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BENNETT SMITH

OBJECTIVE

Secure a Software Technical Leadership position where my skills and passion for building and shipping high-quality software products will directly impact the success of the company. Looking for opportunities to build agile software development teams, manage product deliverables, establish and champion effective engineering practices, and motivate teams to exceed objectives while growing individual skills. Ideal opportunities would provide a balance of business, technical and management responsibilities across one or more products and development teams.

EXPERIENCE

PRINCIPAL SOFTWARE ENGINEER, PANO LOGIC MENLO PARK, CA 01/07 - PRESENT

Responsible for development of a new Windows Desktop Virtualization product. Helped to introduce Agile Development processes to the engineering team. Owned the build and source-code control environment for entire product suite. Setup cross-platform build system to support Linux and Windows development using CMake. Implemented continuous integration build system using Parabuild. All applications are build using Visual C++, Win32, OpenSSL and Trolltech Qt4 and Qtopia Core.

Developed a multi-threaded Windows service used to communicate with Pano device over UDP protocol. A proprietary network protocol was used to decouple keyboard, mouse and monitor activity from a virtual machine running on a VMware ESX server. The Pano device is a custom piece of hardware developed in-house to replace existing desktop computers in a corporate setting.

Developed a custom GUI for user login and system control using Trolltech Qtopia Core running on Linux. GUI is first piece of software seen by customers when a Pano device is powered up. Developed code to interface with Active Directory for user authentication using OpenLDAP libraries.

Developed desktop applications to permit end-users to control operating parameters for the Windows service and Pano device. The GUI was developed using Visual C++ and Trolltech Qt4. It included use of the Trolltech Qt Solutions system tray classes and a custom-built Windows shared memory IPC system for communications with the Windows service.

SOFTWARE ARCHITECT/TEAM LEAD, CPU TECHNOLOGY PLEASANTON, CA 04/03 - 01/07

Led a team consisting of two software developers, one quality assurance engineer and one part-time college computer science intern that was responsible for architecture, design, and development of System-on-Chip (SOC) engineering tools. Key tools included a Verilog-like proprietary circuit design language compiler, a cycle-based digital circuit simulator, a debugging and system introspection environment, and a regression test automation framework.

Responsible for developing enhancements and bug fixes for desktop applications using Visual C++, MFC, Win32 API and the Rogue Wave Stingray GUI class libraries. Developed new applications using Trolltech Qt4 framework and the Boost C++ class libraries. Refactored existing 32-bit MFC applications in preparation for porting to Win64, Linux and Mac OS X platforms.

Designed an object-oriented UI framework to improve consistency of menu display, keyboard short-cut mappings, and docking window behavior across all applications in the CPU Tech tool suite. Implemented framework using Visual C++, MFC, and Boost. Added scripting capabilities to framework using the Boost.Python library and the Python interpreter.

Led effort to improve software engineering practices within organization, across teams and departments. Developed software engineering procedures in support of ISO 9001:2000 certification process for CPU Tech. Introduced Perforce software configuration management system. Established procedures for migrating existing Visual SourceSafe assets to Perforce. Coordinates the selection and implementation of the TestTrack Pro bug tracking system.

PRINCIPAL SOFTWARE ENGINEER, METAEDGE SUNNYVALE, CA 06/01 - 03/03
Primary responsibility for architecture, design, and development of QualityInsight and C-Insight, two Microsoft SQL Server focused products for Data Warehousing and Business Intelligence rapid solution development.

Provided technical leadership for a team consisting of twelve engineers ranging in experience from junior to senior levels. Tasked with improving software development culture within organization. Successfully introduced Extreme Programming (XP) software development process to company.

Accountable for all feature enhancements and new product development for C-Insight and QualityInsight. QualityInsight developed using Microsoft .Net Framework, WinForms, ASP.NET, ADO.NET, XML, and the C# language. C-Insight developed using MFC, ADO, Win32 API, Visual C++ and Visual Basic, and ATL/COM.

LEAD TECHNICAL ARCHITECT, PULSEMD CAMPBELL, CA 11/99 - 06/01
Responsible for the design and implementation of a PACS-like system that processed medical transactions (prescriptions, lab orders, eligibility checks, etc.) and performed patient visit charge capture on the Windows platform. Principle focus was on developing a distributed system that achieves high levels of security, scalability, manageability, and reliability.

System design incorporated Microsoft Windows Distributed Networking Architecture (DNA). The presentation layer was implemented using Visual InterDev and IIS/ASP. The business services layer was implemented as a series of COM components with MTS. The data access layer was implemented as COM components using ADO/OLE DB to access Microsoft Access and SQL Server databases.

Accepted industry standard protocols were utilized for all network communications (HTTP, XML/XSL, SOAP, SSL/TLS, etc.). Development was done using Microsoft Visual C++ with ATL and MFC, Visual InterDev with ASP, and Microsoft SQL Server. The system was deployed on Microsoft Windows 2000.

Note: pulseMD shutdown all operations on July 1, 2001 after failing to raise additional venture capital.

SOFTWARE TEAM LEAD, PEOPLESOFT PLEASANTON, CA 10/98 - 11/99
Responsible for managing a team of six engineers working on a suite of development tools for building custom Supply Chain Planning applications. Tools included a custom language (SPL), a graphical development environment/forms manager, and a client/server communications protocol.

Responsible for the development of system level architecture for a supply chain planning transaction processing platform. Worked on improvements to the client/server communications architecture for transaction routing. Developed performance enhancements for SPL runtime class library, with a focus on the areas of dynamic memory utilization.

All tools developed were cross-platform; supported on HP-UX, Solaris, AIX, Linux, and Windows NT. Development was done in C++. Client user interface developed using MFC and ActiveX controls.

TECHNICAL TEAM LEAD, KANISA CUPERTINO, CA 03/98 - 10/98
Designing application architecture for a client/server knowledge management software system for Windows NT using Object Oriented design techniques using Rational Rose Enterprise Edition and Unified Modeling Language (UML).

Developed an interface between the Kanisa Knowledge Management Architecture and various third party call center applications (Vantive, Scopus, Remedy). Utilized a mix of ActiveX, OLE Automation, and Visual Basic for Applications (VBA) to accomplish the interface.

SR. SOFTWARE ENGINEER, ADVANTEST R&D CENTER SANTA CLARA, CA 01/97 - 03/98
Investigated the applications of component based software technologies such as ActiveX, COM/DCOM, ATL, and CORBA to the next generation of semiconductor test systems.

Influential in the decision to migrate to Windows NT for next ATE platform, helping other engineers on Visual C++, Windows NT 4.0, and various PC development tools. Acted in mentoring role for software engineers new to object-oriented techniques.

Successful conversion of semiconductor testing software from C language to C++. Increased object-oriented nature of system through the introduction of an ATE Test framework and numerous design patterns. The platform for this work was a hybrid system running Sun Microsystems SunOS 5.5.1 and WindRiver Systems VxWorks real-time operating system in a dual CPU VME chassis connected to custom ATE hardware. GNU g++ was used as the programming language. Rational Rose/C++ was used for object-oriented design work.

SOFTWARE ARCHITECT, SSGI CHICO, CA 04/92 - 12/96
Principle architect for Prowess Pro-SIM, an FDA Class II medical device for virtual simulation of cancer patient treatment planning in a radiation oncology setting. The platform for this system was Windows NT 4.0 on a Digital Alpha AXP Workstation. All programming was done in Microsoft Visual C++. OpenGL was used for all 3D graphics, and MFC was used for the user interface elements. ActiveX controls were utilized in the development of the user interface.

Provided technical management for Software Engineering department consisting of six full-time software engineers and two part-time programmers. Coordinated software requirement changes with Physics, Quality Assurance, and Customer Support departments. Conducted engineering design and code reviews. Performed employee performance evaluations for engineering staff.

Developed interface software for DICOM image import/export and transfer between Pro-SIM and various imaging devices. Specified and designed a custom ActiveX control for histogram equalization display in medical imaging software application.

Gathered requirements from end-users and in-house experts, performed use-case analysis of problem, and designed Pro-SIM object framework. Utilized the Booch method for iterative development using the Rational Rose/C++ CASE tool. Responsible for the development of Prowess RTP, a Radiation Therapy Treatment Planning software system to assist with the treatment of cancer. Programming was done using Microsoft Visual C++ 1.52. The platform for this system was Microsoft DOS 6.2 using the DOS/16M extender from Tenberry Software.

EMBEDDED SYSTEMS PROGRAMMER, LASSEN RESEARCH CHICO, CA 05/89 - 04/92
Primarily responsible for real-time software design and development in custom embedded systems. Played an active roll in the design of a ground based Doppler weather radar acquisition system.

Developed data acquisition and antenna movement routines for RADEX, the Radar Executive. The platform utilized for this work was a Force SPARC-1E CPU in a 6U VME Chassis. Work was done in C using the VxWorks real-time operating system. Developed real-time display routines for SUNrise product, utilizing the X Windows and SunView user interfaces on Sun SPARCStation workstations. Developed soft real-time network data transmission routines utilizing Berkeley sockets API. This work was also done on the VME system in VxWorks.

PUBLICATIONS

Howard K. Wolff, Tom P. Vayda, Steve V. Murakami, and C. Bennett Smith, *The Design and Implementation of a Unix Performance Analyst's Workbench*, The Proceedings of the 1989 Summer Computer Simulation Conference, July 24-27, 1989, Austin, Texas

Howard K. Wolff, Tom B. Costales, and C. Bennett Smith, *A Methodology for Performance Comparisons of UNIX Microcomputers*, California State University, Chico; Computer Science Technical Report, November 1990.

EDUCATION

California State University, Chico — BS Degree in Computer Science, Systems Option — 1993

Lead research assistant for team developing a UNIX Performance Analyst's Workbench. Developed a number of programs that provided a means for measuring and characterizing workloads on a UNIX system, and the ability to simulate these workload characteristics on a machine under test.

Teaching assistant for Computer Science department's only graduate level UNIX course for three semesters (01/01/89 - 05/25/90). Provided instruction on numerous topics and hands-on help for the students. Topics included shell programming (sh, ksh), awk, network tools, system administration, and the use of system calls in the C programming language.

CONTINUING EDUCATION

- Rational Rose Training, Rational Software
- Rational Object-Oriented Analysis & Design using UML, Rational Software
- How to be a more Effective Team Leader, Rockhurst College National Seminars
- Cross-platform C++ GUI Application Development using Qt4, Trolltech

RECENT "FOR FUN" PROGRAMMING PROJECTS

- Developed a Safari browser plugin using Objective-C and Cocoa in order to capture HTML content directly from browser sessions and do price analysis of on-line store catalog items. Involved low-level reverse engineering of Safari, use of "method swizzling" and "class posing" in order to gain access to Safari internals. Used SIMBL input manager in order to inject application into address space of browser. Runs on Mac OS X 10.4 and 10.5 in all currently supported versions of the Safari browser.
- Developed an application called Mile Marker to track fuel consumption and cost data using Trolltech Qt4 and Xcode on Mac OS X 10.5. Cross-compiled to Windows platform.
- Developing an iPhone version of Mile Marker using Objective-C and Cocoa Touch.

TEACHING EXPERIENCE

University of California, Santa Cruz Extension — Windows Systems Programming — 1998 - 2005

Taught evening courses at Santa Clara UCSC Extension facility. Topics covered include Microsoft .NET (Visual Studio .NET, C#, ASP.NET, ADO.NET, WinForms), Win32 system and application (GDI, MFC, Visual C++) programming, SQL 2000 database development, web application development, and application debugging techniques. Developed material for XML/XSLT and Advanced Win32 GDI/API applications development courses. Consistently receive high scores from students on end-of-term instructor evaluations.

PROFESSIONAL MEMBERSHIPS AND CERTIFICATES

ACM, MSDN, TDWI, SQLPASS, BAY.NETUG, MS-HUG, Apple Developer Connection, Microsoft Certified Professional.