**Mr. Travis C. Wolter**

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**OBJECTIVE**

I am currently seeking a position in the Computer Engineering field. Most of my experience involves real time embedded software development and support; however, I have some experience with Windows desktop software as well. I want to learn new technology and put it to use. I would prefer a full-time permanent position, but I will certainly consider contract work as well. I am willing to relocate.

**QUALIFICATIONS**

* 10+ years of experience developing real time embedded software in C and C++, along with some experience with C#
* Extensive experience writing and enhancing tools and scripts for build and test automation in Perl, batch, csh/sh/bash, Groovy, and VB.
* Worked on all phases of the software life cycle: requirements specifications, design, coding, test – documenting and reviewing everything along the way
* Followed development process according to SEI CMM, mostly Level 3
* 10+ years of experience debugging embedded C/C++ software using: gdb, JTAG, logic analyzers, simulators, emulators
* Experience with server administration
* 10+ years of experience developing embedded software where code size, data size, execution cycles, and preemption where all critical factors.
* 10+ years developing software on Solaris systems cross compiled for embedded products; 1 year on Linux systems cross compiled for embedded products
* 8+ years Software Configuration Management experience including: tracking change requests / problem reports, managing risk, resolving merge conflicts, dealing with multiple concurrent products and release lines for the same product; running and testing daily builds, running static analysis, and gathering metrics data
* Was instrumental in the formation and successful function of an entire SCM team; trained several people in SCM practices/procedures over the years
* Extensive experience writing Perl and shell scripts for task automation
* Familiarity with interrupts, ISRs, Registers, Stack Pointers, heap vs. stack memory tradeoffs, PWM, GPIO
* Familiar with network applications such as FTP, Telnet, RSH, and SSH.
* Exposure to Bluetooth, BT profiles, and BT Low Energy along with USB and SPI,
* Exposure to NAND and NOR memory
* Familiar with GSM and 3G wireless protocols
* Familiar with security concerns – both protection of sensitive data as well as protection of the software/device as a whole.
* I am a team player. I enjoy collaborating so everyone wins.
* Experience working with people on other teams on- and off-shore

**EDUCATION**

Milwaukee School of Engineering – Milwaukee, WI

**Degree:** Bachelor of Science

**Major:** Computer Engineering

**Continuing Education:**

Massachusetts Institute of Technology

Internet of Things: Roadmap to a Connected World – June 2018

Cybersecurity: Technology, Application and Policy – June 2018

**COMPUTER EXPERIENCE**

Embedded C / C++ / C#, Perl, Groovy, Python, Unix shell scripts, Make files, Assembly, some Visual Basic, some VB Script, some Java, some HTML, PowerShell; Jenkins administration, Rational Team Concert, Clearcase, Git, Subversion, Jira, Gerrit, GDB, Eclipse, Visual Studio, Word, Excel, OneNote, Emacs; Unix (Solaris), Linux, Android, Windows 3.1 – 10

**EXPERIENCE**

**Randstad Engineering Solutions** – Fort Lauderdale, FL & remote (Contract Assignment)

Embedded Software Engineer

February 2020 – June 2020 (Project #2)

* Worked with client BAE, a large aerospace company, that was also working with other partner companies on a military project.
* Role was to, along with other Randstad team members, reverse engineer prototype Operating System code for an engine control system and then document software detailed design and low level software requirements. The system involved multiple ECUs controlling separate functional areas as well as redundant ECUs for safety, all communicating with each other and the cockpit over various networks.
* The software was written in C and required development to DO178C Level A standards.
* Used Microsoft Word to document detailed design.
* Used PlantUML to construct diagrams to place in the design documentation.
* Used IBM Rational DOORs to store requirements and tracing.
* Used Microsoft Visual Studio Code for examination / editing of C and PlantUML code.
* Used GIT for software version control.

April 2019 – January 2020 (Project #1)

* Worked with client Gentex, an automotive parts/systems supplier, to add video recording and storage to one of their infotainment products.
* Developed software in C on daily basis
* Learned about H264 video compression and MP4 media container files.
* Used Unity and CMock for Test Driven Development and significantly improved unit testing skills.
* Used Subversion for software version control.
* Used Visual Studio running on Windows 10 for software development and then used command line tools to cross compile for target proprietary OS and also execute unit tests, perform static analysis, and ensure MISRA C compliance.
* Used SmartBear Collaborator to participate in code reviews.

**Morley Companies** – Saginaw, MI

Customer Service Representative – Level 2

July 2018 – February 2019

* Worked on behalf of a large automaker client to address customer concerns.
* Worked with customers, dealers, and other internal resources to get vehicles repaired to customers’ satisfaction while balancing business goals.
* Enhanced skills in time management, people interaction and information exchange.

**Volvo Trucks** – Greensboro, NC (Contract Assignment)

Software Configuration Management Engineer

November 2016 – May 2017

* Prepared embedded software configurations for vehicles under test based upon feature options specified for the given vehicle and the available software versions.
* Learned about vehicle electrical architecture, electronic control units, and the network buses which connect them.
* Participated in discussions to improve testing of embedded software and hardware.
* Learned about some of the factors important to fleet owners, truck drivers, and about how trucks need to be built according to specific applications.
* Performed some Perl scripting to automate certain aspects of my work.
* Some exposure to the use of CAN and LIN busses.

**GE Aviation** – Grand Rapids, MI (Contract Assignment)

Build Engineer

June 2015 – June 2016

* Worked on a large new Flight Management System project in an Agile Scrum environment; supported a multi-state, multi-national team of ~200 engineers.
* Maintained a Jenkins automated build environment, with code stored in Rational Team Concert (RTC).
* Wrote build script and a number of utilities in Perl, updating on continuous basis. Also wrote scripts in Groovy and VBscript.
* Added Jenkins build slave machines, adding functionality to scripts for client-server communications, and also working with IT department to configure networks and firewalls.
* Generated software release documentation.
* Performed some administrative functions in RTC.
* Deployed a common, version-controlled build process and associated tools. Performed updates as requirements / tools evolved.
* Proactively re-evaluated tools and processes to increase efficiency and prevent downtime. Analyzed needs and recommended hardware upgrades.
* Contributed to the implementation of a continuous test process and system (helped to gather requirements, draw out system design, and implement some tools in Perl)
* Maintained automated test procedures, written in Visual Basic.
* Found defects in embedded software and worked with software developers towards resolution.
* Learned some of the fundamentals concerning the development of DO-178B safety-critical software and FAA Certification; exposure to Ada 2005 programming language.

**Hill-Rom** – Batesville, IN (Contract Assignment)

Engineering Technical Consultant

May 2014 – December 2014

* Tested an Android-based mobile application and provided bug reports and enhancement ideas to the developer. The overall system used RFID, Wi-Fi, and mobile data simultaneously for different data channels.
* Wrote test plan, executed test procedures, and documented results.
* Learned some of the rules and regulations governing the healthcare industry.
* Gathered requirements for a wireless accelerometer for an internal research project to detect patient positioning and selected one off-the-shelf which best met those requirements.
* Designed and wrote a Windows application in C#/.NET to control the accelerometer via Bluetooth 2.0 (researched use of BT 4.0/BLE) and display the data graphically and then made significant revisions based on usage observations and feedback from management and coworkers.
* Learned Python and Raspberry Pi for use in a teambuilding project.
* Designed both of the C# and Python applications for scalability and enhancement so that requirement changes and feature enhancements were much easier to implement.

**Motorola Mobility** – Libertyville, IL (Contract Assignment)
Modem Integration / Test Engineer
June 2012 – March 2013

* Diagnosed and fixed problems related to the integration of third party embedded software in Android smartphones.
* Debugged and developed some solutions in embedded C++.
* Experience in Unix/Linux commands
* Experience with TestCentral Test Plan/Procedure Repository/Management tool
* Experience with JIRA defect tracking tool
* Performed C++ and Java code reviews with Gerrit tool
* Experience with GIT version control
* Experience with Jenkins continuous integration
- Submitted software changes automatically built in next release
- Used archived releases to narrow down origin of defects discovered
* Participated in product-level triage meetings to direct issues found to proper software groups.
* Worked on troubleshooting and performing root cause analysis on issues found by automated System Test and reported during User Trial.
* Gleaned information from debug logs without the aid of having most of the source code.
* Tested smartphones to verify features worked as designed.
* Performed manual and automated regression testing.
* Debugged automated testing environment.
* Gained knowledge of Android API, framework, and Android App Development
* Modified internal Java test app / participated in java code reviews

**Motorola** – Libertyville, IL
Sr. Software Engineer
June 1998 – January 2009

* Developed real-time, embedded multi-process / multithreaded C/C++ software for cell phones.
* Gathered and documented requirements specifications.
* Generated high and low level design documentation.
* Populated requirement / test traceability matrices
* Followed process to document component’s API in code. Supported and executed tool that then automatically generated the API specification document.
* Used Clearcase for version control and became advocate for proper branching / labeling strategies.
* Worked on nearly every level of the software stack: UI, middle-layer service providers, time/date clock, SMS, non-volatile memory storage, database management, flexible configuration, display driver, keypad driver, factory test interface, battery management, bootloader.
* Keypad management service provider (Last six months at Motorola)
- Added profiles so keypad operated according to active app (Requirements – Unit Test)
- Added support for Capacitive Touch (Requirements – Unit Test)
- Performed extensive cleanup of existing code (Design – Unit Test)
- Provided leadership to 2 other coworkers developing related features in the areas of architecture and code reusability.
* Component Build Engineer / Configuration Management (7+ years total)
- Performed daily builds, sanity test, collaborated with others to decide which change requests to include in particular builds, ensured change requests were propagated to all appropriate products, merged change requests affecting common files / functions, maintained 3 – 4 separate simultaneous products / build lines
- Periodically re-evaluated sanity and system test case suites
- Wrote / updated a number of helper scripts over years in Perl / shell script
- Lead a group of three new graduates, training them in BE/SCM and gave them daily direction
- Trained 5 other seasoned engineers in BE/SCM over the course of five years
- Completely won over a new supervisor who thought he was going to overhaul the practices of our BE/SCM team
* Helped found super-component BE/SCM team critical to company success
- Became leader of the team by experience, listening to others, and a lot of hard work
* Flash data storage manager maintenance (6+ years, part time, Design – Unit Test)
- Allocated storage space for application data as requested, periodically making memory map updates
- Maintained proprietary databases
- Collaborated on design / coding of proprietary critical data storage manager
- Collaborated on design / coding of encrypted data storage
* Clock management service provider (1999, ongoing maintenance since then)
- Developed clock manager from Requirements through Unit Test (time of day / date, alarms, timers, wake phone alarms)
- Collaborated on design / coding of time zone / daylight savings time support
- Collaborated on design with app developers for their time-related feature development
* Gained exposure to Bluetooth and USB as a result of being ‘rented out’ to connectivity component as Build / Configuration Management engineer for several months. Gained some exposure to various Bluetooth profiles over the years.
* Added flip event handling to various apps and the UI dialog manager to support a new type of hardware form factor (Req. – Test)
* Added several factory test command handlers, clock and phonebook related (Req. – Test)
* Worked on a number of defects through years related to phone data reset
* Worked on power up / down sequencing issues
* Wrote phone-side software for a PC Application to retrieve data from the various malfunctioning phones returned to the customer service centers (6 months, Req. – Test)
* Worked on integration of a third-party call control engine to support a prepaid service provider.
* Wrote code to expand call log feature (Req. – Test)
* Collaborated on design / coding of a manager for shared storage space for data sets which had previously been allocated a fixed amount of storage space.
* Added display support to bootloader of dual processor phone for software update, which also involved retrieving data from co-processor.
* Collaborated on design changes to move bootloader from external flash to internal ROM
* Debugged issues related to voice recognition app, battery meter app, display / keypad backlights,
* Redefined what happens when battery saving mode is turned on.(early example of collaboration on requirements with hardware and system engineers and technical marketing)

**AVAILABILITY**

Available for immediate full time employment

**REFERENCES**

Available upon request