

BEN MESANDER

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SUMMARY

Twenty years of experience leading software development teams and implementing software. Strengths include UNIX, C, C++, numerical methods, control systems, and digital signal processing. Experience includes embedded software, scientific software, and enterprise software development environments, as well as business development and presales technical work.

PROFESSIONAL EXPERIENCE

Cardinal Peak, LLC
Lafayette, CO

Jul 2006 to present

Partner

Cardinal Peak is a specialized contract engineering firm that assists companies in bringing embedded products to market quickly and with very high certainty. We offer consulting, contract engineering and expert witness services, with special expertise in building embedded products relating to video, signal processing and mobile applications.

Responsibilities include technical consulting, software development and management of contract engineering projects.

Symmetricon, Inc. (Formerly Timing Solutions, Inc.)
Boulder, CO

Jan 2001 to Jul 2006

Senior Software Engineer

Designed and developed object-oriented real time numerical control system and signal processing software for time and frequency systems in C++ on embedded FreeBSD UNIX. Responsibilities included taking software portion of systems from a numerical model and system block diagram to shippable product. Developed UNIX device drivers for atomic clocks and custom embedded system hardware in C. Performed data reduction and analysis in a variety of languages, including Python. Implemented corporate bug tracking system, nightly build regression system, and build process.

Independent Consultant
Longmont, CO

Dec 2000 to Jul 2006

Owner

Performed various consulting engagements including PowerPC assembly development for a government agency, PowerPC development toolchain installation for a router manufacturer, HIPAA-compliant firewall/network security for a hosted healthcare application, and RF signals analysis & demodulator/decoder development for a signals intelligence company. Implemented bug tracking and version control systems for a number of small businesses.

InfoTrust Group (formerly Creative Concepts Corporation)
Boulder, CO

May 1997 to Jan 2001

Partner

System architect and lead developer for content management systems, written in Java (Swing GUI and web based). Typical applications involved back-end database systems (Oracle, SQL Server, PostgreSQL), and the front end used a variety of Java application servers (Tomcat, Weblogic, etc.) Systems had to scale either to very large number of users (developer.intel.com) or had to handle very large databases containing XML or SGML (multi-terabyte databases at Corporate Express, BF Goodrich Aerospace, etc.) In many cases compliance with government or other regulatory bodies was a major design point. Servers were both Windows NT and various UNIX systems (Linux, HP/UX, Solaris, AIX). Performed presales technical support for customers. Implemented corporate bug tracking and version control system. Member of Board of Directors; helped set business direction for the consultancy.

International Business Machines Inc.,
Worldwide Government Industries
Boulder, CO

Apr 1995 to May 1997

Advisory Engineer

System architect for project to deliver UNIX based infrastructure to the US Forest Service. This included a GIS (ARC/INFO) as well as a database component (Oracle). Lead developer for telecom software used by customer (OSI stack on AIX UNIX, X.400 mail system, TCP/IP applications).

US Geological Survey, Water Resources Division
Lakewood, CO & Oklahoma City, OK

May 1990 to Apr 1995

Computer Engineer

Performed UNIX, Windows, and Macintosh system administration, IT operations and procurement. Assisted Hydrologists in implementation of numerical ground-water models in C and FORTRAN. Analyzed data and produced digital maps with ARC/INFO GIS.

Seagate, Inc.

May 1989 to May 1990

Electrical Engineer

Developed embedded SCSI firmware for high-performance 5.25" and 3.5" disk drives in Intel 80186 assembly language. Responsible for implementation of SCSI "log select" and "log sense" commands in drive firmware.

■ **EDUCATION**

University of Oklahoma

Sept 1984 to Aug 1989

B.S. Electrical Engineering, 1989

■ **PUBLICATIONS**

Christenson, S.C., Morton, R.B., and Mesander, B.A., 1990, Hydrogeologic maps of the Central Oklahoma aquifer, Oklahoma: U.S. Geological Survey Open- File Report 90-579, 3 p.

Ferree, D.M., Christenson, S.C., Rea, A.H., and Mesander, B.A., 1992, Ground- water-quality assessment of the Central Oklahoma aquifer, Oklahoma: Hydrologic, Water-Quality, and Quality-Assurance Data 1987-90: U.S. Geological Survey Open-File Report 92-641, 1-193 p.

Austin, W.A., Mesander, B.A., 1999, "Intel's Web-Based XML Publishing System", Presented at Momentum 99, Documentum User's Conference.

Celano, T.P. Stein, S.R. Gifford, G.A. Mesander, B.A. Ramsey, B.J., 2002, Sub-picosecond Active timing control over fiber optic cable, Frequency Control Symposium and PDA Exhibition 2002. IEEE International. ISBN: 0-7803-7082-1