Brian Jarvis   **Embedded Software and Digital Design Engineer**
Email: bdjarvis@gmail.com   Phone: 757-333-0309

Summary

Versatile embedded systems, software, and digital design engineer with over 8 years experience in conceptualization and development of FPGA, Microprocessor and DSP based systems, low-level driver solutions, and high performance algorithm implementations. Skill set emphasis in embedded systems design, TCP/IP network programming, FPGA development, software-hardware codesign, and high performance implementations of digital signal processing algorithms.
Active TS/SCI Security Clearance.

Skill Set

Operating Systems: Linux, Unix, Solaris, Windows, VxWorks, uCOS, Timesys, MontaVista
Programming Languages: Python, C, C++, MATLAB, Java, Assembly, Perl, Unix Shell
Embedded/Microcontrollers: Motorola 68 family, PIC 18, ARM7, Gumstix, Rabbit, TI MSP430, Arduino
DSP: Analog Devices Blackfin, SHARC, ADSP-2181, TI Keystone II
FPGA: VHDL, Xilinx ISE and Vivado, ModelSim, MicroBlaze, Zync
Linux and VxWorks Driver development

Recent Work History

2012 - Present   Embedded Software Engineer
Azure Summit Technology, Fairfax, VA

- Implement signal processing algorithms on low-resource target machines
- Design real-time embedded systems for SIGINT applications
- FPGA development for software defined radios

Selection of Recent Program Achievements:

- Developed interference cancellation system using various signal processing algorithms (LMS, RLS, SER) to process data from Universal Software Radio Peripheral (USRP). Software in C++ and Python.
- Re-architected direction finding and geolocation system for unified software baseline across many programs. Software in Python.

2006 - 2012   Real Time Software Engineer
Argon ST, a wholly owned subsidiary of The Boeing Company, Fairfax, VA

- Design, develop and integrate real-time embedded systems
- Quickly develop high quality code for rapid prototyping and quick turnaround projects.

Selection of Program Achievements:

- Developed a high-speed Ethernet-based interface for a software defined radio. Software work included a multi-threaded VxWorks application written in C to interface with FPGA and network, data delivery application written in C, and network management application written in C to advertise available FPGA resources to network consumers using multicast.
- Developed an Analog Devices Blackfin DSP-based application to interface with FPGA, decode GPS data, and solve for user position. FPGA driver written in C, multi-threaded GPS application written in C++.

Education

2013-2015 (expected)   George Mason University, Fairfax, VA
Master of Science in Computer Engineering   GPA: 3.92

2002-2006   Vanderbilt University, Nashville, TN
Bachelor of Engineering in Computer Engineering   GPA: 3.481