# Andrew McKnight

# Résumé

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# Experience

#### 1.5 years iOS Developer, Twitter, Cambridge, MA.

- Deliverables: Crashlytics/Fabric SDKs, Mac app and command line tools
- Streamlined build and release processes with TeamCity agents deployed via Chef
- Implemented Bitcode and tvOS compatibility in SDKs
- Standardized configuration of all Xcode projects, and open sourced FABConfig
- Distributed realtime and batch processing of incoming data in Java microservices
- On-call rotation for front- and back-end reliability
- Customer support on various ticketing systems and public forums

#### 3 months iOS Developer, MC10, Cambridge, MA.

- Companion iOS app for wearable peripheral with BTLE link
- Moved all app/demo code into Git repos, no previous SCM
- Architected SDK and app codebases from the ground up
- Spearheaded Agile implementation for mobile team
- Set up continuous integration and deployment with TeamCity and Fabric

## 1.5 years iOS Developer, Raizlabs, Boston, MA.

- Care.com: service seeker/provider matching (4 months)
  - Coded redesigned job posting workflow for iOS 7 launch
  - Designed/implemented perspective zoom effect for horizontal paged scroll view
- B&H Photo: e-commerce (5 months)
  - Created home and product detail areas for iPhone launch with parallactic scrolling
  - Push notifications and animated deep linking throughout app
- UniFirst: interactive enterprise sales catalog on iPad (8 months)
  - Drag and drop editing of clothing selections on models
  - Multiple core data models
  - PDF report generation
- Invaluable: realtime high-end auction platform on iPad (1 month)
  - Paging of API result display in table/collection views
  - Many small UI tweaks and bugfixes

#### 3.5 years iOS Developer, Insight Therapeutics LLC, Norfolk, VA.

- ClotRx & DementiaRx: reference e-pamphlets
  - Static, searchable, bookmarkable HTML presented in webviews
  - Interactive clinical surveys, print/email report generation
- Antibiotic Kinetics: antibiotic dosage calculator
  - Ported from existing Android app
  - Type-ahead error checking, data/state persistence, graph drawing

## Education

## 2013 M.Sc., Dept. of Computer Science, Old Dominion University.

- Research in bioinformatics, robotics, image processing and meshing
- Thesis: Protein Loop Length Estimation from Medium Resolution CryoEM Images
- Three published papers with two conference presentations
- C++ programming TA for three semesters

#### 2012 B.Sc., Dept. of Computer Science, Old Dominion University.

- Minor in actuarial mathematics
- Co-led winning senior seminar group developing traffic analysis iOS app

#### Skills

#### Languages

Swift/Objective-C, JSON/XML/YAML/Protobuf, Bash, SQL, Java, Ruby/Rails, C/C++, Python, CSS/SASS, HTML, LATEX

#### **Apple Specialties**

Accelerate, Accessibility, Cocoapods/SPM, Core Animation, Core Bluetooth, Core Data, Core Graphics, Core Location, Core Motion, Extensions, GCD, Instruments, MapKit, xcodebuild, Xcconfigs, XPC

#### Et Cetera

AWS, Boost, Cascading, Chef, CGAL, Crittercism, Fabric, Google Analytics, GSL, Graphite, Heron, TeamCity, Travis CI, Urban Airship

# Personal Projects

#### MaVec

Classes for matrices and vectors, wrapping Accelerate's functions and adding from-scratch routines. https://github.com/armcknight/MaVec

#### **Block-party**

Convert API in Cocoa that use delegate patterns into calls accepting blocks. https://github.com/armcknight/block-party

## Geomatics/Peakfinder

Augmented reality Swift framework, testing in an app for visualizing nearby mountains. Currently closed source.

#### SemVer

Swift command line tool that automates bumping versions in configuration files. https://github.com/TwoRingSoft/SemVer

# Open Source Contributions

Swift Algorithm Club (https://github.com/raywenderlich/swift-algorithm-club) Swiftline (https://github.com/oarrabi/Swiftline)