

Rich Knox

Résumé

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Overview

I offer extensive software engineering experience in a variety of technologies and platforms. My recent work has focused on mobile application development for **Android, iPhone, BlackBerry, Java ME, BREW**, and other mobile and embedded platforms. I've also worked on desktop applications, server components, and embedded systems. I have extensive programming expertise in **Java, C++, and Objective-C**. I'm also familiar with **HTML, JavaScript, Python, and Perl**. I've worked with **XML and SQL databases** and have experience with **Windows, OS X, and UNIX**. I've used various development environments including **Eclipse, NetBeans, Visual Studio** and **Xcode**. I have good organizational skills and have experience managing and coordinating teams. I'm a well rounded generalist who can bring immediate value to an organization while quickly learning the particular technology and application domain at hand.

Employment

2009-2009 **Senior Mobile Developer, Ontela, Seattle, Washington**

I worked on a photo uploader application for Android, BlackBerry, Java ME, and BREW cell phones. I worked on both user interface and back end software. I used JSR-179 to provide location data for photos not geotagged by the camera application for BlackBerry and Java ME devices. I set up build scripts for Android and improved build times for our other platforms.

2005-2008 **Senior Software Development Engineer Lead, UIEvolution, Bellevue, Washington**

I worked on the core technology team as a lead and an individual contributor. We developed cross platform middleware to run on a variety of mobile and embedded platforms including Java ME, BREW, iPhone, embedded Linux, and other platforms. I was responsible for maintaining the byte code compiler for UJML, a proprietary markup and scripting language for mobile devices. I also designed and developed a component based architecture for UJML. I developed components to access the native file system and contact list on Java ME and BREW devices. I also worked on streaming video components. My work involved extensive contact with customers, carriers, and OEMs. This technology enabled UIEvolution to develop mobile applications such as AT&T Media Mall 2.0, MySpace Mobile, ESPN MVP, and others.

1998-2005 **Software Development Engineer, Microsoft Corporation, Redmond, Washington**

I worked on Visual SourceSafe and other developer tool products. I served as a mentor for an intern and a new hire. I also managed several contract developers on sustaining engineering tasks. I analyzed network throughput for Visual SourceSafe and achieved a 30% performance improvement.

1997-1998 **Software Development Engineer, SolutionsIQ - under contract to Microsoft Corporation, Redmond, Washington**

Implemented new features and fixed bugs for Visual SourceSafe.

1995-1996 **Contract programmer, Educational Fontware Inc., Bainbridge Island, Washington**

Developed an RTF parser that inserted proper ligatures for hand writing character fonts.

1995 **Contract programmer, Sensory Circuits Inc., Port Orchard, Washington**

Ported an IEEE floating point library for an embedded microcontroller application.

1988-1997 **Software engineer, DLI Engineering Corporation, Bainbridge Island, Washington**

I worked on a team developing machinery vibration data collectors for predictive maintenance applications. I implemented test fixtures and procedures for maintaining quality control and improving fault tolerance. I optimized a Fast Fourier Transform (FFT) algorithm to cut processing time in half. I designed digital hardware, programmable logic, and firmware for several data collection products. This included custom preemptive multitasking software to control data acquisition and processing. I facilitated communication between hardware, software, and marketing teams to insure a smooth product roll out. I also designed a SQL database to store machinery condition data from vibration and engine oil analysis.

1987-1988 **Contract programmer, The Microperipheral Corporation, Redmond, Washington**

Implemented database manipulation and repair utilities for a UNIX based call center system.

1986-1987 **Contract programmer, M & R Services, Seattle, Washington**

Wrote software for a desktop pension valuation and administration system.

1981-1985 **Consultant, Liberty Bay Computing, Poulsbo, Washington**

I was involved in engineering support and product design. My initial responsibilities involved production test of disk controllers and CPU boards. I developed test plans, fixtures, and software. I also did fault diagnosis, tracking, and repair. This evolved into an automated circuit board test and burn in fixture that we used in house and sold to other companies. I designed several subsystems for a 68010 based CPU board including memory management, cache control, and CPU timing circuitry. I also wrote diagnostic firmware, performed prototype debugging, and wrote sections of the final documentation. I built a simple bus state analyzer for 68000 microprocessors and wrote an object code disassembler for in house debugging efforts. These were later incorporated into a product.

1981-1988 **Proprietor, HiTech Computer Support, Bainbridge Island, Washington**

Computer repair and services for computer dealers, school districts, and small businesses.

1979-1981 **Technician, Byte Shop Computer Service, Seattle, Washington**

Field and depot repair service for personal and business computer systems.

1974-1975 **Programmer-analyst, M & R Services, Seattle, Washington**

Wrote actuarial programs for pension and life insurance applications.

1972-1973 **Programmer, School of Business, University of South Dakota, Vermillion, South Dakota**

Wrote financial analysis programs for a study of the tax structure of South Dakota.

1971-1972 **Laboratory Assistant, Computer Center, University of South Dakota, Vermillion, South Dakota**

Assisted computer science students in using the facilities of the USD Computer Center.

Education

1969-1973 **University of South Dakota, Vermillion, South Dakota**

BA in mathematics with minors in computer science and history.

1973 **Northwestern University, Evanston, Illinois**

Graduate study in mathematics.

1976-1977 **University of Washington, Seattle, Washington**

Graduate study in computer science, probability, and statistics.

1978-1979 **North Seattle Community College, Seattle, Washington**

Electronics, digital and microprocessor circuits.

References

Available upon request.