

# Jesse Morris

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## Summary

A **Software Engineer** with 12 years industry experience and a good design sense, excellent ability to work on a small team, and an interest in modern development practices and techniques. Seeking to apply those skills towards making things more awesome.

## Technical Skills

**Languages:** Expert at C++ w/ 10 yrs experience. 2 years Java experience.

**Skills:** Low level hardware interface, high level OO design

**Technologies:** JNA, Win32, COM, threads, media codecs, SDL, DirectX, Windows, Linux

## Professional Experience

### **Coverity, Inc:** Senior Software Engineer

2006 – 2010

Designed and implemented interchange format for exporting software architecture information for C++ programs, for a partner's tool to display. Crafted extensive testsuite to exercise all relevant C and C++ language features. Created cross-platform installers for all Coverity products, including new tomcat-hosted web app, with full Tomcat and PostgreSQL included. Created java-based launchers to manage those multiple processes in an OS-appropriate manner. Made heavy use of JNA to provide native behavior in otherwise pure-java software. Result: Installation and management of server is "a snap," and both pre-sale trials and paid customers are insulated from deployment complexity.

### **Cloudmark, Inc:** Senior Software Engineer

2004 – 2006

Cloudmark makes spam filtering software for email. Responsible for maintenance, support, and enhancement of Cloudmark spam filtering plugin for Microsoft Outlook. Took ownership of an large and complex existing codebase and implemented additional functionality, while gradually repairing the results of earlier startup-style slash & burn coding. Maintained installer and update system. Internationalized product.

### **AOL Music:** Software Engineer

2002 – 2004

Responsible for much of the initial design and development of the AOL Media Player, from estimating time requirements to shipping. Extended the MusicNet online music store, a service which has 150,000 paid subscribers. Designed and implemented playlist management system. Debugged and extended CD Burning support. Created QuickTime for Windows plugin for Winamp3. Designed media playback API, encompassing rights-managed audio playback and various media formats, for use in multiple projects. Acted as local C++ guru and mentor.

### **Sonique:** Software Engineer

2000 - 2001

Worked on a small team (6 people), to make Sonique2 the coolest and most flexible media player available. Built the Mantis plug-in architecture and portable UI toolkit, based on XML & COM. Designed and implemented MantisScript, an object-oriented user interface design and application control language, exposing Mantis's features and extensibility to UI designers in an easy, portable, and robust manner.

**TestQuest: Software Engineer**

1999 - 2000

TestQuest makes a black box regression testing automation platform, a PC with VGA input & keyboard output which can script the control and monitoring of other computers and embedded devices. Designed several submodules and custom controls, including a stand-alone serial port monitor and custom image display control (for comparing two screen captures). Researched fault tolerant video capture and correlation (specifically text recognition), increasing the flexibility available to clients using the product.

**ColorSpan: Intern, Software Engineer**

1998 - 1999

ColorSpan makes high quality wide format color inkjet printers. Developed firmware for a prototype of next model. Troubleshot problems together with hardware devopers. Used real-time operating system Nucleus. Redesigned the print head registration system, which uses a CCD camera to identify and correct for misfiring jets, increasing robustness, and adding support for prototype hardware, now sold as the DisplayMaker Series XII.

**Education****Macalester College, Bachelor of Arts**

1995 -1999

- Computer Science, Linguistics
- Computer Science capstone project: Analysis of various technologies for music recommendations, and an implementation of a neural feature-based system.

**Hobbies****Electronics**

- Created from scratch SHaRC, a hand-held navidevice, which players in the Ghost Patrol puzzle game used to find "ghosts" around Bay Area. Designed everything: circuit, software, plastic housing. Programmed AVR microcontroller to communicate with GPS & compass modules and calculate and present navigation information with a "sciencey" look and feel. Made and delivered 25 units on time for the 30-hour long game.
- Implemented real-time 4-channel audio mixer and event system for a ProTracker mod-file music player that runs on an 20 MHz AVR microcontroller.
- Wrote ledtro - the first-place-winning entry in the San Francisco Mini Demoparty wildcompo. Runs on AVR microcontroller, in EMSL-designed "Peggy" led matrix.

**Graphics Programming**

- Real-time interactive graphics (Shown at 2000+ person dance parties) Live control by operator using mouse, joystick, keyboard, and MIDI controllers, as well as TCP/IP based control module.

**Game Programming**

- Award-winning DirectX accelerated 2D fighting game Penny-Arcade Fighter
- OpenGL accelerated puzzle game Magic Crayon Conundrum

**Other Hobbies**

- Photography (visible & infrared. <http://pieforbreakfast.com/aubilenon>)
- Hosting and playing in real life puzzle games