

Daniel D Grassi

Software Developer/Architect

Resume

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**Experience Summary**

<b>Software Engineering:</b>	Apple MacOS Cocoa, Objective-C/C/C++, XCode Apple iOS (iPhone/iPad) and CocoaTouch MySQL, SQLite, Python, XML, HTML, CGI, Assembly, Shell, YACC, Fortran ATT Unix, Linux, OS X Darwin, Mac OS (legacy)	11 years 4 years 17 years
<b>Professional Interests:</b>	Refactoring, UML and Design Patterns	
<b>Conferences:</b>	Apple WWDC (World Wide Developer Conference) 2003 through 2011	9 years
<b>Development Areas:</b>	Mass market consumer applications Project architecture Kernel I/O device drivers, userland device drivers Database design Cryptographic design and security risk assessment	10 years 20+ years 20+ years 15 years 5 years

<b>Zaph, LLC.</b>	<b>Position: 2008 – present</b>	<b>Owner</b>
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<b>Highlights: Selected iPhone Applications:</b>	Development of several iPhone apps currently in the Apple App Store. Hurricanes: Tracking and current storm information aggregation Lap Speed: Calculates speed per lap given a track length. Crazy Sage: Creates crazy proverbs by randomly mixing two proverbs together. CardKing: Provides loyalty card scanning and access on an iPhone. Citrix Receiver: provides the same functionality as the PC/MAC version.
<b>Zaph, LLC. Citrix, Inc:</b>	Scoptec: A cognitive development educational program aimed at pre-school children. Development of the Citrix Receiver for the iPhone and iPad iOS apps. The iPad app was in the app store on day 1 and is currently the #3 Free Business app in the iTunes store. Worked on authentication, XML parsing, memory usage, GUI, architecture and best practices for coding and design.
<b>Marware, Inc: Platforms, Technologies and Tools:</b>	Development of ProjectX, a project management application, Cocoa with CoreData iPhone API, Cocoa API, Mac OS X, Objective-C, Xcode,.

<b>Lexar Media, Inc.</b>	<b>Permanent Position: 2002-2007 - 5-1/2 years</b>	<b>Senior Software Architect</b>
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<b>Commercial Products:</b>	<p><b>SafePSD S1100:</b> Enterprise level secure removable flash storage through access control and hardware on device encryption. Implemented OS X access API and libraries, user application and auto-launch daemon.</p> <p><b>Image Rescue 1, 2 &amp; 3:</b> Application for Apple Macintosh that recovers images from damaged or erased flash cards. Responsible for the design of recovery algorithms, plug-in extensibility for image formats and code implementation.</p> <p><b>MSC Lock:</b> A new USB lockable storage specification. Technical contributor to the specification.</p> <p><b>Active Memory:</b> Method to provide meta information that is persistent across complete flash memory card data erasure..</p> <p><b>LockTight:</b> Secure flash memory card, camera and reader system. Architect of the security architecture covering the camera, memory card, card reader user and administration applications. Implemented the OS X applications</p>
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**SafeGuard 1 & 2:** Secure removable flash drive security through access controls or data encryption.

**Device Drivers:**

Kernel based SCSI vendor specific command I/O device driver, kernel based AES encryption driver, userland USB vendor specific command device driver - PowerPC & Intel

**In House:**

Created a fully automated one click build system from compile to installer. Developed a bug tracking system, developed a prototype file archive and retrieval system. Developed a Python program to convert Flash memory card firmware assembly code from 8085 to 186.

**Platforms, Technologies and Tools:**

Mac OS X 10.1-5, Xcode C/Objective-C, Interface Builder, Cocoa API/Framework, user-land and kernel I/O device drivers, cryptography, installer and build system.

<b>IBM</b>	Contract Position: 2001 - 9 months	<b>Senior Software Engineer</b>
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**Highlights:**

**ViaVoice** voice recognition. Member of the team that created the OS X implementation, MacWorld 2001 Best of Show winner.

**Platforms, Technologies and Tools:**

Mac OS X 10.0-1, Project Builder C/Objective-C, Interface Builder, Cocoa API/Framework, installer and build system.

<b>Medifacts at FDA</b>	Position: 1994-2000 - 5-1/2 years	<b>Senior Software Engineer</b>
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**Highlights:**

**ABPM CRADA:** Project at the Cardio Renal Division of the FDA to study ABPM capabilities. Involvement included database design and creation as well as custom analysis and visualization applications. Interactive program to view experimental data, real-time high-speed data acquisition

**Platforms, Technologies and Tools:**

Mac OS 7, Metrowerks CodeWarrior C++, MPW, Classic Mac Toolbox API.

<b>CSX Technology</b>	Contract Position: 1992-1994 - 2 years	<b>Senior Software Engineer</b>
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**Highlights:**

Design and development of several customer service applications for railroad operations.

**Platforms, Technologies and Tools:**

Macintosh, MPW, SQL, C++, Object Pascal, screen scraping, CICS sessions.

<b>Applied Computer Sciences</b>	Position: 1988-1992 - 4 years	<b>Senior Software Engineer</b>
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**Highlights:**

**Bethlehem Steel Corporation:** FORTRAN subroutine package to interface a MODCOMP minicomputer with Rosemont MVCU/II PIO hardware.

**SIDOR:** Distributed network of 11 MODCOMP super-minicomputers controlling Basic Oxygen Furnaces and Dual Slab Casters.

**Gulf States Steel:** Continuous caster supervisory control system and solidification and chemistry quality models.

**Modular Computer Systems:** TCP/IP group Leader, development of embedded Telnet server, async communications unix device driver, member of Real-Time unix TCP/IP attached processor port.

**Platforms, Technologies and Tools:**

**MODCOMP computer systems, assembly, FORTRAN, AWK, unix, TCP/IP.**

## Modular Computer Systems

Position: 1984-1988 - 3 years

Member Technical Staff

### Highlights:

Ported the MAX IV file manager to MAX32, designed and implemented a superset of the MAX32 file manager for a unix meta port, designed a file manager management caching scheme for MAX32, analysis of file manager performance. Design and implementation of enhancements to the file manager user interface, design of the file manager data chaining implementation. Definition of the user interface requirements between realix (MODCOMP's unix) and the underlying MODCOMP MAX32 operating system. Design and implementation of the operating system symbolic debugger.

### Platforms, Technologies and Tools:

MaxIV, Max32, unix file manager architecture, Assembly, XPL

## Organizer for CocoaHeads and Cocoa Developers group in Fort Lauderdale CocoaHeads

### Presentations Given:

Cryptography in iOS and OSX

Grand Central Dispatch

Cocoa Blocks

Coding "Best Practices" for developing code

Regular expressions including their use in iOS 4

Computer memory, allocation, usage and pitfalls

OSX and iOS reference count memory management

Unit Tests with Xcode 4.x

OCMock in Unit Test with Xcode 4.x

Xcode 4.2 and the features it brings including better refactoring and ARC

Git, Xcode 4.2 integration and remote repositories

CGPath, UIBezierPath and transforms

Finding mathematical solutions by numeric algorithm

TDD demonstrations of the Stack, Roman Numeral and Bowling Katas

## Education and Research

North Carolina State

Electrical Engineering

University of Pennsylvania

Computer Science, graduate courses in OS internals and language design.

Marine Biological Laboratory

Research Assistant, 1988 - 1999

## Recent Conferences Attended

WWDC

San Francisco 2003-2011

Voices That Matter

Philadelphia, 2010

360 MacDev

Denver, December 2010

NSConference

Reading, UK, 2010

CocoaConf

Columbus, 2010

Mac Tech

Los Angeles, 2010