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General Skills

Operating Systems: Windows, Linux, Solaris, DOS.

Languages: Java/J2EE, C++, C, Visual Basic, Some Perl, 80x86 Assembly Language.

Technologies: EJB, Servlets, JSP, JDBC, HTML, XML, XSL, UML, SOAP, Apache Struts, ODBC, COM, DCOM, EDI, SmartCards.

Applications: BEA WebLogic, JBoss, Apache, Oracle, MySQL, Microsoft IIS, Eclipse, NetBeans, Apache Ant, Jakarta Tomcat, CVS, QMail, Samba, SourceSafe, PVCS, Rational Rose.

Employment History

J2EE Architect
Comsys
October 2002–Present

Projects:

- **Complex Bid Management System (CBMS)** As a contractor to British Telecom and Computer Sciences Corporation I was responsible for helping to enhance the Complex Bid Management System (CBMS). British Telecom and their clients used the CBMS for tracking the status on bids for contracts involving ATM switches and to help manage user workflow queues associated with these bids. This process involved creating bids, managing the bid process, tracking changes to bids and bid statuses, and for providing reports on these bids. The application is deployed on BEA's WebLogic application server.

Senior Software Engineer/Team Lead
e-centives, Inc.
February 1997–October 2002

E-centives was a venture capital funded Internet startup, of which I was the ninth employee hired.

Projects:

- **e-centives Organizer** My first assignment at e-centives was to assist in designing and implementing a Microsoft Windows based application for providing coupons to end-users. The application, known as the e-centives Organizer, was featured in several magazines and featured many advanced features including custom controls, irregular shaped windows, and many multi-media enhancements. The application was written using Microsoft Developer Studio and C++ using ObjectStore as our database. In addition, there were several web server plugins developed to permit the client application to communicate with the server through firewalls using the HTTP port. The coupon objects were developed as COM objects that were instantiated from data contained in the ObjectStore database.
- **e-centives Web Organizer** The next task involved migrating the technology used in the original application to the web. This involved the creation of a large infrastructure built using J2EE on a clustered Weblogic Application Server. This product is currently a premier product of e-centives, inc. and can be viewed at http://www.e-centives.com. The initial design for this product was done using UML in Microsoft Visio and Rational Rose. We originally developed the product using Microsoft Visual J but later migrated to Netbeans. We also moved away from the ObjectStore database technology to a full Oracle implementation using JDBC to access the data. Part of my responsibilities also included managing a team of three engineers.
- **e-centives Web Framework** My last responsibilities before leaving e-centives included maintenance and enhancements to the web based product and also for supporting one of our other major contracts with Reckitt Benckiser. Reckitt Benckiser is the marketing parent for many household products including Lysol, Jet-Dry, and many others. Samples of the sites that we created can be found at http://www.lysol.com, http://www.jet-dry.com, and http://www.calgon.com. We are building much of the infrastructure of these products using the J2EE on Weblogic, and using Apache Struts for the site navigation.

Technical Project Manager
Automation Intelligence, Inc.
February 1995–February 1997

Projects:

- **Promotion Optimizer** I began working at Automation Intelligence as a senior software architect for a sub-contract to A.C. Nielsen working on a product known as Promotion Optimizer. Promotion Optimizer is used by customers of A.C. Nielsen to plan promotions that meet certain objectives and constraints and to schedule these promotions. This product used sophisticated numerical modeling algorithms to project the outcome of the promotion plans based upon historical data and market influences. The prototype of this application was in Visual Basic and the client's requirement was to release the application as a fully object oriented system in Microsoft Visual C++.
- **Business Explorer** After the successful release of Promotion Optimizer, I was given a small team of developers to design and create another application for A.C. Nielsen known as Business Explorer. This product is used by a customer to evaluate actual sales data and to help assist in understanding why certain conditions were not met, and to "recommend" ways to meet these goals. Again, many sophisticated numerical and statistical modeling algorithms were used to determine the cause of the fluctuations. A very powerful graphing feature was implemented that allowed users to drill down on promotions and product lines and to examine anomalies in the results.

Software Engineer, Consultant
Cordant, Inc.
December 1991–February 1995

Projects:
- **Assure** My initial responsibility was maintenance and enhancements on a product known as Assure. Assure was a hardware and software based product that implemented the Department of Defense's C2 Security (Orange Book) for the PC. It involved an extensive understanding of DOS and Microsoft Windows internal structures including the necessary file system hooks for automatically DES encrypting files in DOS and Windows.
- **Assure NLM (Netware Loadable Module)** The next product extension to the PC product was the design and development of the Assure NLM (Netware Loadable Module) for securing Novell Netware servers. This later became part of the Trusted Netware Project.
- **Trusted Netware** The Trusted Netware Project was a high profile project to certify Novell Netware as Department of Defense C2 compliant. This included the complete evaluation of the Netware v4.1 operating system source code, including Novell DOS and the BIOS source code. Other important aspects of the system involved the MicroServer that was an embedded a PC on an ISA card. This embedded PC was the heart of the trusted system. This system involved understanding embedded controllers, DOS internals and internal structures, Microsoft Windows internals, and network operating systems. Volumes of technical documentation were also generated documenting every aspect of the system for presentation to the NSA during evaluation.

Software Engineer, Consultant
Microcard Technologies
February 1995–July 1995

Projects:
- **Assure - Smartcard** As a consultant to MicroCard Technologies, I designed and implemented an interface between the Assure security product developed by Cordant, Inc. and the MicroCard SmartCard reader. Microcard's SmartCard device is a credit card sized device with an embedded CPU. The interface code was written in 80x86 Assembly, C, and C++ for DOS and Microsoft Windows v3.x. This development was done with full consent from Cordant, Inc. to extend the capabilities beyond the initial product specifications.

Software Engineer, Consultant
ColorWave, Ltd.
August 1994–October 1996

Projects:
- **ColorPick** I was an active consultant with a small startup firm concentrating on color spectrophotometry. The owner of this company was the primary developer for the paint-mixing machine commonly found in many hardware stores. The product being developed was a pen-sized hardware device for performing color spectrophotometry. My major responsibility was to create drivers and development APIs for third party use and the creation of demonstration applications to show the capabilities of the handheld color spectrophotometer (called the ColorPick). This code base was written in Assembly, C, and C++ for DOS, Microsoft Windows, and Windows 95. In addition, I was responsible for designing and rewriting the interface between the Milton Roy color spectrophotometer and the PC under Microsoft Windows.

Software Engineer
Software Artisans, Inc.
February 1991–December 1991

Projects:
- **Transcend** I was one of three developers that designed and implemented an automated electronic forms software package capable of establishing a paperless office environment. This software was developed as a toolkit for system managers to use as the workplace dictates. This software was written in C using a GUI front end that was source code compatible with Microsoft Windows using a B-trieve database manager.

- **EDI Publisher** The second product was a utility application for assisting in the publication of EDI standards and standards documents. The output of the standards documentation was accomplished using Hewlett Packard's Printer Control Language (HP-PCL).

Software Engineer, Consultant
Peter Kewiet Industries
July 1991–December 1991

Projects:
- **Construction Management System (CMS)** Assisted in the development of a sophisticated construction management system for use in field offices around the world. Development of this system was done using Borland C and included writing a complete text based, event driven, windowing system and GUI.

Software Engineer, Team Leader
Comprehensive Technologies, Inc.
April 1990–February 1991

Projects:
- **Claims Express** Assisted in the design and implementation of a medical claims processing system (called Claims Express) for electronic insurance claim filing in the medical community. This program was written in C with Borland C using Borland's Graphics Interface (BGI).
- **EDI Link** After gaining more experience in the electronic data interchange environment, I was given the lead role in developing a text based EDI software package for the PC. I supervised three other engineers and helped coordinate their efforts in production of this software package (EDI Link).

Junior Software Engineer, Unix Systems Administrator
Electronic Data Interchange Association
June 1989–April 1990

Assisted in the design and development of software for Electronic Data Interchange (EDI) in C for Xenix/Unix. I also developed a small interoffice e-mail system in C for Xenix/Unix. I was also responsible for maintaining and administering our network.

Co-op Programmer
Star Technologies
August 1988–December 1988

I designed and wrote an imbedded error diagnostic program for array and vector processors based on the Motorola 68000 series microprocessors. This software was written in C and assembly using a Motorola 68000 cross-assembler on a DEC VAX.

Computer Lab Instructor
Prince Georges School System
October 1997–June 1998

I managed a small network of Apple computers for Phyllis E. Williams Elementary School. I was responsible for software maintenance and recommending software that would emphasize a particular teacher's curriculum.

Education

- **Rochester Institute of Technology**. Major in Computer Engineering Technology

Special Interests

- **Wireless Internet Service Provider (WISP)**. As a business and hobby I also manage a wireless Internet service provider in the Ashburn area over a T-1 installed in my home. This involves managing a Linux based server environment with installed Apache, Tomcat, MySQL, and QMail servers. Services are provided to local area residents using 802.11b technology. I also provide web and web application based services to other organizations.