

AARON A ALEXANDER

FULL STACK MOBILE APPLICATIONS DEVELOPER

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INTRODUCTION

Software Developer / Designer boasting 18 years of industry experience on Apple platforms.

A versatile problem solver, I bring a multi-disciplinary skill set that encompasses Graphic Design, Full Stack Web Development, and Mobile Application Development for Android and iOS.

My experience extends to various sectors, from consumer to enterprise, and covers a broad technological spectrum, from frontend user interfaces to back-end systems, as well as embedded and web-based solutions.

My passion is creating clean/stable software, problem solving and mentoring others. I enjoy all the challenges this industry offers; delivery, leadership, technology, customer satisfaction, innovation and on-going learning.

SKILLS

Apple(iOS/tvOS/watchOS/visionOS/macOS) platforms:

Languages: Swift, Objective-C, Javascript, Python, Bash

Frameworks: UIKit, SwiftUI, MapKit, ARKit, CloudKit, WebKit, SPM, WidgetKit, Core Graphics, Core Animation, Core Location, Core Data, Core Spotlight, AVFoundation, APNS, GraphQL, XCTest, XCUITest, URLSession, GCD, CoreML, Vision, Sign in with Apple

3rd Party Tools: CocoaPods, Segment, Firebase, Bitrise, Optimizely, Github(actions), Branch, DataDog, TestRail, Realm

Architecture Patterns: MVC, MVVM, MVP, The Composable Architecture(TCA)

Web Development:

Languages: Javascript, HTML, WebGL, Python, Swift, Bash, PHP

Databases: PostgreSQL, MongoDB, MySQL

Frameworks: Node.js, React, Express.js, Next.js, Flask, GraphQL, Three.js, Tailwind, Vapor

3rd Party Tools: Docker, NPM/Yarn, Vercel, GCE(Google Cloud Engine), AWS, Github(actions), Framer, Twilio

Architecture Patterns: Redux, MVC, MVVM, MVP, PubSub

Design:

Graphic Design: App / Web Design, UI/UX, Prototyping, Typography, Color Theory, Design Systems

Print Design: Large Format Digital, Screen Printing, Color Separations and Optimizations

Digital Media: Digital Signage, Motion Graphics, Interactive Design

3D Design / Mograph: Modeling, Texturing, Rendering, Animation

Software: Photoshop, Illustrator, After Effects, Figma, Sketch, Rive, Cinema4D, Octane Render, Redshift, Houdini

Game Development:

Languages: Swift, Objective-C, C++, C#, Python, Javascript

Frameworks: Three.js, react-three-fiber, Needle Engine, SpriteKit, SceneKit, Metal, GameplayKit

3rd Party Tools / Engines: Unreal Engine, Unity, Cocos2D,

EXPERIENCE

Ghost Management Group (Weedmaps) - Irvine, CA

Staff iOS Engineer 07/2016 - 06/2023

Lead iOS developer responsible for the health, stability, and deliverability of the Weedmaps iOS application.

Responsibilities include

Individual contributor tasks, ticket decomposition, collaboration with PMs and designers, UI/UX prototypes, developing automated test suite, pair programming, pull request reviews, platform performance optimizations, App Store publishing and policy conformance.

Achievements:

Delivery Team(Online Ordering) - Lead team and project adding Online Ordering capabilities to Weedmaps app. Using a mixture of UIKit, WebKit, and SwiftUI along with GraphQL afforded rapid iteration and features such as order tracking, shopping cart, chat, and order history updates, and live activity widget.

Skills: Swift, UIKit, SwiftUI, Combine, CoreLocation, WebKit, JavaScriptCore, CoreAnimation, CoreGraphics, WebSockets, URLSession, WidgetKit, Live Activity, APNS(Apple Push Notification Service), User Notifications, GraphQL, WebSockets

Ads Team(WM Ads) - Lead iOS development on ad platform team building new in house ad service which drove all regional homepage and search ads for Weedmaps. Using a combination of Swift along with low level Objective-C runtime features to measure impression and click tracking analytics app-wide.

Skills: Objective-C, UIKit, Swift, SwiftUI, URLSession, Obj-C Runtime, Responder Chain

iOS Platform Team - Successfully grew the iOS team threefold while maintaining a 99.9% crash-free rate on high traffic application(1 million+ monthly active users).

Streamlined the internal release process for iOS software within the org via tools and custom in-house automations transforming the release cycle from eight weeks to one, lowering overall defects and increased developer velocity.

Developed custom logging and metrics gathering framework to gain visibility into obscure defects.

Designed custom application and tools for QA Team which simplified deploying and gathering tests/test results on internal applications and automating reporting them to TestRail.

Built UI framework leveraging WebKit that allowed rapidly developing hybrid views composed of UIKit, SwiftUI, and HTML(WebKit).

Developed custom Swift framework for A/B testing empowering rapid feature iteration. Built on Optimizely API.

Skills: Objective-C, Swift, SwiftUI, Combine, MVVM, Python, Bash, Bitrise, Github Actions, Slack, Segment, JUnit, TestRail, Firebase, Google Analytics, Optimizely

Additional Resources: https://techcrunch.com/2021/08/11/weedmaps-adds-in-app-cannabis-purchasing-for-iphone-users/

https://weedmaps.com/business/ads/

https://adage.com/article/news/weedmaps-launches-year-weed-experience-catalog-consumers-cannabis-habits/2327481

Lead iOS developer on team developing cutting edge teleconferencing app. Worked with product stakeholders to develop rich animations and custom interactions, design efficient multithreading implementation with core data and improved performance, and built reusable components using UIKit for features such as guided video and document sharing during a conference call.

Application stack consisted of Objective-C, UIKit and CoreData leveraging Twilio VOIP APIs. Custom interface animations in Core Animation.

I also developed a CI/CD system leveraging Jenkins to allow rapid development and testing of application.

Skills: Objective-C, UIKit, AVFoundation, CoreData, CoreAnimation, CoreGraphics, GCD, Jenkins, Twilio, Office365, Google Cloud, SVN, Phabricator

Additional Resources: https://www.linkedin.com/in/drunknbass/overlay/experience/686705356/multiple-media-viewer?

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https://www.linkedin.com/in/drunknbass/overlay/experience/686705356/multiplemedia-viewer?

profileId=ACoAAAUlmE4BpLko2BBORnoo6fl3akRMgPJjbdA&treasuryMediaId=51014537&type=LI NK&lipi=urn:li:page:d_flagship3_profile_view_base;nJvpueEYQHqtCbgrAuISWw== I joined Apperian during the acquisition of DS Media Labs in 2010, initially serving as a Senior iOS Engineer in Professional Services.

Developed various iPhone and iPad applications for clients including Newsday, U.S. Government, Clinique, Discovery Channel, and American Greetings.

Promoted to a newly formed R&D team in 2012, building tools to meet specific customer needs.

Developed a Mac Pairing Utility by reverse-engineering protocols from iTunes/ Xcode, providing local application access to private parts of the filesystem. Built Epicenter, an enterprise chat client for iPad.

Created a tool to process iOS .app binary and inject code designed to secure applications by wrapping insecure system APIs, offering features like geofencing, single sign-on authentication, and disabling iCloud backups.

Developed a Remote Desktop iOS app, enabling full remote control of the iOS device, including gesture-based OS navigation and keyboard events. The development earned a patent.

Created MDM Proxy to overcome iOS's limitation of allowing only one MDM provider per device. This tool mediated between the new and legacy MDM provider, facilitating the transition and feature utilization. The development of MDM Proxy resulted in a patent.

Skills: Objective-C, UIKit, AVFoundation, CoreData, CoreAnimation, CoreGraphics, GCD, Jenkins, SVN, MDM, Device Management, Javascript, WebKit, Python, PostgreSQL, Embedded Systems, Reverse Engineering, Android, Java

Patents: https://patents.google.com/patent/US9354849B2/en https://patents.google.com/patent/US9954728B2/en

Additional Resources: https://www.linkedin.com/in/drunknbass/details/experience/158405422/multiple-media-viewer?

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yGXgojZOjWLA==

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Burstly - Los Angeles, CA

Senior iOS Engineer 06/2009 - 08/2010

Held a multifaceted role as an iOS engineer and developer evangelist for the first open-source ad serving and mediation SDK on the Apple iOS platform. Key responsibilities included designing the admin web dashboard interface, developing the iOS SDK architecture, and ensuring seamless ad serving and mediation via automated deployment of releases.

Actively engaged with the open-source community, incorporating feedback and managing contributions to continually improve the SDK and unlocking revenue for top games and apps on Apple AppStore (including WeRule and Words with Friends). Utilized extensive iOS development and mobile advertising knowledge to shape the SDK design, prioritizing efficient ad delivery and compatibility with diverse ad networks.

Skills: Objective-C, UIKit, Objective-C Runtime, CoreAnimation, CoreGraphics, GCD, Jenkins, SVN, HTML, Photoshop, Javascript, WebKit, Python, Reverse Engineering

Additional Resources: https://techcrunch.com/2011/11/30/burstly-raises-5-5m-for-in-app-ad-management-launches-mobile-offer-mediation-for-ios-android/

Qantas - Sydney, AU

Contract iOS/WatchOS Engineer 02/2016 - 04/2016

Collaborated with an in-house team to extend the Qantas Assure iOS app's functionality to the Apple Watch.

Developed features for the Apple Watch app, including step monitoring, goal updating, and display of user standings within group challenges via BLE connection with the iOS app.

Designed the application with custom long look notifications and a Glance interface for quick access to essential information.

Skills: Objective-C, UIKit, Swift, CoreAnimation, CoreGraphics, GCD, App Extensions, WatchOS

Additional Resources: https://www.qantasnewsroom.com.au/media-releases/qantas-frequent-flyers-to-earn-points-for-walken/
https://itunes.apple.com/au/app/gantas-assure/id1081741211?mt=8

Contract macOS Engineer 01/2012 - 04/2015

Developed proprietary software for the Modbook Pro system using low-level macOS programming, adding unique features like Quick Clicks™, Quick Flip™, TRIM Support, and System Preferences.

Innovated on-screen keyboard solutions with Quick Clicks™, providing pre-login system access during boot and screensaver/sleep states.

Developed custom drivers for the Wacom digitizer and stylus to enhance the functionality of Quick Clicks $^{\mathbf{M}}$.

Integrated preference pane and launch daemons in the software suite for advanced customization and control.

Played a significant role in creating a custom touchscreen MacBook, leveraging C, AppKit, Carbon, and other vital macOS technologies.

Skills: C, Objective-C, AppKit, Cocoa, Carbon, Apple Script, CoreServices, WindowServer, CoreGraphics

Additional Resources: https://www.linkedin.com/in/drunknbass/details/experience/354357176/multiple-media-viewer?

profileId=ACoAAAUlmE4BpLko2BBORnoo6fl3akRMgPJjbdA&treasuryMediaId=50064143&type=LI NK&lipi=urn:li:page:d_flagship3_profile_view_base_position_details;yVNi+SnFTCyGXgo jZ0jWLA==

Flipagram - Los Angeles, CA

Contract iOS Engineer 06/2014 - 08/2014

Modified existing software to correct errors, adapt to new hardware, and improve performance.

Collaborated with artists to achieve appropriate visual styles.

Consulted with multiple stakeholders to define requirements and implement online features.

Created and managed documentation, production schedules, prototyping goals, and communication plans in collaboration with production staff.

Skills: Objective-C, UIKit, CoreAnimation, CoreGraphics, Alamofire, CoreData, Localization, AVFoundation, GCD, Reverse Engineering

Additional Resources: https://www.linkedin.com/in/drunknbass/details/experience/560516203/multiple-media-viewer?

profileId=ACoAAAUlmE4BpLko2BBORnoo6f13akRMgPJjbdA&treasuryMediaId=50449713&type=LI
NK&lipi=urn:li:page:d_flagship3_profile_view_base_position_details;yVNi+SnFTCyGXgo
jZ0jWLA==

https://www.linkedin.com/in/drunknbass/details/experience/560516203/multiplemedia-viewer?

profileId=ACoAAAUlmE4BpLko2BBORnoo6fl3akRMgPJjbdA&treasuryMediaId=50449705&type=LI NK&lipi=urn:li:page:d_flagship3_profile_view_base_position_details;yVNi+SnFTCyGXgo jZ0jWLA== TMZ - Los Angeles, CA

Contract iOS Engineer 02/2014 - 05/2014

Worked with various development teams to deliver a rewrite of the TMZ app for the latest iOS version and features.

I developed a custom video player for iOS that allowed real time comments. Worked with designers to decompose features into deliverables. Collaborated with QA to triage and resolve defects.

Skills: Objective-C, UIKit, Swift, CoreAnimation, CoreGraphics, GCD, H.264, AVFoundation

Additional Resources: https://www.linkedin.com/in/drunknbass/details/experience/50101055/single-media-viewer?

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LADB - Los Angeles, CA

Contract iOS/tvOS Engineer 2013 - 2018

Developed an encrypted offline media viewer for iPhone and iPad, integrating client-proofing and approval functionalities.

Led the development of a cross-platform iOS/tvOS video streaming application(ScreeningNow), supporting HLS h.264 variable bitrate encrypted video, with streaming and offline capabilities via CoreData integration, including a tvOS front row widget.

Skills: Objective-C, UIKit, AVFoundation, CoreData, tvOS, CoreData, OpenSSL, CoreAnimation, CoreGraphics, GCD, App Extensions, Photoshop, H.264

Additional Resources: https://www.linkedin.com/in/drunknbass/overlay/50064141/single-media-viewer?

type=LINK&profileId=ACoAAAUlmE4BpLko2BBORnoo6fl3akRMgPJjbdA&lipi=urn:li:page:d_fla
gship3_profile_view_base;nJvpueEYQHqtCbgrAuISWw==
https://appadvice.com/app/screeningnow/1212817176

Boss Printing - Santa Ana, CA

Lead Designer 2007 - 2009

Lead designer responsible for creation of graphics and media primarily used for print (billboards, magazines, automotive wraps).

Responsibilities include spot color separation and preparation of vellum for screen printing. Producing and proofing in house graphics. Designing graphics for digital signage. Assisting shop tech with installation and color corrections. Clients include Paul Frank, Fox Racing, Wahoo's Fish Tacos.

Skills: Wide Format Digital, Color Separation, Screen Printing, Photoshop, Illustrator

EDUCATION

School of Motion - Online

3D Design and Animation

2020 - 2023

Basecamp - 2020

https://www.schoolofmotion.com/courses/cinema-4d-basecamp

Ascent - 2020

https://www.schoolofmotion.com/courses/cinema-4d-ascent

Laguna Hills High School - Laguna Hills, CA

General Education

1996 - 2000