Keith Sutton

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Summary:

- **22 Years** experience in software design, implementation and testing
- Experience in C, C++, RTOS, Linux, Windows
- Experience in implementing testing tools and testing methodologies

Experience:

November 2002 to Present
Sierra Design Group / Bally Technologies / Scientific Games, Reno, NV
Senior Firmware Engineer

- Responsible for development of slot machine games for the gaming industry
- Development environment C++ on an embedded Linux platform, using SlickEdit, CrossVC, and TestTrack tools
- Using a Math PAR Sheet, reel strip definitions, graphics files, animation files and sound files to ultimately complete a game
- Games could be video reel or stepper motor reel, games controlled thermal ticket printers, cash readers, and other peripherals via communication protocols
- Monitored and contributed to the entire process from software development, Quality Assurance and Testing, to GLI regulatory approval

December 2000 to August 2002
Calix Networks, Petaluma CA
Lead Integration Engineer
Responsibilities include all phases of software and hardware integration for a
Telecommunications Access Node

- Developed test plans and test cases for DSn and OCn line cards
- Created automated TCL and PERL test scripts for testing of equipment and facility provisioning, cross-connects, performance monitoring, and alarm reporting
- Created TL1 scripts for control-plane simulation and testing prior to hardware availability
- Performed hardware/software system integration and data-plane testing using OmniBer, TBerd, and AdTech test equipment
- Developed software for a Test Access and Alarm Display Unit, including ISRs, boot code, and application code

July 2000 to December 2000
Texas Instruments, Santa Rosa CA
Software Engineer
Responsibilities include developing real-time embedded software for wireless communications
products

- Co-developed embedded software for an Ethernet bridge card
- Implemented a utility to capture 802.3 packets from Linux kernel space. Packet headers were modified, and packets subsequently written to an FPGA controller for an 802.11 wireless interface card
- Developed a boot loader, message protocol, and command processor for an ARM based 802.11 wireless access point

June 1997 to July 2000
Hewlett-Packard / Agilent Technologies, Santa Rosa CA
R&D Software Engineer
Developed real-time embedded software for the HP/Agilent ESG Signal Generator family
- Designed an Object-Oriented architecture for Power and Frequency control for Agilent's next generation Microwave Signal Generators
- Developed a file system for an Arbitrary Waveform Generator
- Developed a configuration manager for identification and provisioning of combinations of hardware that could be present in an instrument
- Developed front panel and remote user interfaces to support new features and operations
- Worked with RF Hardware Engineers to develop and implement control and calibration algorithms for various circuits
- Interfaced with Manufacturing Engineers in order to ensure a smooth transition from development to production
- Developed a PC-based application used to install new versions of firmware into customer instruments

Education:

University of Nevada, Reno
Bachelor of Science, Computer Science
Graduated May 1997
GPA 3.97

Course Work:

· Computer Architecture	· Data Structures
· Software Engineering	· Object-Oriented Software Development
· Operating Systems	· Microprocessors
· Computer Algorithms	· Real-time Operating Systems
· Parallel Computing	· Computer Graphics

Stanford University
Graduate Program
For Continuing Education

Course Work:

· Parallel Computer Architecture	· Advanced Topics in Operating Systems

Technical Knowledge:

Languages:	C, C++, XML, Perl
Operating Systems:	LINUX, HP/UX, pSOS, Windows, DOS
Applications:	GCC, GDB, Integrated Systems Development Environment, PVCS, TI Code Composer Studio, IAR Embedded Workbench, Green Hills Integrated Development Environment, ClearCase