

Samantha Demi Marshall

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Technical Skills

- Writing
 - Books
 - Co-author on second edition of "OS X Internals: A Systems Approach" (in progress)
 - Documentation
 - [Migrating Code Signing Configurations to Xcode 8](#)
 - [Building Python modules on CircleCI OS X instances](#)
 - [Xcode Build Locations](#)
 - [Managing Build Settings and Avoiding pbxproj Conflicts](#)
 - [Introduction to iOS Development](#)
 - [Linking Objective-C Code](#)
 - [Converting Static Libraries to Dynamic Libraries for iOS](#)
 - [The Xcode Build System](#)
 - [PBXProj Identifiers](#)
 - [OS X, Python, and the readline module](#)
 - [Using Xcode Targets](#)
 - [Codesigning Introspection Commands](#)
 - [Xcode SDKs](#)
 - [Unofficial Guide to xcconfig files](#)
 - [Xcode Build Settings Reference](#)
 - [Xcode DerivedData Hashes](#)
 - [Managing Xcode](#)
 - [Static and Dynamic Libraries](#)
 - [Embedding Content with Swift in Objective-C](#)
 - [Reverse Engineering Fitbit BLE Protocol](#)
 - [Blocking Code Injection on iOS and OS X](#)
- Speaking (on hiatus since 2016)
 - AltConference ([2014](#), [2015](#))
 - ÆR Conference ([2014](#))
 - MacTech Conference ([2013](#), [2014](#))
 - Cocoaheads Boston ([2013](#), [2014](#), [2015](#), [2016](#))
- Programming Languages (ranked by proficiency)
 - Objective-C
 - C
 - Python
 - Nim
 - Go
 - AppleScript
 - Ruby
 - Swift
 - x86 Assembly
 - Javascript
 - C++
- Frameworks
 - Cocoa (Interfacing with Objective-C, Swift, AppleScript, Python, and Nim)
 - CocoaTouch (Interfacing with Objective-C and Swift)
 - CUDA (Interfacing with C)
 - OpenGL (Interfacing with Objective-C, C, and C++)
- Projects
 - [pbPlist](#), an all-purpose plist library written in Python that allows reading and writing of ASCII/NeXTStep Property Lists.
 - [bsl-validator](#), a interpreter for Bungee Scripting Language (written in C)
 - [nslocalizer](#), a tool for finding missing and unused NSLocalizedStrings (written in Python)
 - [pyconfig](#), a DSL for building and managing xcconfig files easily (written in Python using pyparsing)
 - [xcparse](#), an implementation of the Xcode build system (written in Python)
 - [aosd](#), a tool for downloading packages available from [opensource.apple.com](#) (written in Python)
 - [SDMMobileDevice](#), Reverse Engineered from Apple's private framework for iOS device management and low level communication
 - [x86engima](#), World War 2 German Enigma Encryption Machine (written in x86 Assembly)
 - iOS 5.x and 6.x [tethered jailbreak](#) (based on p0sixspwn)
- Build Systems
 - Xcode (iOS and OS X)
 - Gradle (Android)
 - CMake (Multiple architecture and platform configurations)
 - Make (Multiple architecture and platform configurations)
 - Autotools (Multiple architecture and platform configurations)

Work Experience

- Ruby Engineer, MLB Advanced Media L.P., February 2017 to Present
 - Build & Release Engineering, Supporting Mobile App Development
 - Maintained CI instances (Jenkins) and developed new interfaces to control build jobs
- Build Engineer, iRobot Corporation, August 2016 to December 2016
 - iRobot Home App ([App Store](#))
 - Maintained CI instances (Jenkins) for the Software Applications team
 - Integrated C++, Android, and iOS unit tests with internal CI service (Jenkins)
 - Automated release procedures for iOS and Android applications
- iOS Developer, iRobot Corporation, April 2015 to August 2016
 - Ava 500 Control App ([App Store](#))
 - Implemented new UI and features for an app to control a telepresence robot
 - Maintained a build server for doing daily builds for internal SQA testing
 - iRobot Home App ([App Store](#))
 - Managed build system tooling for the mobile development team
 - Created on-boarding UI for setup of Braava-Jet
- Build System Engineer, CocoaPods Project, September 2014 to Present
 - CocoaPods ([ruby.gem](#))
 - Assisted with changes to the integration process with Xcode
 - Debugging issues with third party developers
- Mac Developer, Flexibits, May 2014 to July 2014
 - Fantastical 2 for OS X ([Homepage](#))
 - Extensive work with date/time programming
 - Implemented communications with iCloud CalDAV service
 - Prototyped implementation of geo-fencing for reminders
- iOS Developer, Chaotic Moon Studios/Marvel Studios, September 2013 to April 2014
 - Marvel Unlimited ([App Store](#))
 - Rapid prototyping of client designs
 - Integration of third party frameworks (audio and video media integration)
- Mac Developer, Feral Interactive, May 2011 to Present
 - Oni ([Homepage](#))
 - Updated deprecated code from PPC to run on Intel platform
 - Implemented new engine features with collision detection
 - Updated existing graphic engine to take advantage of modern hardware
- iOS Developer, American City Business Journals, August 2012 to December 2012 (internship)
 - American City Business Journals ([App Store](#))
 - Extensive UX design on ACBJ mobile app for iOS
 - Creation of mobile app for iPad
 - Refactor of existing mobile app code to improve performance
- iOS Developer, Survey.com, January 2012 to May of 2012 (internship)
 - Survey.com ([App Store](#))
 - Refactored the UI of the iPhone application
 - Implement new controls for taking surveys in the app