

Robert Jeffrey McDonald

396 Hibiscus Way, San Rafael, CA 94903-2432 – (415) 297-9529 – bobsjobsearch@myrealbox.com

Objective

A media engineering position that requires a comprehensive understanding of software development and computer administration in order to create and support modern software-controlled media systems.

Qualifications

Formal training, SBE certification in broadcast engineering. Extensive experience with modern software development and computer administration on Windows and UNIX-like platforms. Project manager and technical lead on multiple software projects. Experienced technical writer, public speaker and educator.

Experience

Media Engineering and Video Production

Graduated [Broadcast Television Engineering Technology](#) (BTV) program at [Napa Valley College](#), received [SBE Certified Broadcast Technologist certification](#).

- learned use of production facilities including Ikegami 79E, Sony BVP-360, Sony BVP-370 SDTV cameras, Yamaha PM3000C 40-channel audio mixing console, Grass Valley 1600 video switcher, Philips BTS digital video server, Final Cut Pro editing system
- taught [usage of UNIX-like operating systems](#), focusing on [FreeBSD](#), as part of a program class
- led [initial design and implementation](#) of multi-channel RTS intercom system
- developed Microsoft Access application interfacing to [HID ProxPro](#) card reader
- producer, director, script writer, engineer for [outreach video on BTV program](#)

Hold Advanced Class amateur radio license (call sign KF6AZ). Assembled, operated station in HF bands using CW, SSB. Constructed electronic devices for station.

Operated video server, video switcher at [KRCB](#) during telethon on October 22, 2006.

Set up lights, operated character generator for production of *Be Smart Stop SMART* video at [Comcast's Marin Community Programming](#) studio on September 26, 2006.

Software Development

Developed wide variety of complex competitive single-user, client-server, web-based software products using object-oriented languages and SQL databases on Microsoft and UNIX-like operating systems. Participated in all phases of software development life cycles for nine released software products.

Software development technologies include object-oriented languages (C++, C#, Java, Smalltalk), SQL databases (Microsoft, Sybase, Oracle), Microsoft technologies (.NET, ASP, COM, Win32 API), others (XML, LDAP, SSL, digital certificates).

Computer Administration

Administered computers running Windows, Linux, and [FreeBSD](#) : OS installation/upgrade, NTP, ipfilter, printcap, rc.conf, X, periodic scripts, resolv.conf, dump/restore, CVS/rcs.

Project Management and Technical Leadership

Fulfilled contract with major regional ISP to develop multimedia CD-ROM for marketing and customer sign-up. Negotiated technical issues with client, provided technical leadership to other programmers.

Provided technical leadership (market research, design, specification, management of three programmers, collaboration with other departments) at [Sybase](#) for a \$1 million project. One programmer said it was the best project she had ever worked on.

Successful performance on software development contract with public utility company resulted in their designating us as the sole source for related future contracts.

Engineered successful system demonstration resulted in venture capital firm awarding 1 million dollars in additional funding.

Earned company-wide quality award at [Sybase](#) for teaching product internals to team.

Training and Documentation

Initiated internal education program: taught 36-hour class, wrote 270-page training manual on design and implementation of department's software products.

Wrote 150-page user manual for software product.

Presented talks on software products at user group meetings.

Automated Systems Building and Testing

Developed programmatic build and test system at one company using Java, JUnit, Ant, Perforce, bash. First implemented for my own needs, quickly became engineering standard after including builds of build products requested by other engineers.

Within development group at another company, initiated practice of developing automated regression tests for all new features.

Helped enhance *make*-based build system, performed code coverage analysis of unit tests in C++.

Education

Degrees and Certifications

A.S., [Broadcast Television Engineering Technology](#), [Napa Valley College](#), Spring, 2007.

[Society of Broadcast Engineers Certified Broadcast Technologist](#), Spring, 2007.

M.S., Plant Pathology, [College of Natural Resources](#), [University of California, Berkeley](#)

B.A., [Chemistry](#), [College of Creative Studies](#), [University of California, Santa Barbara](#)

Workshops and Seminars

Broadcast Engineering Conference, SBE Ennes Workshop *Everything Audio*, [NAB 2007 SBE Ennes Workshop](#), Sacramento, February 24, 2007

[Comcast's Marin Community Programming](#) *Orientation, Field, and Studio* video production classes, January - February 2005

[Bay Area Video Coalition's Basic Video Production](#) course, November, 2004

Memberships

Student memberships: [SMPTE](#), [SBE](#). Chairperson, [SMPTE Student Chapter 11](#), 2006-2007; organized tours of local media engineering installations.