

BRIAN E CLOUGH

Embedded Firmware Engineer

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OBJECTIVE: Firmware Engineer, developing embedded programs for consumer electronics or avionics.

EXPERIENCE: Keil Software, Plano TX, 2003 - Present

- Answer questions from customers, including NASA, Apple Computer, General Electric, and Rockwell Collins, regarding the usage and capabilities of Keil's firmware development tools
- Devise example programs for 8051 and ARM processors, from manufacturers such as Atmel, Philips/NXP, Silicon Laboratories, ST Micro, and TI
- Document answers to common questions in Keil's online knowledge base
- Assist the Keil sales department, by describing product features to potential customers
- Interface with the Keil engineering department, when someone discovers a fault in one of our products, helping them find and fix the issue quickly

Phoenix Technologies, Norwood, MA, 1996 – 2001

- Debugged, and developed new features for, Phoenix's industry leading system firmware products
- Programmed various Pentium class systems, including NCR servers, commercial desktop systems for HP, and laptop systems in Compaq's Armada line
- Traveled to customer sites to work closely with hardware developers Customized existing code to support the customer hardware, and wrote code to provide new features requested by the customer
- Worked with various development tools, including source control, custom build scripts, software debuggers and in circuit emulators
- Designed and coded a full SMBIOS implementation for an incomplete BIOS project
- Wrote BIOS code primarily in Assembly (MASM) and tools in C
- Developed and debugged device drivers (video) for the NetBSD OS
- Wrote NetBSD test applications in Gnu C
- Implemented a full FAT32 file system for an incomplete OS project

Lockheed Martin Control Systems, Johnson City, NY, 1993 – 1995

- Wrote embedded operating program code for a fly-by-wire aircraft control system, this system is now flying on over 50 SAAB2000 aircraft in Europe and the US
- Programmed embedded Intel 8051 and Motorola 68HC11 microcontrollers
- Implemented real time I/O, preflight test, and control law calculation functions Educated other project engineers, on the subject of software development
- Coded, built and debugged software, throughout the development cycle of the project
- Integrated customer-specified changes into the program
- Oversaw the FAA certification program for the system software

EDUCATION: State University Of New York Institute Of Technology At Utica/Rome

- Bachelor of Science Degree, 1993
- Major in Computer & Information Science

MILITARY: Sergeant, U.S. Air Force 1985 – 1990

- Worked as a Heavy Transport Aircraft Maintenance Specialist
- Served two years overseas

OTHER SKILLS: HTML, JavaScript, Pascal, MS Windows API