

KALIDOSS SHANMUGAM

Frontend Architect | Mobile Solution Architect | Mobile Architect

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PROFESSIONAL SUMMARY

Frontend Architect with 12 years of experience designing scalable enterprise mobile applications using React Native, TypeScript, Swift, SwiftUI, and Flutter. Extensive experience leading architecture, building reusable frameworks, defining engineering standards, modernizing legacy applications, and delivering enterprise solutions across Banking, Automotive, Healthcare, Retail, Logistics, and FinTech domains. Expert in React Native New Architecture (Fabric, TurboModules, JSI), frontend system design, state management, performance optimization, cloud integration, CI/CD automation, DevOps, and engineering leadership. Proven ability to lead cross-functional teams, mentor engineers, and deliver highly scalable applications used by millions of users.

TECHNICAL SKILLS

Category	Skills
Programming Languages	TypeScript, JavaScript, Swift, Objective-C, Kotlin, Java, Dart
Frontend Technologies	React, React Native, React Hooks, Functional Components, Context API, Redux, Redux Toolkit, React Query (TanStack Query), Zustand, MobX, Axios, Apollo GraphQL, WebSockets
React Native	React Native New Architecture, Fabric, Turbo Modules, JSI, Hermes, Native Modules, Native Bridges (iOS & Android), Codegen, Metro Bundler, React Navigation, Deep Linking, OTA Updates (CodePush), MMKV, AsyncStorage, Secure Storage, FlashList, FlatList Optimization, Gesture Handler, Reanimated, Push Notifications (FCM/APNs), Background Tasks, Performance Optimization
iOS Development	SwiftUI, UIKit, Combine, Swift Concurrency (async/await), Grand Central Dispatch (GCD), Core Data, URLSession, Auto Layout, StoreKit, AVFoundation, CoreLocation, MapKit, CoreBluetooth, Background Tasks, UserNotifications, APNs, Keychain, Universal Links, App Clips, CocoaPods, Swift Package Manager (SPM), Xcode
Android Development	Kotlin, Java, Android SDK, Jetpack Compose, XML Layouts, Android Jetpack, Activity, Fragment, ViewModel, LiveData, StateFlow, SharedFlow, Navigation Component, Room Database, WorkManager, Coroutines, Hilt, Dagger, DataStore, Paging 3, Material Design, Android Studio, Gradle, Play Services, FCM
Flutter	Flutter, Dart, StatefulWidget, Provider, Riverpod, Bloc, GetX, Navigator 2.0, Custom Widgets, Platform Channels, Flutter Web, Flutter Desktop, Hive, ObjectBox, Firebase Integration, Responsive UI
Kotlin Multiplatform (KMP)	Kotlin Multiplatform Mobile (KMM), Shared Business Logic, Kotlin Coroutines, Flow, Ktor Client, SQLDelight, Dependency Injection, Shared Networking, Shared Domain Layer, Android/iOS Interoperability
Architecture & Design Patterns	Frontend Architecture, Mobile Architecture, Solution Architecture, Clean Architecture, MVVM, MVI, MVC, MVP, VIPER, TCA, SOLID Principles, DRY, KISS, Dependency Injection, Repository Pattern, Coordinator Pattern, Factory Pattern, Observer Pattern, Strategy Pattern, Builder Pattern
State Management	Redux Toolkit, Context API, React Query, Zustand, MobX, Combine, StateFlow, SharedFlow, LiveData, Riverpod, Bloc, Provider
UI/UX	Design Systems, Component Libraries, Storybook, Responsive UI, Adaptive

Category	Skills
Engineering	Layouts, Accessibility (WCAG), Material Design, Cupertino Design, Dark Mode, Dynamic Themes, Animations, Skeleton Loading, Lottie
Performance Optimization	App Startup Optimization, Lazy Loading, Code Splitting, Bundle Optimization, Memory Leak Analysis, Memory Profiling, CPU Profiling, Rendering Optimization, Network Optimization, Image Optimization, Offline Caching, Flipper, React DevTools, Instruments, Android Profiler
Backend Integration	REST APIs, GraphQL, WebSockets, gRPC, OpenAPI, Swagger, JSON, OAuth2, JWT, Axios, URLSession, Retrofit, Ktor Client
Cloud & Backend Services	AWS, Firebase, Google Cloud Platform (GCP), Azure, Firebase Authentication, Firestore, Realtime Database, Cloud Functions, Firebase Analytics, Firebase Remote Config, Crashlytics
Databases & Storage	SQLite, Core Data, Realm, Hive, ObjectBox, Room, DataStore, PostgreSQL, MySQL, MongoDB, Firestore, Secure Storage, Keychain, Encrypted SharedPreferences
Security	OAuth2, OpenID Connect (OIDC), JWT, SSL Pinning, Certificate Pinning, AES Encryption, RSA Encryption, Secure Storage, Keychain, Android Keystore, Biometrics (Face ID/Touch ID/Fingerprint), OWASP Mobile Security, Secure API Communication
Testing & Quality Assurance	Jest, React Native Testing Library, Detox, XCTest, XCUITest, JUnit, Espresso, Mockito, Appium, Unit Testing, Integration Testing, End-to-End (E2E) Testing, Snapshot Testing
DevOps & CI/CD	Fastlane, GitHub Actions, Jenkins, Bitrise, CircleCI, Azure DevOps, GitLab CI/CD, Firebase App Distribution, TestFlight, Play Console, App Store Connect, Docker, SonarQube
Monitoring & Analytics	Firebase Crashlytics, Firebase Analytics, Datadog, Sentry, New Relic, Mixpanel, App Center, Google Analytics
Developer Tools	Xcode, Android Studio, VS Code, IntelliJ IDEA, Git, GitHub, GitLab, Bitbucket, Postman, Charles Proxy, Proxyman, Figma, Jira, Confluence
Software Engineering Practices	Agile, Scrum, Kanban, SDLC, TDD, BDD, Code Reviews, Pair Programming, Technical Leadership, System Design, Technical Roadmaps, Architecture Reviews, Engineering Standards, Release Management, Feature Flags, Monorepo, Nx, TurboRepo

PROFESSIONAL EXPERIENCE

MOBILE ARCHITECT

Altimetrik Pvt. Ltd. | Chennai, India

Jun 2023 – Present

- Lead architecture and delivery of enterprise Connected Car mobile applications for Toyota and Lexus.
- Define solution architecture, API contracts, engineering standards, and technical roadmap.
- Improved application performance by 35% through architecture optimization.
- Reduced CI/CD deployment time by 50% using Fastlane automation.
- Mentor engineers through architecture reviews, code reviews, and technical coaching.
- Collaborate with Product, Backend, QA, and DevOps teams to deliver scalable enterprise solutions.
- Worked **PayPal Card Management** modules including card activation, lock/unlock, transaction history, and secure payment features.
- Built an **AI-powered HR Management Platform** with subscription-based conversational AI capabilities for employee self-service and HR automation.

TECHNICAL LEAD / ARCHITECT

MSys Technologies | Chennai, India

Jan 2022 – Jun 2023

- Led development of enterprise mobile applications using Clean Architecture and MVVM.
- Designed secure backend integrations with OAuth2, JWT, and REST APIs.
- Established coding standards, reusable components, and CI/CD practices.
- Collaborated with stakeholders to define technical solutions and delivery plans.
- Mentored developers and conducted architecture and code reviews.

SENIOR IOS DEVELOPER

Encora Inc. | Chennai, India

May 2021 – Jan 2022

- Developed enterprise cloud-connected iOS applications using Clean Architecture.
- Improved API response time by 40% through networking optimization.
- Integrated AWS, Firebase, GraphQL, and analytics platforms.
- Collaborated with architects and backend teams to deliver secure mobile solutions.

SENIOR IOS DEVELOPER

GAVS Technologies | Chennai, India

Aug 2018 – Apr 2021

- Developed enterprise Healthcare and Banking applications with secure backend integration.
- Implemented biometric authentication, SSL pinning, and encrypted local storage.
- Optimized application performance and participated in technical design reviews.
- Delivered scalable mobile applications using Agile methodologies.

SENIOR IOS DEVELOPER

Tesark Technologies | Chennai, India

Nov 2016 – Jul 2018

- Designed enterprise applications using VIPER Architecture.
- Improved application stability by 50% through performance optimization.
- Integrated REST APIs and third-party SDKs.

PROGRAMMER

Infowave Global Knowledge Pvt. Ltd. | Chennai, India Feb 2015 – Aug 2015 | Dec 2015 – May 2016

- Developed enterprise iOS applications using Swift and Objective-C.
- Integrated REST APIs, push notifications, and third-party SDKs.
- Participated in Agile development and production releases.

ASSOCIATE SOFTWARE ENGINEER

Sybrant Technologies | Chennai, India

Jan 2014 – Feb 2015

- Developed iOS applications and backend integrations.
- Fixed production issues and improved application performance.

MAJOR PROJECTS

Toyota i-Connect | Connected Car Platform (Automotive)

Role: Technical Lead | Mobile Solution Architect

- Led Connected Car platform development with remote vehicle operations and real-time monitoring.
- Architected scalable mobile solutions with secure cloud and backend integration.

Technologies: Swift, SwiftUI, Firebase, AWS, REST APIs, OAuth2, JWT, CI/CD, Fastlane

Lexus India | Connected Vehicle Platform

Role: Technical Lead

- Delivered premium Connected Vehicle applications with secure cloud integration.
- Enhanced scalability, performance, and customer experience.

Technologies: Swift, SwiftUI, Firebase, REST APIs, AWS

PayPal | Card Management Platform

Role: Senior iOS Developer

- Developed secure card management modules including card activation, lock/unlock, transaction history
- Improved networking performance and implemented enterprise-grade security practices.

Technologies: Swift, UIKit, REST APIs, Apple Pay, OAuth2

Other Enterprise Projects

HDFC Bank • GiaX AI • UTOO Cabs • Neurun • ZIF AIOps • SOTC • Cantaloupe • Swishex

ACHIEVEMENTS

- GEM Award – Continuous Achievement
- Best Team Lead Award
- Customer Delight Award
- Best Team Builder Award
- Star of the Team Award
- Delivered **25+** enterprise mobile applications across multiple domains.
- Improved application performance by **35%** through architecture optimization.
- Reduced CI/CD deployment time by **50%** using automation.
- Led and mentored **10+** engineers across cross-functional teams.
- Architected scalable mobile solutions for **Toyota, Lexus, PayPal, HDFC Bank**, and AI-driven platforms.

TECHNICAL LEADERSHIP

- Led cross-functional engineering teams throughout the Software Development Life Cycle (SDLC).
- Defined architecture standards, coding guidelines, and engineering best practices.
- Conducted architecture reviews, code reviews, and technical mentoring.
- Collaborated with Product Owners, Architects, QA, DevOps, and business stakeholders to deliver enterprise solutions.
- Drove Agile delivery, sprint planning, release management, and continuous improvement initiatives.

EDUCATION

Bachelor of Engineering (Computer Science & Engineering)

Mohamed Sathak Engineering College, Anna University

CERTIFICATIONS

- AWS Cloud Technical Essentials (*AWS*)
- Gemini for End-to-End SDLC (*Google*)
- Trustworthy Generative AI (*Google Cloud*)
- Generative AI for Everyone (*DeepLearning.AI*)
- Advanced Cybersecurity Techniques (*Coursera/LinkedIn Learning*)
- DevOps on AWS and Project Management (*AWS*)
- PMP Exam Preparation: Project Management Professional (PMBOK)
- Master CI/CD for iOS Developers
- Appium – Mobile Testing (Android/iOS) from Scratch + Frameworks
- The Complete Leadership Training Course for Personal Success