

# Michael Comb

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## PROFILE

A senior developer with significant management experience. Lead engineering team in a small startup company from pre-funding stage to successful small company servicing Fortune 500 clients. Extensive experience architecting and implementing dynamic, database driven web sites built to serve millions of users. A technical resource with exemplary communication skills who enjoys interaction with clients, engineers, executives, and other coworkers.

## SKILLS

**Primary Languages:** Java, SQL, HTML, JavaScript

**Secondary Languages:** PHP, C++, C, Objective C, Perl, Python, RegEx, Unix Shell Scripting

**Technologies:** JSP, J2EE, EJB, AJAX, Database Persistence, Open Source Development, eCommerce, Credit Card Payment Processing, Apache Wicket

**Databases:** Oracle, MySQL, Postgress

**Operating Systems:** Linux, Mac OS X, FreeBSD, Solaris, Other Unix Variants

## EXPERIENCE

### **Director of Engineering, SoftCoin, Inc.; Brisbane, CA 2007-Present**

*SoftCoin is an ASP providing hosted web sites primarily for large packaged goods manufacturers. The company's technology suite allows a client to launch a sweepstakes, instant win, loyalty or eCommerce web site in a short time period with minimal invested resources.*

Managed an engineering team including full time developers, contract developers, QA staff, Systems Administrator, and DBA. Served as engineering representative on pre-sales technical calls. Collaborated with creative services and account management team on promotion scheduling and resource allocation.

Architected and lead development of electronic couponing platform allowing consumers to deposit manufacturer coupons directly to retailer frequent shopper cards. Researched and tested a variety of component based web development frameworks before choosing Wicket as the front-end framework for this platform. Implemented initial eCouponing website (P&G eSAVER).

Streamlined promotion setup and development process allowing SoftCoin to build more promotional sites without significantly increasing size of development team. Increased capacity from one launch per week to three launches per week with only a thirty percent increase in work force.

Acted as primary developer and technical contact for multiple high profile client promotions including: Dr Pepper Band in a Bubble, Dr Pepper Hunt for More, and SoBe No Fear.

### **Engineering Manager and Platform Architect, SoftCoin, Inc.; Brisbane, CA 2005-2007**

Grew engineering team from three to six people as we scaled to meet increased customer demand for our services. Participated as company technical representative on sales calls and meetings at client sites.

Acted as primary developer for all integration projects, including SOAP based web services allowing third parties to host portions of promotional web sites while passing consumer data back to SoftCoin for business logic and storage. Designed shared-key based message authentication system for SOAP web services.

Managed development and launch of more than 50 promotional client web sites including sites exceeding 100,000 unique users per day. Clients included CSAB, GSK, P&G and many smaller brands.

Authored client documentation for web services, code generation, opt-out list filtration, code validation, and other integrated services.

Sourced and implemented “Trac” web based project management software to manage SoftCoin engineering requests. Wrote group calendaring plug-in for Trac in python for SoftCoin use.

### **Lead Engineer, SoftCoin, Inc.; South San Francisco, CA 2001-2005**

Served as senior member of technical staff after VP of Engineering resigned. Lead team of up to six engineers in design and development of SoftCoin’s second generation promotion platform. This system included J2EE components for registration, account maintenance, sweepstakes, instant win, refer a friend, prize catalog, transparent web proxy, administrative sites, customer service site, reporting, analytics, and code entry supporting billions of unique codes.

Designed and developed J2EE eCommerce platform allowing for sales of thousands of items in hundreds of categories. Platform includes ability to search, tag, and sort items as well as support for featured items, cross-sell, up-sell, personalized recommendations, wish lists, flexible shipping cost algorithms, and the ability to sell items for a combination of points and cash. Included integration with Cybersource and VeriSign for payment processing and tax calculation. Integrated with multiple fulfillment houses for order processing. This eCommerce platform is currently used to host several Proctor and Gamble eStores as well as hosting all of SoftCoin’s promotion rewards fulfillment.

Tuned and rewrote SoftCoin’s transparent proxy technology which is used to allow a user to shop at a third party eCommerce site while receiving a discount from SoftCoin. More than tripled total throughput of proxy while improving response time without adding additional hardware.

Designed and developed XML rule based personalization engine allowing a wide variety of personalized content. Included support for personalized eCommerce offers, personalized web pages, personalized emails, personalized promotion rewards, and other customizable content.

Acted as primary database architect and secondary Oracle DBA. Created all tables, synonyms, sequences, and indexes in development databases and managed production database when primary DBA unavailable. Assisted in tuning production database during periods of heavy load.

Oversaw migration of platform from a combination of Sun Hardware, Solaris Operating System, ATG Dynamo application server, and Stronghold Web Server to more cost effective open source equivalents including Linux on Intel hardware, JBoss EJB Container, Tomcat Servlet Engine and Apache Web Server.

Modified open-source packages including Torque and mod\_jk for SoftCoin’s use.

### **Engineer, SoftCoin, Inc.; San Francisco, CA 1999-2001**

Assisted in design and development of initial version of SoftCoin’s promotion platform. Helped design, install, and configure data center comprising nearly \$2,000,000 of hardware and software assets.

Served as secondary Systems Administrator installing and configuring Solaris, Linux, Apache, Oracle, ATG Dynamo, and JVMs.

### **Consultant, Mann Consulting; San Francisco, CA 1998-1999**

*Mann provides a variety of outsourced IT services to clients ranging from home offices to some of San Francisco’s largest advertising agencies.*

Performed consulting services including phone support, on-site diagnostics and support, research, and preventative maintenance. Provided network installation, implementation, and troubleshooting services. Prepared and formally presented service contracts to new clients.

## **EDUCATION**

University of the Pacific, Stockton, CA    B.S. Computer Science, 1998

## **PERSONAL PROJECTS**

### **Empeg Ext3**

The empeg is a commercial car stereo released in 2000 that runs a minimal version of the linux operating system. By default it uses the ext2 filesystem which can allow file system corruption in a system that loses power frequently like a car stereo. The linux kernel used by this device is open source, but differs somewhat from the linux 2.2.14 kernel it is based on. For this project I updated the empeg kernel to include all changes up to linux 2.2.17 and then backported the ext3 journaling filesystem from a later version of the linux kernel to provide ext3 support on the device. My changes were then released to the empeg development community for others to build upon.

### **Empeg daapd**

Ported the open-source daapd streaming music server (now known as Firefly) to the empeg car stereo. This allows the empeg to stream music to any computer running iTunes. This project involved optimizing parts of the daapd codebase to function with significantly less available memory than originally intended.

### **Other open-source projects**

Other open source projects are available from my web site at: <http://macgeek.dyndns.org/software>