

ROBERT NICHOLSON

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BACKGROUND

For most of my career, I held a series of increasingly responsible engineering management positions, including director-level roles in large companies, and VP positions in Internet start-ups.

Since 2001, I've been providing strategic consulting and hands-on software development services. This has allowed me to work with a wide range of technologies and business models. Most recently my focus has been on Internet consulting, and architecting and developing web applications.

Languages and Skills: PHP, C/C++, JavaScript, MySQL, Oracle, full-stack LAMP development, WordPress plugin development, Internet application architecture, scalable systems, e-commerce system development, PCI Security implementation and compliance, expert system (AI) development.

SELECTED JOB HISTORY

Co-Founder, VP of Operations, Corporate Secretary and Treasurer – 2005- RATINGZ INC

Work in Java, PHP, JavaScript, and MySQL developing specific features for the system. Negotiate partner agreements. Manage ad sales, ad server system, and SEO and Internet marketing efforts.

- Built sites to first-page positions for half a dozen categories, including Lawyer Ratings, Veterinarian Ratings, Camp Ratings, Childcare Ratings.

Co-Founder, VP of Technology, Corporate Secretary and Treasurer – 2002- LUNAGRAPHICA INC

Under the umbrella of LunaGraphica, I provide development and strategic consulting for small to medium businesses and Internet startups, while directing the web services operations for the company.

- Developed a job tracking and management system that has handled more than 10,000 jobs.

Responsibilities and positions have included:

- Developed a specialized content management system (SiteDJ) to allow entertainment venues, art organizations, and event-based businesses to manage dynamic web content. The system has since proven more flexible than originally envisioned, and is now used to manage sites for companies as diverse as law firms and construction companies, and multi-lingual sites incorporating English, Spanish, Japanese and Chinese content. Written in C/C++.
- Worked on PHP and JSP development and system administration for RateMyTeachers.com, and provided business and technology consulting for RateMyProfessors.com, RateMyTeachers.com, and RateMDs.com
- Performed search engine optimization, and set up and managed Internet marketing and pay-per-click advertising programs for LunaGraphica clients.
- Depending on client requirements, most LunaGraphica development projects are written in PHP, C/C++ or Java in a Linux / Apache environment, using a MySQL database. Content management solutions have included Drupal, Joomla, WordPress, and our own SiteDJ.

Board member & business advisor, Argos Security Inc, a Sarbanes-Oxley consulting company.

Board member for OVCA, a non-profit California arts corporation.

Strategic Advisor / Contract Developer – FATDOOR INC 2013-2014

Provided technical and business advice, software development services, and outsourced development management for a privately funded Internet startup.

Developed web software in PHP; wrote technical specifications for web and mobile apps; managed outsourced development of mobile apps for IOS and Android.

Interim CTO and Business Advisor – FORUM FOR DEMOCRACY 2007-2009

Co-wrote functional specifications and managed offshore software development and local QA.

Interim CTO – HOMEPEOPLE CORPORATION (99vine.com) 2007-2008

Wrote functional specification for social networking and real estate search platform. Managed outsourced development in India and the United States. Recruited and supervised initial staff.

Architect / Developer – CONSUMER BANKRUPTCY COUNSELING 2007-2014

Developed an expert system to provide online bankruptcy counseling for ConsumerBankruptcyCounseling.info, a project of the Tides Center. After extensive review, the system was approved for deployment by the Trustees Office of the United States Department of Justice in 2008.

Added a second service, post-filing debtor education, in December 2013.

Technical: Written in C/C++ in a Linux / Apache environment. The expert system engine was derived from a product I developed in 1986.

- At its peak, the site provided approved counseling for approximately 10% of the bankruptcy applications in the United States.

VP of Engineering – RED HERRING, a venture-funded startup company 2000-2002

As VP of Engineering for RedHerring Online, led the development of core technologies for the RedHerring.com, StockMaster.com and JustQuotes.com websites. This rich family of sites supported live data feeds, incoming news feeds, outbound content syndication and cobranding, e-mail newsletters to over a million members, personalization, and combined site traffic of well over 50 million pages per month. Managed a staff of 30 (including StockMaster and Red Herring engineering staff), until financial problems required the company to shut down the engineering department. Supervised transition to outsourced website management.

- Put in place a scalable, replicated database architecture, multiplying system capacity by 4X and eliminating downtime due to database failures.
- Reduced hardware requirements by 50% by embedding stock chart generating and caching into an http server.
- Provided functional integration of the StockMaster and Red Herring sites via automated content exchange.
- Defined a uniform architecture for syndicated content acquisition and delivery, eliminating custom code previously required for each content partner.
- Evaluated several application server platforms and began migration from a Perl code base to a J2EE / Dynamo platform; in parallel shifted from Informix Oracle Parallel server.
- Migrated existing content management system to InterWoven Teamsite.

VP of Engineering - INTERSURVEY, a venture-funded startup company 1999-2000

As VP of Engineering, led the development and deployment of the company's core technologies. InterSurvey managed a panel of over 50,000 households who regularly participated in web-based

surveys for consumer product companies. Responsible for engineering, QA, and operations.

- Designed a survey creation process using XML authoring tools (including creation of a DTD for a new survey language).
- Created a survey delivery system using Java servlets running on Solaris 7; data was stored in an Oracle 8 Enterprise database.

Senior Manager/Acting Director - SUN MICROSYSTEMS 1996-1999

Senior Manager/Acting Director for the ISP Hosting products, including the development of Solaris for ISPs, Sun WebServer, Sun Internet FTP, Sun Internet News Server, and related ISP products and technologies. As a member and later chairman of the ISP steering committee, set the strategic direction for this line of business. Managed a staff of 50, including development, QA, documentation, support, and program management. This product line was shut down when Sun acquired the Netscape product family, and formed the iPlanet joint venture.

- Released the *Sun WebServer*, the highest performance web server available at the time. Improved throughput by embedding server page caching in the Solaris TCP/IP stack. Sun WebServer (SWS) was the first web server outside of JavaSoft to support Java Servlets and Java Server Pages (JSP).
- Released the *Solaris for ISPs* application package, including Sun WebServer, Sun Internet FTP Server, Sun Internet News Server, Sun Performance Monitor, and an integrated management console using CORBA to communicate with and manage the servers (aimed at the ISP hosting market).

Engineering Department Manager - IDS, an SGI / AT&T joint venture 1994-1996

Managed the development, test and deployment of a commercial interactive television system for Cablevision of Long Island, and interactive games development for NTT in Tokyo. Led a team of 20, including engineers, interface designers, media professionals, and writers in developing software for a new interactive TV architecture. This joint venture was dissolved by the parent companies in response to financial problems.

- Delivered a fully functional, low-cost interactive TV system supporting NVOD (Near video-on-demand), e-commerce, and parental control.
- Converted SGI's CORBA-based client-server architecture to a server-side system with "dumb clients" to reduce cost of deployment.

Director of Multimedia Software, ORACLE CORPORATION 1988-1994

As manager and later director of multimedia tools, produced a platform independent, object-oriented user interface toolkit, implemented on X-windows, Macintosh, Microsoft Windows, Presentation Manager, DEC Windows, and character mode terminals. Responsible for the company's multimedia tools strategy and development efforts, including online documentation and SGML products. Managed a staff of 20+ people.

- Released the industry's first fully functional cross-platform graphic user interface and multimedia toolkit. Written in C, with proprietary object-oriented language extensions.
- Prototyped, developed and released an SGML-based document publishing system and viewer.

Architect / Lead - PLEXUS COMPUTERS, a venture-funded startup 1987-1988

Architect and project leader for a multimedia archival information system for Syracuse University.

- Implemented the first of its kind shared work environment for researchers incorporating document scanning, optical character recognition, indexing, annotation, and searching. Designed a multimedia storage system using writeable optical media. Implemented a hyperlinked document system well before the advent of the World Wide Web. Written in C on Microsoft Windows (client) and Unix (server).

Founder / Owner - COGNITIVE CONCEPTS, a sole proprietorship **1986-1987**

Created and marketed expert systems software for desktop computers. Developed a business plan, defined / designed products, hired & managed contractors, and wrote about 75% of the software.

- Created the first commercially available expert system development environment to incorporate full tracing and debugging facilities. Written in C on Macintosh and ported to Unix.

Manager - SYDIS INCORPORATED, a venture-funded startup **1982-1985**

Designed and managed the development of application software an integrated system office automation, voice messaging and telephone system.

- Defined a graphical desktop environment that anticipated the design of modern office systems. Designed an application architecture and framework to allow applications to be incorporated into this environment. The framework included extensible support for new document and media types. Written in C on a Unix platform.

Senior MTS - HEWLETT-PACKARD **1976-1982**

Designed and led the development of programmer tools for transaction-oriented applications.

- Technical: created a new “transaction by example” language and system for transaction-based applications, based on the work of Moshé Zloof and others at IBM research.

EDUCATION

MS, Electrical Engineering (Computer Engineering option), Stanford University
BS, Computer Science (with Honors in English), California State University, Chico
Formal Management training programs at HP, Oracle, Silicon Graphics, and Sun Microsystems.

PATENTS

A Hyperlocal Rating Service (pending) – Filed October, 2014.

SELECTED PUBLICATIONS

California Mission Guide, WYGK Press. (Book) July 2014
Effective Websites for Artists and Art Groups, 2nd Edition, WYGK Press. (Book) June 2010
Marketing Art on the Internet. ArtCalendar magazine. May 2008
Effective Websites for Artists and Art Groups, WYGK Press. (Book) April 2006
Parallel Processing and Web Server Scalability. SunWorld Conference. June 1999
Electronic Publishing With Oracle BookViewer. Oracle Corporation. June 1991
Providing Portable Multimedia Support Through the Oracle Toolkit. American Society for Information Science Mid-Year Meeting. April 1991
An Object Storage Facility for the HyperBook System. American Society for Information Science Mid-Year Meeting (with Walter Chang). April 1991
Design Principles for a Platform Independent GUI Toolkit. Dr. Dobb's Journal. January 1991
The Oracle Toolkit: Bridging the GUI Differences. Oracle Corporation. January 1990
Designing Multinational Applications. IEEE International Conference on Computers and Applications. Beijing, China, 1987 (with Karen E. Chez). June 1987
Usage Patterns in an Integrated Voice and Data Communications System. ACM Transactions on Office Information Systems. July 1985
Sydis Application Programmer's Workbook. Sydis, Incorporated. July 1985
Sydis User Interface Standards. Sydis, Incorporated. January 1985
The Clipboard Data Interchange Facility. USENIX Winter Conference Proceedings. January 1985

Integrating Voice in the Office World. Byte magazine. December 1983

Goblin: a Small System Fantasy Game. Personal Computing magazine. December 1980

Creating a Fantasy World on the 8080. Byte magazine. July 1980

Planned Programming. Personal Computing magazine. June 1979

ATOM: a Component Approach to Software Systems Design. IEEE Spring CompCon (with Karen E. Chez). April 1979