# Samantha Demi Marshall

#### Contact

- e-mail: hello@pewpewthespells.com
- website: <a href="https://pewpewthespells.com">https://pewpewthespells.com</a>

### **Technical Skills**

- Writing
  - 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
    - <u>Converting Static Libraries to Dynamic Libraries for iOS</u>
    - The Xcode Build System
    - <u>PBXProj Identifiers</u>
    - 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
  - Languages
    - English (Native Language)
    - Spanish
    - Japanese
- Speaking (on hiatus since 2016)
  - AltConference (2014, 2015)
  - Command+R Conference (2014)

- MacTech Conference (2013, 2014)
- Cocoaheads Boston (2013, 2014, 2015, 2016)
- Programming Languages (ranked by proficiency)
  - Objective-C
  - $\circ C$
  - $\circ$  Nim
  - Python
  - $\circ$  Ruby
  - $^{\circ}$  AppleScript
  - $\circ$  Groovy
  - Swift
  - ° Go
  - ° x86 Assembly
  - Javascript
  - $\circ$  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++)
- Code Projects
  - <u>pbPlist</u>, an all-purpose plist library written in Python that allows reading and writing of ASCII/NeXTStep Property Lists.
  - <u>bsl-validator</u>, a interpreter for Bungie Scripting Language (written in C)
  - <u>nslocalizer</u>, a tool for finding missing and unused NSLocalizedStrings (written in Python)
  - <u>pyconfig</u>, a DSL for building and managing xcconfig files easily (written in Python using pyparsing)
  - <u>xcparse</u>, an implementation of the Xcode build system (written in Python)
  - <u>aosd</u>, a tool for downloading packages available from <u>opensource.apple.com</u> (written in Python)
  - <u>SDMMobileDevice</u>, Reverse Engineered from Apple's private framework for iOS device management and low level communication
  - <u>x86engima</u>, World War 2 German Enigma Encryption Machine (written in x86 Assembly)
  - $^{\circ}$  iOS 5.x and 6.x tethered jailbreak (based on p0sixspwn)

- Infrastructure
  - 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)
  - Jenkins
    - Building custom extensions
    - Managing build jobs (using Pipelines and Job DSL)
  - Telemetry & Reporting
    - InfluxDB + Telegraf + Graphana
    - ElasticSearch + Logstash/Beats + Kibana
  - Servers & Containers
    - Familiar interacting with AWS EC2
    - Heavy use of Vagrant and Docker for testing and application deployment

#### **Work Experience**

- Ruby Engineer, Disney Streaming Services, February 2017 to August 2019
  - Build & Release Engineering, Supporting Mobile App Development
    - Maintained CI instances (Jenkins) and developed new interfaces to control build jobs
    - Migration from Jenkins Job DSL to use Jenkins Blue Ocean and Pipelines
    - Wrote documentation for internal build tooling and iOS Swift frameworks
    - Contributed to transition from Carthage to internal tool for handling iOS app dependencies
    - Constructed internal telemetry for jenkins servers as well as internal application deployment
- Mac Developer, Feral Interactive, May 2011 to Present
  - Oni (<u>Homepage</u>)
    - 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

- 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 (<u>App Store</u>)
    - 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 (<u>App Store</u>)
    - 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 (<u>ruby gem</u>)
    - 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 (<u>App Store</u>)
    - Rapid prototyping of client designs
    - Integration of third party frameworks (audio and video media integration)

• 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)
  - Survery.com (<u>App Store</u>)
    - Refactored the UI of the iPhone application
    - Implement new controls for taking surveys in the app

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