

Richard Carlson
PO BOX 42311, Austin, TX 78704
(512) 965-0218
jrc@brainhotel.org

Objective

Join a cross-disciplinary team dedicated to providing open, freely available tools, resources, and technologies.

Skills

- Rapid development in rural regions with limited connectivity
 - Application programming (C/C++, Java)
 - Web application development (HTML, PHP, MYSQL)
 - Unix system programming (C/C++)
 - Python, XML, Perl
 - Setup, networking, benchmarking and maintenance of Linux, BSD, and Windows
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Professional Experience

- **Freelance Software Engineer in collaboration with Madelaine Plauché at the International Computer Science Institute**
Berkeley, CA **November 2005 to present**

Developed Open Survey, an open source tool for creating audio-enabled touchscreen surveys. Worked with team from TIER (Technology and Infrastructure for Emerging Regions) to develop Open Spell, an educational software application that targets reading and writing skills in native languages and dialects.

Implemented the low-cost speech recognizer and user-interface toolkit, Open Sesame, for illiterate users in developing regions. Technical responsibilities included the design and implementation of the multimedia spoken dialog system (voice recording, video display, speech recognition) and GUI editor. Supervised field deployment in Tamil Nadu, India. Trained and supported NGO staff in further deployments.

- **Software Engineer for California Prevention and Education Project**
Oakland, CA **March 2006 to November 2006**

Developed open source survey tool to collect information about the spread of HIV/AIDS. Trained and supported staff through deployment of survey. Participated in the community advisory board.

- **Software Engineer for Gracenote, formerly CDDB**
Berkeley, CA **July 2002 to November 2004**

Worked with a team to implement and maintain distributed real-time database transaction servers that performed over 6 billion music searches in 2005. Primary responsibilities included developing module for validating users and client applications and controlling their permissions with regard to database elements. Secondary responsibilities included developing a translation server for device traffic (e.g. car stereos), server stress testing, and system benchmarking.

- **Sustainable Food Center**
Berkeley, CA

March 2002 to April 2002

Volunteer for non-profit that promotes health education and food security. Repaired and built PCs. Provided technical support and training for volunteers in networking, group collaboration, and basic computer use.

- **Software Engineer for Gracernote, formerly CDDB**
Berkeley, CA

September 2000 to October 2001

Contributed to the QCD Media Player project, including ID3 autotagging and CDDB user registration. Maintained the CDDB Windows SDK user interface. Conducted CDDB Service load testing, consisting of designing and implementing Unix client applications which thoroughly test and stress the CDDB production service. Maintained and supported the CDDB Unix SDK. Engineered the Build process for several projects, including the complete implementation of the latest CDDB Service build using Autotools.

- **Software Engineer for Fluid Entertainment**
San Rafael, CA

December 1998 to May 2000

Joined Fluid Entertainment at startup. One of two programmers who designed and implemented the entire code-base that was used to release three retail entertainment products.

Primary responsibilities consisted of the design, the implementation, and the maintenance of code responsible for sound, windowing, UI, resource compiling and loading, and file I/O. Additional tasks included in-game window layout, application installers, and “autorun” applications. Secondary responsibilities included authoring Fluid’s web page and setting up and administering the company’s Win2000 server.

- **Software Engineer for Presage**
San Rafael, CA

September 1997 to December 1998

Programmed level editor for “LodeRunner2” published by GT Interactive. The 3D isometric editor was used to create over 150 levels for the game and was packaged with the final product. Also developed an “autorun” application to present the user with installation and game options.

Programmer on “Rockett’s Tricky Decision” published by Purple Moon. Contributed to all aspects of the game development. Developed libraries for cursor, font, and text display.

- **Software Engineer for IBM**
Dallas, TX

July 1996 to July 1997

Implemented the front-end user interface of a software solution designed to retrieve computer configuration records from a database over the Internet. The interface involved a Java applet working in conjunction with a web browser to retrieve, manipulate and display data in spreadsheet format.

Education

Computer Science degree from the **University of Texas at Austin**. Graduated in 1996. Emphasis on object oriented programming in C++.

Excellent references available upon request