**AMRUTH REDDY**

**iOS Mobile Development / Swift Expert**

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**PROFILE SUMMARY**

* **10+ years of iOS development experience leading the creation of core features across high-traffic apps for IKEA, Republic Airways, Universal Pictures, Citibank, and NextEra Energy, with a strong emphasis on performance, UX, and scalability.**
* Architected and implemented SwiftUI-based modules such as product detail pages, dynamic theming engines, and offline-ready interfaces, significantly reducing technical debt and enhancing UI responsiveness.
* Specialized in building offline-first experiences using CoreData, Realm, and custom caching strategies to ensure uninterrupted user access in low or no network conditions.
* Integrated complex APIs and services (REST, GraphQL, Fandango, Google Places, Firebase, Apollo) to enable real-time data flows and third-party integrations, supporting diverse business use cases.
* Designed robust and secure authentication flows using OAuth2, JWT, and Keychain, enhancing app security and user session management.
* Owned full-stack app feature lifecycles, from requirements grooming and UI design collaboration (Figma/Zeplin) to development, testing, and deployment.
* Introduced and enforced scalable architecture patterns, including MVVM, MVVM-C, and dependency injection (Swinject), enabling clean separation of concerns and modularity.
* Set up and maintained CI/CD pipelines with Jenkins and Fastlane, automating build, testing, and TestFlight deployment to reduce release cycle time.
* Implemented advanced testing strategies using XCTest, XCUITest, SnapshotTesting, Quick/Nimble to ensure stability, UI consistency, and regression coverage.
* Managed real-time updates and notifications using Firebase Cloud Messaging (FCM), APNS, and background tasks for seamless user alerting and syncing.
* Improved app analytics and crash monitoring via Firebase Analytics, Crashlytics, and Mixpanel, leading to data-driven decision-making and reduced error rates.
* Led cross-functional Agile teams, actively participating in sprint planning, retrospectives, and backlog grooming while collaborating with designers, QA, and backend teams.
* Mentored junior developers and peer-reviewed code, establishing best practices in Swift, SwiftUI, and architectural patterns across projects.
* Pioneered performance optimization efforts, leveraging Combine, AVKit, Alamofire, and UIView animations to deliver smooth and media-rich experiences.
* Championed accessibility and localization, ensuring global reach and compliance with industry standards for usability and inclusivity.

**TECHNICAL SKILLS**

**Programming Languages:** Swift, Objective-C, Kotlin, Java, JavaScript, HTML/CSS, C++, Python

**Architectures & Design Patterns:** MVC, MVP, MVVM, VIPER, Clean Architecture, Coordinator, TCA  
**Design Patterns:** Singleton, Delegation, Notification Observer, Publishers, Proxy, Factory, State, Template, Builder, Behavior, Façade, SOLID, Dependency Injection, KVC, KVO.

**UI/UX Development:** SwiftUI, UIKit, Storyboards, AutoLayout, Xib, Interface Builder, CALayers, UIView, Views & View Controllers, Programmatic UI Implementation, Refined Animations, Smart Stack (WatchOS), Accessibility (Eye Tracking, Hover Typing, Music Haptics), SF Symbols, Figma, Sketch, Adobe XD

**Databases & Storage:** Core Data, SwiftData, UserDefaults, Keychain, FileManager, SQLite, NoSQL (MongoDB, Realm, Firebase Firestore, AWS DynamoDB), MySQL, Protobuf

**Frameworks & Libraries:** SwiftUI, Combine, CocoaTouch, CoreData, UIKit, MapKit, CoreLocation, CoreBluetooth, XCTest, Alamofire, Firebase, Cloud Kit, EventKit, ApolloClient, RxSwift, RxCocoa, XCFramework, WidgetKit, Live Activities, ActivityKit, RealityKit, Motion Framework, TabletopKit, Volumetric APIs, Passkeys, Game Porting Toolkit 2, Metal, App Clips, App Extensions, HealthKit, CarPlay, SiriKit, App Intents, Machine Learning APIs

**AI & Machine Learning:** CoreML, CreateML, VisionKit, Apple Intelligence (on-device AI), Natural Language Processing, ML Compute, Augmented Reality (ARKit, RealityKit)

**Networking & Web Services:** RESTful APIs, JSON, XML, YAML, GraphQL, WebSockets, gRPC, SSE, Enterprise APIs (visionOS, iPadOS, tvOS)

**Testing & Debugging:** TDD (Test-Driven Development), Unit Testing, XCTest/XCUITest, Quick & Nimble, Automated Testing, Appium, Mockingbird, Cuckoo, SonarQube, LLDB, Instruments (Allocations, Leaks, Zombies), Charles Proxy, Postman, Swift Testing, TestFlight (Tester Enrollment Criteria, Public Link Metrics)

**Dependency Injection:** Constructor Injection, Swinject, Initializers, DI

**Concurrency & Multithreading:** GCD (Grand Central Dispatch), Operations, Async/Await, Actors, Dispatch Groups, Dispatch Work Items, Locks, Semaphores, RunLoop.

**CI/CD & DevOps:** Jenkins, Fastlane, GitHub Actions, TestFlight, Bitrise, CircleCI, Azure DevOps (ADO)

**Version Control & Collaboration:** Git, GitHub, GitLab, Bitbucket, SourceTree

**App Store & Payments:** App Store Connect, StoreKit, Wallet & Apple Pay, TipKit

**Methodologies & Development Approaches:** Agile, Kanban, XP, Waterfall, OOP, Protocol-Oriented Programming (POP)

**Project & Collaboration Tools:** JIRA, Confluence, Basecamp, Slack, Figma, InVision, Firebase, SonarQube

**PROFESSIONAL EXPERIENCE**

**IKEA, Conshohocken, PA | Jul 2023 – Present**

**Lead iOS Developer**

**App Link:** [**https://apps.apple.com/us/app/ikea/id1452164827**](https://apps.apple.com/us/app/ikea/id1452164827)

**Summary:** Led the development of key features in the IKEA iOS app—including Product Search, Wishlist, Add to Cart, and Store Locator—using SwiftUI, CoreData, and MapKit to deliver a fast, intuitive, and reliable user experience. Migrated legacy UIKit code, integrated real-time APIs, and streamlined CI/CD pipelines for efficient delivery and maintenance.

* Played a key role in developing and launching core features in the IKEA iOS app such as Product Search, Wishlist, Add to Cart, and Store Locator – ensuring each feature was user-friendly, fast, and reliable.
* Built the Product Detail Page using SwiftUI, incorporating dynamic layouts, image galleries, and stock availability from real-time APIs.
* Designed and implemented the Wishlist module, allowing users to save and manage favorite products, with offline support using CoreData.
* Developed the Store Locator feature using MapKit, integrating location services and filtering stores based on availability and distance.
* Migrated older UIKit screens to SwiftUI, reducing legacy code and improving maintainability and test coverage.
* Integrated backend services using URLSession and Alamofire to handle login, product data retrieval, and checkout flows.
* Worked with Firebase Analytics and Crashlytics to track feature usage and diagnose app issues in real-time.
* Participated in CI/CD pipeline setup using Jenkins and Fastlane, automating build, test, and deployment processes to TestFlight.
* Wrote unit tests and UI automation tests using XCTest, XCUITest, and Quick/Nimble, covering critical app flows. Regularly collaborated with designers using Figma/Zeplin to turn design mockups into polished, production-ready UI components.
* Engaged in Agile ceremonies like sprint planning, reviews, and daily standups; worked closely with product owners to refine feature requirements.
* Actively participated in code reviews, knowledge sharing, and mentoring junior iOS developers on architecture patterns and Swift best practices.

**Environment:** SwiftUI, UIKit, CoreData, MapKit, URLSession, Alamofire, Firebase Analytics, Firebase Crashlytics, Jenkins, Fastlane, TestFlight, XCTest, XCUITest, Quick, Nimble, Figma, Zeplin, Agile.

**Republic Airways, Indianapolis, IN | May 2021 – Jun 2023**

**Senior iOS Developer**

**App Link:** [**https://apps.apple.com/us/app/republic-shuttle-services/id1664575788**](https://apps.apple.com/us/app/republic-shuttle-services/id1664575788)

**Summary:** Led the development of core offline-first features in the Republic Airways iOS app—such as Crew Schedule Viewer and Flight Status—using Swift, SwiftUI, CoreData, and GraphQL to ensure reliability even without connectivity—enhanced app architecture with MVVM-C, secure login with OAuth2, and real-time updates via FCM and APNS.

* Took ownership of building and maintaining key features like Crew Schedule Viewer, Flight Status, Terminal Map Access, and In-App Messaging, ensuring they worked reliably even in low or no connectivity environments.
* Worked with Swift, Objective-C, SwiftUI, and UIKit to create responsive and reusable user interfaces, supporting both light and dark modes.
* Integrated secure backend services using Alamofire, URLSession, and GraphQL, handling OAuth2-based login and session management with JWT and Keychain.
* Focused on offline-first design, leveraging CoreData and Realm to ensure smooth access to flight data and documents when mid-air or out of signal.
* Handled real-time push notifications through Firebase Cloud Messaging (FCM) and APNS for updates on flight changes and urgent alerts.
* Implemented background tasks using BGTaskScheduler, allowing silent syncs and background refreshes without draining device battery.
* Contributed to the app's architecture by introducing MVVM-C with dependency injection using Swinject, improving testability and code structure.
* Wrote unit and UI tests using XCTest, XCUITest, Quick/Nimble, and SnapshotTesting, which helped us catch issues early and ensure UI consistency.
* Automated build and release pipelines using Fastlane and Jenkins, pushing stable builds to TestFlight and reducing manual deployment overhead.
* Monitored app performance and usage with tools like Firebase Analytics, Crashlytics, and Mixpanel, making data-driven decisions on feature improvements.
* Collaborated with product managers, designers (via Figma and Zeplin), QA engineers, and backend developers in an Agile Scrum environment using Jira and Slack.
* Mentored junior developers, reviewed pull requests, and helped enforce consistent coding standards across the team.

**Environment:** Swift, Objective-C, SwiftUI, UIKit, CoreData, Realm, Alamofire, URLSession, GraphQL, OAuth2, JWT, Keychain, Firebase Cloud Messaging (FCM), APNS, BGTaskScheduler, MVVM-C, Swinject, XCUITest, Quick, Nimble, SnapshotTesting, Fastlane, Jenkins, TestFlight, Firebase Analytics, Crashlytics, Mixpanel, Figma, Zeplin, Jira, Slack.

**Universal Pictures, Universal City, CA | Mar 2019 – Apr 2021**

**Senior iOS Developer**

**App Link:** [**https://apps.apple.com/us/app/universal-pictures-awards/id1624753479**](https://apps.apple.com/us/app/universal-pictures-awards/id1624753479)

**Summary:** Led development of cinematic experiences in the Universal Pictures iOS app, including trailer playback, ticket booking, and dynamic theming, using SwiftUI, AVKit, Combine, and third-party APIs for real-time content and secure transactions.

* Developed core features including Now Playing, Upcoming Releases, Trailer Playback, Theater Locator, and Ticket Booking.
* Built an immersive trailer experience using AVKit and AVFoundation with custom UI overlays and gestures, optimized for both Wi-Fi and cellular networks.
* Integrated third-party APIs like Fandango and Google Places to display real-time showtimes and nearby theater locations.
* Designed and implemented the dynamic theming engine in SwiftUI to change app appearance based on movie branding and events.
* Developed secure payment workflows for ticket purchases using Apple Pay and integrated loyalty rewards with Keychain-backed user sessions.
* Worked extensively with Combine and SwiftUI to build reactive views that updated with real-time backend data.
* Used GraphQL and RESTful APIs through Alamofire and Apollo to fetch movie metadata, schedules, and user data.
* Ensured smooth offline access by caching essential content using CoreData and custom caching layers.
* Handled push notifications using Firebase Cloud Messaging (FCM), including segmented notifications for pre-release and premiere updates.
* Collaborated with UI/UX teams through Figma and Zeplin to bring cinematic designs to life with animations and transitions using UIViewPropertyAnimator and Lottie.
* Implemented localization and accessibility support to reach a global and inclusive audience.
* I led the test automation effort using XCTest, SnapshotTesting, and XCUITest to ensure high reliability before releases.
* Participated in sprint planning, retrospectives, and code reviews in an Agile setup using Jira, GitHub, and Slack.
* Mentored new developers, improved onboarding documentation, and contributed to evolving our app architecture toward a cleaner, modular structure.

**Technologies used:** Swift, SwiftUI, Combine, AVKit, AVFoundation, Apple Pay, Keychain, Alamofire, Apollo, GraphQL, RESTful APIs, CoreData, Firebase Cloud Messaging (FCM), Google Places API, Fandango API, UIViewPropertyAnimator, Lottie, XCTest, SnapshotTesting, XCUITest, Figma, Zeplin, Jira, GitHub, Slack.

**Citibank, New York City, NY | Jan 2017 – Feb 2019**

**iOS Engineer**

**App Link:** <https://apps.apple.com/us/app/citi-mobile/id301724680>

**Summary:** As an iOS Engineer at Citibank, led the development of secure and scalable mobile features including check deposit using Tesseract OCR, FICO Score integration, and Citi Lock, while modernizing architecture to MVVM, enhancing security with SSL pinning and Touch ID, and integrating cross-platform features using React Native.

* Implemented P.O.C. for mobile deposit using Tesseract OCR, OpenCV, AVFoundation, and a custom thresholding algorithm.
* Trained Tesseract to read glyphs from the fonts used on CitiBank checks.
* Implemented Common Crypto and SSL pinning to ensure secure communication from the mobile to the server end.
* Main contributor to the delivery of privacy and security on the Citi Lock feature.
* Senior Engineer in implementing the FICO Score section.
* Used a combination of Storyboards, XIBs, and a programmatic approach to creating UI.
* Regularly performed code reviews to ensure efficiency, readability, and maintainability.
* Handled Dependency Injection and Dependency Inversion through the use of protocols to maximize scalability and modularity with decoupling of modules.
* Integrated Touch ID capabilities using Local Authentication.
* Refactored architecture from MVC to MVVM for better state management and code organization.
* Implemented a dashboard to monitor account sections using Storyboards and RESTful API consumption.
* Added to the accounts/login team to solve numerous high-priority issues related to user accounts.
* Created a P.O.C. version of the app using VIPER architecture.
* Fixed memory issues using Instruments (e.g., Allocations, Time Profiler).
* Used Jenkins for the CI pipeline with a strict Git Flow approach and GitHub for source control, complemented by SourceTree as a GUI.
* Wrote unit tests with XCTest to ensure code reusability and modularity using mocks and stubs.
* Created a P.O.C. app using SceneKit to render a floating cube.
* Built cross-platform components using React Native for prototyping features targeting both iOS and Android environments.
* Integrated React Native views into the existing iOS app via native bridges, enabling gradual migration and improved feature velocity.

**Environment:** Tesseract OCR, OpenCV, AVFoundation, custom thresholding algorithm, Common Crypto, SSL pinning, Storyboards, XIBs, programmatic UI, RESTful APIs, Instruments (Allocations, Time Profiler), Jenkins, GitHub, SourceTree, XCTest, mocks, stubs, Dependency Injection, Dependency Inversion, protocols, Local Authentication (Touch ID), MVVM architecture, SceneKit, VIPER architecture, React Native

**NextEra Energy, Juno Beach, FL | Jan 2015 – Dec 2016**

**iOS Developer**

**App Link:** [**https://apps.apple.com/us/app/nextera-energy-events/id1659240542**](https://apps.apple.com/us/app/nextera-energy-events/id1659240542)

**Summary:** Developed and maintained a feature-rich iOS app using Swift 4 and UIKit, implementing POS functionality, reactive programming with RxSwift, and map integrations to enhance user experience. Collaborated with cross-functional teams to optimize APIs, improve app performance, and ensure robust automated testing.

* Developed iOS applications using Swift 4 in Xcode 10, adhering to modern development standards.
* Managed third-party dependencies and frameworks efficiently using Carthage and CocoaPods.
* Built user interfaces with Cocoa Touch framework and UIKit, creating intuitive and visually appealing designs.
* Collaborated closely with business and technical stakeholders to propose innovative designs, best practices, and implement reactive design patterns to enhance app performance and user experience.
* Created new screens, toolbars, and UI/UX redesign prototypes to improve overall app usability.
* Designed and implemented a Point of Sale (POS) feature enabling secure payments for fuel and purchases at Phillips 66® gas stations.
* Developed custom UI controls for displaying call, order, and store information using the PullUpController third-party library.
* Redesigned map and location features by integrating HereMaps and Google Maps APIs to improve navigation and user interaction.
* Introduced and integrated RxSwift for reactive programming, enhancing asynchronous task management and responsiveness.
* Implemented calling features with Twilio and CallKit, incorporating business logic to synchronize call information with UI.
* Enhanced analytics by integrating Adobe Analytics to track app state, user actions, and error reporting.
* Optimized network request performance through collaboration with backend teams on internal APIs for driver information and requests.
* Coordinated with backend developers to improve API transactions via their Java SDK and facilitated minor API adjustments.
* Worked alongside QA teams to improve automated testing coverage using Appium, ensuring higher app reliability.
* Designed and maintained a persistent data layer leveraging Core Data for efficient local data storage.
* Utilized debugging tools including NSLogs, Breakpoints, Instruments, and LLDB to identify and fix bugs and crash scenarios.
* Used RESTKit to manage server connections and handle authentication challenges securely.
* Performed network traffic analysis and debugging with Charles Proxy and Firebug.
* Conducted comprehensive application analysis and debugging within Xcode to maintain code quality and app stability.

**Environment:** Swift 4, Xcode 10, Carthage, CocoaPods, Cocoa Touch, UIKit, PullUpController, HereMaps API, Google Maps API, RxSwift, Twilio, CallKit, Adobe Analytics, Java SDK, Appium, Core Data, NSLogs, Breakpoints, Instruments, LLDB, RESTKit, Charles Proxy, Firebug.

**EDUCATION**

**BE Computer Science and Engineering**

**Master’s in advanced data Analytics**

University of North Texas, Denton, TX