

# Ben Martz

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## Objectives

I would like to work with a development team that tackles and solves difficult challenges on constant basis. My medium-term goal is to then to move up and lead a hand-picked team of developers that specialize in saying “we can do that” where other teams have said “that’s impossible.” The long-term goal of this team is to demonstrate prompt and competent response to corporate needs and to make a measurable improvement in the profitability of our company.

## Specialities

Software architecture and development; user experience/interface design; hardware virtualization and emulation; kernel and kernel driver development; database application development; TCP/IP software development; TCP/IP network design and deployment.

## Patents

Traut, E.P., Martz, B., “System and method for displaying images of virtual machine environments,” U.S. Patent 7506265, 2009.

## Recent Experience

### **CHIEF SOFTWARE ARCHITECT, PORTALSOFT, INC., MOUNTAIN VIEW, CA (2008-PRESENT)**

Startup spin-off from JP Research to continue development of the Portal4Law legal case and document management system; led a team of developers to re-architect and develop entire product as a client/server model using Microsoft .NET 2.0; developed algorithm to accurately extract page and line numbers from a variety of text-based legal transcript formats; developed multi-threaded background modules for content OCR and indexing; developed methodology for the accurate extraction of text from legal transcript and deposition PDFs regardless of inaccurate column layout by off-the-shelf OCR software; designed and developed new version of server to allow for scaling of any tier with persistent near-realtime event dispatching via the backend data store; designed and led development of a new client written in Silverlight 4 using WCF RIA services with an ASP.NET middle tier that proxies communication with the backend server; designed and developed client code that allows automatic generation of a robust Silverlight data editor user interface at runtime based on the underlying data models; led development of extending WCF RIA service endpoints to support SOAP for mobile device client development using jQuery.

### **PROGRAMMER/ANALYST, JP RESEARCH, INC., MOUNTAIN VIEW, CA (2004-2008)**

Designed and developed custom solutions for analysis of unique data sources; developed SAS programs to merge and analyze state and federal accident databases; designed and developed a relational case and document management system in Microsoft Access with more than 25,000 lines of Visual Basic code and key features including an original user interface design (including artwork), relational keyword searches, WIA and TWAIN based document scanning, interface with Adobe Capture (for OCR) and integration with Lucene (an open-source indexing and search engine); developed Excel/VBA toolsets to facilitate organization and analysis of accident reports; planned and deployed a complete small business network including custom-built RAID 5 storage servers, wireless network access, remote desktop access, Microsoft Small Business Server and Microsoft Exchange Server.

### **RESIDENTIAL CONSTRUCTION, BAY PROSPECT VENTURES, SAN JOSE, CA (2002-2004)**

Took a bit of a “break” here to get my body back in shape; demolition, foundation, framing, electrical and finish work to restore a Victorian house and barn in Santa Clara, CA for a family friend who now resides there.

### **SOFTWARE ENGINEER, CONNECTIX CORPORATION, SAN MATEO, CA (1999-2002)**

Architecture and development work on sub-systems for Virtual PC for Windows, Mac OS, and Linux including the dynamic compiler, video, networking, chipsets and user interface; designed and developed a mechanism to allow virtual machines to present a “real” presence on a SMB/CIFS network while sharing the host network connection; co-designed and developed a Layer 1 and 2 “virtual switch” architecture (including a NDIS driver) to enable virtual machines to present a “real” presence (registered vendor MAC prefix of 03ff) on the host machine’s network and route isolated traffic appropriately; designed and developed DirectX and MMX/SSE accelerated video blitters; co-authored a Windows kernel-mode driver to allow the Virtual PC hypervisor to run above a Windows host; developed a Linux kernel module to allow the Virtual PC hypervisor to run above a Linux host; developed CodeWarrior plug-ins to integrate with third-party compilers including NASM; co-developed host debugging sub-system that allowed single machine debugging of live hypervisor exception handlers.

## Publications

Padmanaban, J., Martz, B., Salvage, J.T., "Evaluation of Light Vehicle Side Underride Collisions into Combination Trucks," *SAE Int. J. Commer. Veh.* 1(1): 473-480, 2008.

## Presentations

Martz, B. “Software Startup Concepts.” MGP 241 New Product Development. UC Davis Graduate School of Management, San Ramon, CA. Feb. 2009.