human-machine interface (HMI)
 - Created PC-104 based simulator used in development, testing and troubleshooting
 - Made custom GNU/Linux build that booted in under 30 seconds
 - Implemented real-time bandpass filtering utilizing MIT developed Fourier transform libraries
 - Developed software that was ported from Windows XP Embedded to GNU/Linux with minimal change required
- December 1996 to September 2001 Software Engineer, *Electro Cam, Corp.*, Roscoe, IL
- Coordinated software tests performed on all builds of production software
 - Wrote software for a PC-based test used for production component testing
 - Designed hardware and Pascal software for PC-based test fixture with a variety of functions
 - Developed production test software used in assembly verification and troubleshooting
 - Provided technical support for advanced customer issues
 - “Communications Expert” for issue related to serial communication

Education

- Fall 2006 to present University of Wisconsin, Rock County
- M.S. in computer science expected in 2014
 - B.S. in computer science and mathematics expected in 2013
 - Associate of Arts and Science from UW Rock County, 2009

Computer Abilities

Languages: C/C++, Pascal, x86 assembly, ladder logic, PHP, Perl, Java, SQL, Javascript (including AJAX), XHTML/HTML, CSS

Processor familiarity include: NEC V25, TI TMS320C24x, Motorola ColdFire, Intel i386, Analog Devices Blackfin, IBM PowerPC

Operating systems for embedded devices: GNU/Linux (Debian), Windows 2000, Windows XP Embedded

Notable software experience: Configuring and compiling LAMP (Linux, Apache, MySQL, PHP) systems, GCC (GNU compiler), Samba, SSH, Subversion, Eclipse

References available on request