

James E. Snook
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Overview

Software engineer since 1984. Prior work as Project Engineer and Control System Engineer. Fluent in Database design, Java, C/C++, and object oriented design. Experienced with client-server programming and networked applications. Experienced with data driven applications and database implementation concepts. Experienced with embedded control for automation and robotics. Enjoy problem solving and design using object-oriented concepts and patterns.

Qualifications

- Experienced working on product development teams with team-leader/member responsibilities.
- Skilled object-oriented designer at multiple abstraction levels: algorithms, design patterns and UML.
- Excellent Java skills including AWT, Swing, Collections Framework, and J2EE including JCE, JDBC and servlets.
- Proficient in C/C++.
- Experience with Windows MFC programming.
- Experience with XML/XSL, CGI, Perl, PHP, ASP, SQL, HTML, CSS and JavaScript.
- Experience with Visual BASIC, BASIC, FORTRAN, various assembly languages.
- Highly proficient working with automation and control of manufacturing equipment.
- Significant experience working with motion control and robotic applications.
- Experience with PLC programming for industrial control.
- Experienced with semiconductor equipment control including automation and SECS standards.
- Well versed in E-Commerce requirements and concepts.
- Skilled working with databases, SQL, and data driven applications.
- Well versed in database implementation concepts including query optimization, memory and disk management, and transactions.
- Experienced with file system and device driver implementation for Linux.
- Experienced with embedded and distributed applications.
- Familiar with distributed programming concepts and tools including CORBA, DCOM and RMI.
- Worked with DOS, Windows UNIX Linux and embedded applications with no OS.

Achievements

- Designed and implemented database schema for metadata and tag data from recording tags for multi-species marine animal research collaboration. Developed scripts to processed existing metadata and input it into database. Developed techniques and tools for storing and retrieving data files using database.
- Designed and implemented server based interface for networked control of multi axis motion controller using Java Sockets and Threads.
- Designed implemented and maintained control software for robotic wafer handling systems for semiconductor manufacturing equipment using C and C++.
- Designed and implemented equipment control user interface and process calculator using Visual BASIC.
- Designed overall control systems for industrial equipment.
- Provided Project management for design and manufacturing of custom industrial equipment.
- Designed and implemented PLC control software for semiconductor equipment.
- Managed engineering team responsible for design and development of automation systems.
- Designed implemented and maintained persistent robust client data storage system using Java collection classes and file system.
- Designed implemented and maintained client content management and web based automatic update mechanism using BackWeb(TM) proprietary technology as a transport mechanism.
- Designed and implemented dynamically configurable data representation of client "shopping mall."
- Designed and implemented XML to Java and Java to XML transformation for client server communication using Zeus open source platform".
- Designed and implemented simplified servlet and server architecture separating data translation and data processing layers and interfacing to back end through CORBA.

Work History

2004-2008: Senior Software Engineer, Aviza Technology, Scotts Valley, CA

Worked with a team to maintain and enhance complex machine control software for semi conductor equipment. Focused on embedded control of automation and material management. Software was developed in C and C++ for Alta Vista embedded Linux and Lynx OS platforms. User interface work was done for Solaris and Red Hat Linux using Motif. Additional work for alternative prototype system was done using Windows MFC. Control systems involved multiple networked applications running on multiple hardware systems.

2002-2004: Consulting Software Engineer, Clients included Watkins Johnson, Novo Research, SMP Technology, Aviza Technology and Hopkins Marine Station. Projects included Research database design and implementation, Motion control Server software for distributed control of semiconductor process equipment, Embedded wafer handler control software, VBA scripts using SQL to update Excel spreadsheet data from an Access database, and PLC control.

1999-2002: Senior Software Engineer, DigitalSquare, Scotts Valley, CA
Worked with a team to develop a new java client for a "shopping mall" resident on the hard drive. Implemented and modified client and server-side transaction processing software. Created servlets for dynamic-content presentation. Used XML/XSL for messaging and formatting. Developed JNI code to allow Java application to use Windows Registry and talk to COM objects. Designed and implemented the update-management mechanism that provided new content delivery between an Internet server and a users client.

1980-1998: Member Technical Staff, Watkins-Johnson Inc., Scotts Valley, CA
Designed and implemented software for embedded control of robotic wafer handling systems for semiconductor manufacturing equipment using C and C++. Managed Staff of six engineers responsible for system automation. Provided project engineering and logic and control system design.

Education

1999 - 2002: UC Santa Cruz Extension, Santa Cruz, CA

Course work in C++, database systems, cryptography, operating systems, and Windows programming.

1999 - 2001: Cabrillo College, Aptos, CA

Course work in Java, networking, HTML and ASP programming.

1984 - 1986: University of California, Berkeley, CA

MBA, Business Administration. Focused on organizational behavior, general management and finance. Graduated with honors.

1980 - 1984: Stanford, University, Stanford, CA

Continuing education course work in controls and computer science.

1977 - 1979: University of California, Berkeley, CA

ME, Mechanical Engineering. Emphasis on controls and design.

1972-1977: California State University, Bakersfield, CA

BS, Mathematics; BA, Economics.