

DAVID SMITH

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Proven Professional With Successful Experience In Embedded Software Engineering

SUMMARY OF QUALIFICATIONS

- 10+ years' experience in Software Engineering with expertise in embedded design and programming, testing and development, and innovative research and development.
- Dedicated, hard working individual with the interpersonal communications skills to work at all levels of the organization.
- Exceptional skills and experience in software architectural design, IC design engineering, and developing software tools for chip diagnostics and configuration.
- Works well in teams or individually to achieve goals and objectives.

COMPUTER SKILLS

Programming Languages: C/C++, UML, Java, Perl, HTML, Microsoft Visual Basic, Microsoft MFC, Assembly for x86, ARM and MIPS Processors, Fortran, and Pascal.

Operating Systems: Windows 95/98/2000/CE, Linux, Solaris, VxWorks, and OSE.

Network Servers and Workstations: Windows NT, Windows 2000, Sun Solaris, and Red Hat Linux.

Network Protocols and Hardware: TCP/IP, UDP, ARP, ICMP, NAT, ICMP, HTTP, TFTP, DHCP, PPPoE, and IPsec.

Database Tools: Microsoft ODBC, SOL, and Borland Jet.

Development Tools: Microsoft C/C++, Microsoft Visual Basic, ARM Development Suite, GNU tools, MS Assembler, Borland C/C++, JBuilder, and J2EE.

Project Management Tools: Microsoft Project.

General Software: Rational Rose and Microsoft Office.

PROFESSIONAL EXPERIENCE

MICREL, INC., San Jose, CA

10/00 – Present

Senior Software Engineer. Responsible for working with IC Design engineering and embedded programming technology. Employee of the Quarter in 2002.

- Project leader for the KS8695, KS8723, 10/100 Mbps LAN Switch SOC product line. Worked as part of the IC design engineering team to develop both the bring up and validation plans. Provided software tools to test IC and on-chip hardware resources in relation to functionality. Worked closely with design engineers to provide software for chip simulation and verification during the design phase. Provided additional software tools to perform board bring ups and debugging.
- Ported an embedded OS (such as Linux, Windows CE, and VxWorks) to the ARM processor that was based on SOC. Developed device drivers for the KS8696P SOC that would support the UART, timer, DMA, flash memory, and miniPCI/PCI devices (such as 802.11a/b/g mini-PCI cards. Provided BSP for the ARM Linux porting and diagnostics tools as well as customer support.
- Developed a SOHO router software package that included a firewall, web server, TCP/IP stack, and other applications. This package was based on the company's SOC products and was responsible for providing technical support for local and overseas customers.
- Performed system software integration and debugging for a layer 3 switch and SOHO router software package. Utilized TCP/IP, UDP, ARP, ICMP, NAT, and Ipsec.
- Part of a team to develop a 10G switch to provide a Linux OS porting that was based on an IDT MIPS processor.

PROFESSIONAL EXPERIENCE (Continued)**ESS TECHNOLOGY, INC.**, Fremont, CA

11/95 – 10/00

Senior Software Engineer. Responsible for developing packages, systems, and product lines for the company.

- Implemented an ADPCM speech code consisting of G.721, G.723, and G.726 that was utilized in voice recording on the ESS 4208 and ESS3207 DSP chip. Responsibilities also included implementing perceptual audio coding for MPEG2 AAC on the same chipset. Optimized an 8-segment equalizer DSP code for all ESS SVCD products.
- Team lead on a Stanford project involving software architectural design and OS customization. Key elements included a command interpreter, UART driver, remote control device driver, and flash memory device driver. Customized an SVGA BIOS for a TV display and encoder and designed and implemented a communications protocol on the both the ESS 2408-host port and ISAS bus. This new system ran on Microsoft Windows CE.
- Developed a GUI and video capturing software for the ESS TeleRack and videophone projects that were based on Microsoft TAPI. Designed and implemented the GUI and customer controls for the ESS AudioRack software.
- Responsible for implementing the V.80 for the ESS modem project. Developed a communications engine for video over a telephone line based on the H.324 standard and also implemented Microsoft SPI voice over data for the ESS modem products.
- Developed GUI for a variety of ESS products utilizing Microsoft Visual C/C++, MFC, OLE2. MS Windows Multimedia API, MS Video for Windows, and SDK.

Creative Technology Ltd.**Creative Labs, Inc.**, Singapore and Miltipas, CA

11/93 – 11/95

Software Development Engineer. Responsible for the design and development of software packages and products.

- Developed a Windows 95 and NT GDI hook API for the Sharevision PC 3100 that also included application sharing capabilities. Other improvements to this PC included a System API development, communications engine based on creative proprietary protocols, and answer and fax machine software that was based on IBM MWAVE technology.
- Responsible for GUI design and development for a CD-Recordable product for Creative Labs, Inc.

EDUCATION

ASIAN INSTITUTE OF TECHNOLOGY, Thailand

Master of Engineering in Computer Science.

KUNMING INSTITUTE OF TECHNOLOGY, China

Bachelor of Engineering In Electrical Engineering.

References Available Upon Request