

Jeffrey D. Smith

Summary

I have thirty years experience in the software industry with concentration in the development of industrial strength software products. **Team leader** of software engineers in every phase of software development. I have **senior management experience** in a software vendor company, and excellent **business negotiation skills**. I have extensive experience in customer and in-house employee education.

Skills

Java and C application and systems development, Java GUI/Swing multi-threaded, XML (JAXP) programming, Java/C TCP/IP multi-threaded data streams. Extensive assembly language (ALC) and C language product development for IBM mainframe operating systems OS/390 and z/OS using 31-bit and 64-bit addressing, data spaces, space switching Program Call (PC) routines, Functional Recovery Routines (FRR), ESTAE and ESTAI recovery routines, TCB and SRB concurrent programming, system locks, TCP/IP in Java and C languages, JCL, CLIST, REXX. Experience in RACF (RACROUTE) and ICSF API usage, ISPF, IPCS dump reading, GRS ENQ/DEQ and Latch Manager, data compression (CMPSC), and high speed data encryption algorithm (DES) development. Extensive experience developing architectural instruction emulation (Amdahl Macrocode), including stacking Program Call (PC) and IBM Cryptographic Feature (ICRF).

Work Experience

2002-present Farsight Systems Corporation Longmont, CO
Principal Product Architect - OS/390 z/OS - Java & C product development

2000-2002 Sybase, Inc. Boulder, CO
Senior Software Engineer - OS/390 - Java product development

1997-2000 Cole Software LLC Afton, VA
Principal Product Developer - OS/390 - ALC product development

1993-1997 BMC Software Inc. Houston, TX
Senior Product Developer - MVS/ESA OS/390 - ALC product development

1989-1993 Amdahl Corporation Sunnyvale, CA
Senior Software Engineer - Macrocode Operating System Development

1987-1989 Boole & Babbage Inc. Sunnyvale, CA
Senior Software Developer - MVS/XA - ALC product development

1986-1987 Cambridge Systems Group Inc. Santa Clara, CA
Software Architect - MVS/XA - ALC product development

1985-1986 Northrop Advanced Systems Pico Rivera, CA
Systems Programmer - MVS/XA

1982-1985 Southern California Edison Walnut Grove, CA
Systems Programmer - MVS/370 MVS/XA

1978-1982 I.P. Sharp Associates Ltd. Newport Beach, CA
APL Programmer

IBM z/OS Mainframe Experience

I have three decades of experience on IBM and plug-compatible mainframes, mostly with the MVS operating system (now known as z/OS). My mainframe product development career formally started at Cambridge System Group as a product support specialist for their ADC2 job scheduling product. I then moved to Boole & Babbage as a product developer working on various product offerings, as well as the level 3 maintenance of those products.

I moved to Amdahl Corporation to join the Macrocode development group for the Amdahl 5990 mainframe. I worked closely with architecture design group where I learned about instruction timings, pipeline effects, data alignment, CPU concurrency, and low level operating system principles (interrupt handlers for machine checks and program checks). I wrote several high performance machine instruction emulation modules for instructions such as Program Call (PC), Move Page (MVPG), and the IBM proprietary cryptographic instructions. Amdahl Macrocode is directly analagous to IBM Millicode.

After a reduction in force at Amdahl, I moved to BMC Software based in Houston Texas where I joined the data compression product development group. With my Amdahl experience in high performance assembly language, I developed a software data compression process that out-performed the IBM Compression Service Call (CMPSC) machine instruction. The process was awarded patent 5,815,096.

I moved from BMC Software to Cole Software in Afton Virginia as a principal product developer and as the Chief Executive Officer (CEO). Cole Software was a single product company offering the XDC assembly language debugger for MVS/ESA and OS/390. As a principal product developer, I added support to XDC for deferred hooks, cross memory mode, more built-in functions, instruction prediction enhancements, various command enhancements, and provided product maintenance and customer education. As CEO, I completely revised product licensing and marketing to dramatically improve revenues. I managed both the business side and product development side of the company.

I moved from Cole Software to Sybase to join their mainframe product development group where I learned Java programming, including Swing graphical user interface (GUI) design. I developed various assembly language utilities for their data replicator product, which copies data between various data bases. I was introduced to Extended Markup Language (XML) and worked on various XML-based source code generators.

After a reduction in force at Sybase, I started my own consulting company Farsight Systems Group. My first mainframe product offering was a source level debugger for the C language. The product required about two years of development effort involving Java, C, and assembly language. The front-end client was written entirely in 100% pure Java. The GUI front-end communicated over a TCP/IP data stream to the IBM mainframe server that was written in C language. The server interfaced with the debuggee application through a 64-bit cross memory mode assembly language component. The product presented a multiple window source level view the debuggee application, provided single stepping, dynamic breakpoints, memory watchpoints (fetch and store) with conditional comparisons, support for task mode and SRB mode, multithreading, and cross memory mode. The product was listed on the IBM Global Product directory as z/Debug. I eventually sold the z/Debug asset to Cole Software for a six figure lump sum, which they renamed to c/XDC-lite.

My current development project, among various small consulting jobs, is a cryptographic key management system that substantially complies with the US federal guidelines for best practices in cryptographic key management (NIST Special Publication SP800-57 parts 1,2,3). The product currently has a mainframe cryptographic server that provides high performance symmetric key ciphering for Triple DES (AES ciphering is in development), with secure key label support for use by DB2 stored procedures. A GUI front-end written in Java is planned for providing multi-level secure key management through a Crypto Officer interface communicating through TCP/IP to a mainframe server.