

SENIOR SOFTWARE DEVELOPMENT ENGINEER

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SUMMARY:

Degreed, senior level software engineer, with advance expertise in computer software development, project management, database management systems, operating systems, data communication networks, factory automation systems, telecommunication systems and microprocessor hardware design.

TECHNICAL BACKGROUND:

- Experienced with various structured software design methodologies including FAA software standards. Fluent with a variety of programming languages and environments including, **Java, J2EE, JSP, servlets, struts, HTML, Front Page, ATL, COM, Visual InterDev, C/C++, Pascal, PL/M-80, PLM-x86, ASM-80, ASM-x86, ASM 8051, MASM, Z-80, BASIC, Fortran, Embedded SQL, HPGL.** Software development tools include: Kernel debuggers, Source code debuggers, In Circuit Emulators such as **ICE-386, DB-386**, software regression test tools: **Softprobe**. Microprocessors: **Intel 80 - 85, x86, 48, 51, 8250, 8253, 8254, 8255, 8259**; Motorola **6845, 146818**.
- Operating system and application programming expertise in **EPOC32, Microsoft Windows 2000, NT,98, 95, 3.1, UNIX, AIX, OS/2, Presentation Manager (PM), Database Manager (DBM), MS-DOS, DEC-VMS, MTOS**. Also have experience in product integration of **Voice Recognition** (Dragon, ViaVoice) and **Text to Speech** technologies.
- Experience in Telephony/ Call Processing technology and have developed a variety of protocol drivers: **HDLC, SDLC-loop, Bisync, X.25**, and **asynchronous/ RS-232**.
- Expert in **multithreaded** and **graphical user interface (GUI)** application development on different operating system platforms. In depth experience with SAA CUA guidelines, documentation standards and on-line help implementation. Have also developed own custom graphic library.
- Programmed numerous real-time, interrupt based, (**embedded and MS-DOS**) applications and have implemented a small **priority based, preemptive task scheduler** and **dispatcher**.

HIGHLIGHTS OF WORK EXPERIENCE:

- Part of the team that developed a struts based **servlet GUI** (JSP) for the service catalog component of the IBM Information Server (SOA) product. (WebSphere)
- Developed a struts based **servlet GUI** (JSP) for a license generator component that generates an XML license for the IBM Information Server product. This product is used by QA and customer support departments to manage license policy for over 40 sub-components. (WebSphere)
- Software developer on the **IBM Records Manager (RM)** development team, with specific responsibilities for the **Host Interface** (Stateful & Stateless EJBs) which provides an interface from a struts admin client to the RM J2EE infrastructure. I also developed a **Permission Synchronization Sync** (Message Drive Bean) component which provides an interface from the records manager engine to a scalable J2EE component that performs asynchronous synchronization of file plan components. Also a co-developer for a patent application (Asynchronous Data Parallel Processing) to secure rights to a method for scalable permission synchronization of a large number of database files. In addition I developed from scratch a **servlet** and **GUI based client** (JSP) to perform system test of J2EE Permission Sync. (WebSphere)
- Developed a secure content container to package music for download and playing to a wireless Internet device running EPOC32 operating system. Project demonstrated at Nokia headquarters, Finland. (**C++, EPOC32, MP3**)
- Part of a small development team that developed a **WEB based SQL database** application to keep track of product registration and license information for customers. (**ASP's, SQL Server, InterDev**)
- Part of a three person software development team that developed an **ActiveX, Voice Recognition control** that can be used in C, Java or WEB based applications to converse with different travel hosts. Developed

ActiveX database object that interfaced to IATA derived databases via custom and SQL interfaces. **IBM U.S. Patent Application. (Windows, C/C++, ATL, Visual InterDev)**

- Senior software developer on the **IBM Advanced Communication System Access (ACSA)** product that is the number one travel industry product for connecting a variety of computer reservation systems with large travel database systems. Product can support a variety of concurrent emulator sessions such as, IBM3270, UTS-30, SABRE & APOLLO. **(Windows, C/C++, TCP/IP, Winsock, ODBC, NetBIOS)**
 - Developed **A API compliant Voice Recognition and Text to Speech device drivers** along with application interfaces for an IBM mobile personal communications product prototype. Acted as product liaison with Dragon Systems speech engineering. Programmed software companding algorithm to convert 16 bit PCM to either u-law or A-law format to support DSP hardware chipset for text to speech conversion.
 - Designed and implemented a successful IBM/ISN Network product - "**IBM Token Ring Interface Point/DOS (TRIP/DOS)**". Product interfaced Token Ring network applications with a variety of remote **X.25 Digital Switching Systems**. Features included a GUI interface, user interactive link control, data trace facilities, "background" loading of **X.25 drivers**, and **cooperative time-slicing with other DOS applications**. Product won award and promotions for project management personnel resulted. **(C, NetBIOS, X.25, Token Ring)**
 - Ported the **IBM TRIP/DOS** network product including GIU, to 32-bit OS/2, creating the "**IBM Token Ring Interface Point for OS/2**" product. **(PM, OS/2)**
 - Ported an IBM/ISN Token Ring interface **Transport level kernel (TPORT)** to Ms "C" and then supported the incorporation and debugging of an imbedded **X.25 communication driver** using **ICE-386**. Also ported a **Bisync hardware device driver** from **IBM Multiport/2** to **IBM Portmaster** RTIC card. **(C, ASM, MS-DOS)**
 - Developed **AIX (RS-6000)** application program to establish message routing efficiency of the **IBM TRIP/DOS** product.
 - Developed an **OS/2 PM-Database Manager Report Generator** API as part of a distributed DBMS application that allowed a large trucking company to track freight from loading dock to delivery points anywhere in the domestic U.S. **(C, embedded SQL, OS/2, PM, DBM)**
 - Developed **application toolkit** to streamline access to the OS/2 Help Manager (IPF), and to support SAA CUA message standardization. **(Single and multi-threaded OS/2 DLL's)**.
 - Developed a prototype **OS/2 PM "Programmer's Toolkit"** to allow Advanced Train Control System MIS applications to access and create special graphic controls in OS/2.
 - Developed performance benchmark software including a **host HDLC driver**, for IBM Realtime Interface Co-Processor (RIC) communication hardware running under OS/2. Project extended into a successful demo using OS/2 PM and Database Manager.
 - Programmed various unit and integration tests to **FAA criticality 2** specification, for a proprietary operating system used in an airborne **Traffic Alert and Collision Avoidance System (TCAS)** for commercial aircraft. **(PLM-386, ICE-386, DB-386, Softprobe, DEC-VAX)**
 - Lead software engineer responsible for **G.E. "ScanVision"** linear measurement vision processor. Programmed specification enhancements based on customer requirements.
 - Lead software engineer for **G.E. "Optomation"**, pattern recognition/ feature extraction, vision processor. **(iSBC 86/30, AMD2901, 8048, Multibus I)**. Programmed enhancements to proprietary **V.P.L.** "Vision Processing Language" interpreter. Also programmed communication drivers to support a multiple serial port option, an **HDLC option**, and an off-line cassette program back-up option. **(PLM-86, ASM-86, ASM-8048, ECMA-HDLC)**
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- Lead software engineer responsible for **G.E. "AlphaVision"** character recognition, vision processor. Programmed enhancements to proprietary algorithms and added asynchronous communication interface for remote data upload/ download of VAX host data.
- Software engineer - Developed a **data collection/ analysis software package** featuring real-time communication between a vision system mounted on a LASER guided MIG/TIG welding robot and a remote PC. Features included user friendly window/ menu interface, and **graphic 2-D / 3-D display and plotting** of "weld-joint" data. (PLM-86, ASM-86, MS-DOS, DEC-VAX, HPGL)
- Developed **primary and secondary SDLC loop communication drivers** for a Digital Central Office (DCO) telecommunication line concentrator. Also programmed software diagnostics to exercise call processing hardware functions such as the **time slot interchange (TSI)**, in a **remote line switch (RLS)**. (PLM-86, ASM-86, Pascal, MTOS-86)
- **UNIX/C course instructor** on overseas assignment.
- Developed various programmer productivity software tools. (UNIX/C, VMS/DCL/C/Pascal, MicroVAXII).
- A member of the **R.I.A. 15.04 subcommittee** (Robotic Industries Association), formed to develop robot conformance classes for the **Manufacturing Automated Protocol (MAP)**.
- **Hardware design engineer** in the development and testing of an interlock sub-system for a laser printer. Original member of a four man hardware design team that developed from scratch, Documation Inc.'s "DocMicro" R.J.E. (Remote Job Entry) computer. (Intel 8086)

EMPLOYMENT HISTORY:

1996-Current	I.B.M. Corporation , Boca Raton, Florida (Direct)
1990-1996	I.B.M. Corporation , Boca Raton, Florida (Contract)
1989-1990	BENDIX/KING AVIONICS DIVISION , Fort Lauderdale, Florida
1987-1989	GRACE KENNEDY & CO., W.T.G. SYSTEMS, K & P HOLDINGS CO. (Overseas)
1983-1987	GENERAL ELECTRIC COMPANY (G.E.) , Orlando, Florida
1981-1983	STROMBERG CARLSON , Orlando, Florida
1979-1981	DOCUMATION INC. , Melbourne, Florida Motorola , Boynton Beech, Florida

EDUCATION:

BsEE (Cum Laude) - **FLORIDA INSTITUTE OF TECHNOLOGY**
Member Electrical Engineering Honor Society (Eta Kappa Nu)

AWARDS:

US Patent 6,442,552 B1, Aug 27 th 2002)	-"Bi-Directional Natural Language System For Interfacing With Multiple Back-End Applications".
"John Burgoyne Award for Global Team work"	-Paris, January 1997
"Patent Invention Application Award"	-Patent Pending for Method of Bi-Directional Translation of Speech and CRS formats. (IBM Corporation 1999)
"Recognition And Appreciation"	-Freight Data Management System Hub Automation. (IBM Boca Raton Solution Laboratory, (1990 - 1991)
"Certificate Of Appreciation"	-Robotic Industries Association (RIA), Standards Subcommittee - R15.04 (1987)

CONTINUING EDUCATION:

“DataStage Essentials for Enterprise Edition (DX434 - 02/2007)
“Leadership and Teamwork “ (EDE310 – 10/2006)
“Mastering the STRUTS Framework for Advanced Servlets and JSP Development” (AU0171XS – 09/2006)
“Object-Oriented Analysis & Design using UML with RSA, Rose or XDE” (AU0000SE – 01/2006)
“Rational XDE Tester Immersion” (RTL04 – 07/2003)
“E-Records Technical & Sales Support Training” (TU4800XS – 11/2002)
“EJB Development using WebSphere Studio Application Developer” (WF351 – 10/2002)
“WebSphere server administration” (WF381 – 09/2002)
“Advance EJB development” (WF351 – 09/2002)
“Advance Java programming”. (N2036 - 2002)
“WebSphere Java and advance course training” (N2036 – 04/2002)
“Records Manager” course training (Washington)” (TU4800XS – 11/2002)
“Applied Planning and Scheduling Using Planner and Microsoft Project 98” (VTI9 – 06/2000)
“Contracting For Project Managers” (UNF1- 04/2000 - I.B.M./ George Washington University)
“Project Management Fundamentals” (UNA9 - 03/2000 I.B.M./ George Washington University)
“Microsoft SQL Server 7.0” (AppDev 1998)
“Microsoft Visual InterDev” (AppDev 1998)
“OS/2 Physical Device Drivers” (IBM - DDSC)
“MACH Distributed Operating System” (CENET)
“Microsoft OS/2 Presentation Mgr.” (Microsoft. University)
“Concepts Of UNIX System Internals” (AT&T Education Center)
“Laser System Design” (Georgia Institute Of Technology)
“MAP Communication workshop” (Industrial Tech Institute)
“Intel Language Development Workshop” (General Electric Co.)
“Packet Switching” (Stromberg Carlson)
“Telephony and Network Switching” (Stromberg Carlson)
“Telephony Fundamentals ” (Stromberg Carlson)
