

# Duncan Oliver

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I'm currently a freelance programmer dealing primarily in Objective-C and HTML. I went to Kansas State University for Electrical Engineering with a focus in Digital Electronics. I have fifteen years of personal experience in programming and eight years experience Objective-C and Cocoa programming.

## Education

*Kansas State University*

Bachelor of Science, Electrical Engineering

## Skills

- ◆ Languages: Objective-C, C++, JavaScript, JSON, HTML, CSS, XML
- ◆ APIs, Frameworks, SDKs: Cocoa, Core Data, iOS4
- ◆ Architectures/Paradigms: Model-View-Controller, Object-Oriented
- ◆ Database: MySQL, SQLite
- ◆ Tools: XCode, Interface Builder, Dashcode, Microsoft Visual Studio

## School Experience

*C Programming for Engineers*

This is an introductory programming class for engineering students. The curriculum teaches the basics of programming in any language. Coursework includes lessons on variables, data types, and functions.

- ◆ Learn the syntax of C and C++
- ◆ Understand how to use an IDE (Microsoft Visual Studio)
- ◆ Learn the use of pointers, filesystem access, and libraries

*Microcontrollers*

This course teaches students low-level programming using Motorola microprocessors. Students learn to use both VHDL and assembly language to drive hardware components for various small projects.

- ◆ Learn low-level programming concepts such as registers and bit arithmetic
- ◆ Interface with hardware components like buttons, LED lights, and numeric LCD displays

*Tutor*

*August 2006–May 2009*

This was a part-time job where I aided students enrolled in C Programming for Engineers (and Engineering Physics). I helped explain concepts as they applied to the homework and helped prepare students for test by reviewing those concepts.

- ♦ Explain high-level concepts in a way non-programmers/beginners understand
- ♦ Debug programs and explain the meaning behind compiler errors

### **Projects (code, screenshots available on request)**

*Age Display*

Age Display is a plug-in for Address Book in Mac OS X. It uses the date in a contact's birthday field to quickly return the contact's age in a contextual menu. This plug-in uses the built-in extension architecture and is written in Objective-C.

- ♦ Uses built-in architecture to tie into Address Book
- ♦ Uses NSDate (deprecated) for age calculation

*Dashwar*

Dashwar is a dashboard widget for Mac OS X for Weewar.com, an online game. It uses the Weewar API to get a list of active games for a user. It can also notify users when it is their turn in any of their active games.

- ♦ Uses CSS and HTML for display
- ♦ Uses third-party API (Weewar API) to access game information
- ♦ Uses third-party API (Growl) to display turn notifications

*Pager*

Pager is a Safari Extension for Safari 5 that checks a page periodically for changes. Users add a page to the Pager toolbar and set an update interval. The extension changes the color of the page title in the toolbar to notify the user of a change.

- ♦ Uses JavaScript, HTML and CSS for toolbar
- ♦ Uses HTML5 (localStorage) for storing page information

*Compass*

Compass (working title) is an application for Mac OS X that allows users to manage bookmarks. Users organize bookmarks through textual tags instead of folders and can set bookmarks to open in specific applications rather than the user's default browser. Users can browse bookmarks by title, tag or thumbnail.

- ♦ Uses CoreData for storing bookmark information
- ♦ Uses status items (menu bar icons) for displaying various commands
- ♦ Uses WebKit and ImageKit libraries for saving archives and thumbnails of bookmarks

### *Sandhill*

This application is an iPad conversion of Sandhill's video tutorial website. It displays a list of different "courses" on the use of one of their products. The detail view for each course lets the user jump to a specific section of a video.

- ◆ Uses XML (property lists) to define course items
- ◆ Plays mp4 video

### **Reference**

Tom Bulatewicz  
Nosleep Software  
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Emily Wilcox  
Retention Program Coordinator  
Women in Engineering & Science Program  
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