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### **PROFILE**

Experienced iOS developer, mathematician, and former commercial fisherman. I write clean, efficient, maintainable code with the goal of building apps that are accessible to everyone. I thrive when I'm working with talented people to solve hard problems.

### **iOS DEVELOPMENT EXPERIENCE**

iPHONE APP | Tomorrow 2017-2018 | Seattle, WA

- Developed, from infancy to maturity, award-winning financial planning app.
- Conceptualized with VP of Product design of custom UI to collect and present detailed financial information in a way that was easy for users to understand.
- Onboarded and trained new engineers in use of Re and ReactiveSwift to manage app state and asynchronous data flow.
- Performed daily code reviews to improve team coding standards and app performance.
- Researched and implemented numerous libraries and frameworks for use in app to quickly reach minimum viable product.
- Developed a traffic control algorithm to delay UI updates until complete, interdependent data sets had been returned by the API.
- Developed and maintained client-side business logic to determine when users had completed legally necessary tasks to generate legal documents, and to guide them through unfinished tasks.
- Coded test suite to validate data models and business logic with Quick and Nimble.
- Wrote and maintained internal documentation for build pipeline tools, including Carthage, Cocoapods, ReSwift, custom build scripts, BuddyBuild (for continuous integration testing and test build deployment), and iTunesConnect.
- Migrated project dependency management from Cocoapods to Carthage to improve Swift build times.

### **iOS PROJECTS**

iPHONE APP | Wikable 2017 | Seattle, WA

 Developed a prototype Wikipedia client in Objective C using VoiceOver and DynamicText to make content accessible to people with visual impairment.

iPHONE APP | RouteStats 1 2016 | Seattle, WA

 Developed a small app to display realtime and aggregate travel statistics using Swift, MapKit, CoreLocation, and CloudKit.

### **SKILLS**

**LANGUAGES** 

Proficient:

Swift, Objective C, JavaScript, HTML, C/C++, PERL, BASH, MySQL, IATEX Familiar:

CSS, Ruby, x86 Assembly (GNU & MASM), MongoDB, FORTRAN, PROLOG, MATLAB, Mathematica, eLISP

#### **TOOLS & FRAMEWORKS**

Xcode, ReactiveSwift, ReactiveCocoa, RxSwift, ReSwift, Moya, ObjectMapper, AlamoFire, Nimble/Quick, XCTest, UlKit, CoreData, CloudKit, SpriteKit, MapKit, CoreLocation, Git, BuddyBuild, ParseServer, Carthage, Cocoapods, Node, React, Redux, Express, AWS, Heroku, GoogleAnalytics, Fabric, Flurry, LLDB, WebPack, Browserfy, Chai, Gulp, JQuery, Subversion, TravisCI, Rails, Selenium, Bugzilla, SocketIO

#### **PROFESSIONAL**

- Fierce attention to detail
- High ethical standards
- Motivated by desire for excellent user experience
- Strong belief in collaborative process and team inclusion
- Ability to communicate technical concepts in simple terms
- Ability to recognize problems and possible solutions early
- Intuition for long-term consequences of technical decisions
- Creativity and adaptability when faced with changing requirements

### **AWARDS**

PLUG AND PLAY SUMMIT Winter 2017 | Winner

TECH CRUNCH DISRUPT 2017 | Nominee

### OTHER PROJECTS & EXPERIENCE

# WEB GAME PLATFORM | Pushes Rocks 2016 | Portland, OR

• Developed a web platform for mini-games with NodeJS, Express, and OpenShift. (Currently down for maintenance).

## BACKEND WEB DEVELOPMENT | John Hearn Consulting 2007 - 2016 | Portland, OR and Seattle, WA

 Worked with many clients to develop, test, and maintain their backend APIs using Rails, MEAN, or LAMP stacks and associated technologies.

### KICKSTARTER CAMPAIGN | papparel 2013 - 2014 | Portland, OR

• Developed a Portland-centric clothing brand sourcing locally made materials and designs.

## TEST AUTOMATION | Carbon Salon 2008 - 2010 | Eugene, OR

• Implemented and maintained automated unit and integration test suites for Rails apps with Selenium and related tools.

## ENGINE DEVELOPMENT | GarageGames 2007 | Eugene, OR

• Implemented fixed-function and clip map rendering, Mac platform port of game engine, and legacy code test suite.

# EMPLOYEE APPLICATION PORTAL | Harvey Mudd College 2006 - 2007 | Claremont, CA

- Developed PERL scripts for automated processing of online job applications, including an HTML tokenizer, automation of database tasks, and rendered HTML email forms.
- Assisted students and faculty with computer-related difficulties.

## BUGZILLA/CVS INTEGRATION | Parasoft 2006 | Monrovia, CA

 Implemented automated scripts and Bugzilla-integrated webform to associate specific CVS revisions of multi-file patches with Bugzilla tickets based on nightly tests.

### **RESEARCH**

# KOLMOGOROV COMPLEXITY | Harvey Mudd College 2005 - 2006 | Claremont, CA

 Worked with Prof. Ran Libeskind-Hadas to explore applications of Kolmogorov complexity to graph compression.

# HARVEY MUDD HUMANITIES | Research Assistant 2005 | Claremont, CA

 Assisted Prof. Richard Olson in researching sources relating to discovery and use of algebra in China during the ancient and early imperial epochs.

### **EDUCATION**

HARVEY MUDD COLLEGE BS in Mathematics Spring 2007 | Claremont, CA

UNIVERSITY OF WATERLOO Summer 2005 | Waterloo, ON Courses taken in support of thesis

BIG NERD RANCH Spring 2013 | Banning Mills, GA iOS Essentials with Objective-C

CODE FELLOWS
Spring 2015 | Portland, OR
Advanced Full-Stack Development
with JavaScript

CODE FELLOWS
Winter 2016 | Seattle, WA
Advanced iOS Development with
Swift and Objective-C

#### COURSEWORK

#### **GRADUATE**

Kolmogorov Complexity Theory of Complexity Graph Theory Analytic Number Theory

UNDERGRADUATE
Theory of Computation
Algorithms
Data Structures
Combinatorics
Number Theory
Real Analysis I & II

Abstract Algebra I & II