

VIGNESH VEERASWAMY

Flutter Developer | Dart | Offline-First Architecture | Node.js | C#

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PROFESSIONAL EXPERIENCE

Senior Software Engineer & Flutter Tech Lead

Winomech Pvt Ltd, Chennai

Jan 2024 - Present

Skadii | HTI (High Technology Industries)

- Built a C# microservice using delta synchronization to provide mobile devices with a local copy of each user's data, supporting offline access and incremental updates.
- Implemented the mobile side in Flutter with Drift and SQLite: local task and maintenance data, timestamp-based delta sync, and queued commands that replay when connectivity returns.
- Added record-version checks to reject duplicate or stale SignalR events and reconciled real-time updates with REST data loads to keep local data consistent.
- Migrated local storage from Sembast to Drift. Moved database writes and event processing to a shared database isolate and a separate SignalR worker to reduce work on the UI isolate.
- Improved Maintenance Overview performance by 70% through isolates, caching, debouncing, and data-loading optimizations. Used concurrent page fetching, batched writes, and paginated local queries for large datasets.
- Wrote unit tests for offline transitions, reconnection, retries, and sync behavior, and added Patrol integration tests. Reviewed code and mentored developers.
- Owned mobile delivery from requirements through production support. Maintained Azure Pipelines and Fastlane for Android/iOS builds and app store releases.

Senior Software Engineer

Calidig Solutions - Cali Clinic, Remote

Nov 2023 - Jan 2024

- Developed healthcare application modules with Flutter, Node.js, and PostgreSQL, including appointment management and scheduling workflows.
- Fixed API integration and authentication issues, supported React.js frontend development, and translated Figma designs into responsive, reusable interfaces.
- Worked with stakeholders to clarify requirements and coordinated implementation and sprint delivery.

Lead Software Engineer

Avasoft Pvt Ltd, Chennai

Mar 2022 - Sep 2023

- Built full-stack internal applications with Flutter, Node.js, Express.js, React.js, MongoDB, and PostgreSQL, including a MERN-based bug tracker.
- Delivered bug-tracking, crash-reporting, and task-management tools used by more than 700 staff, replacing spreadsheet-based workflows.
- Designed backend architecture, database models, ER diagrams, and API contracts for a no-code platform. Built a code-generation engine for Flutter component scaffolding.
- Built and mentored a seven-member Flutter team through onboarding, technical training, code reviews, and day-to-day development guidance.

PROFESSIONAL SUMMARY

Software Engineer and Flutter Tech Lead with nearly five years of experience building mobile-first, full-stack applications for business-critical operations in industrial snow machinery, supply chain, and healthcare. Experienced in Flutter, Dart, Node.js, ASP.NET Core Web API, reactive programming, REST APIs, and SignalR. Designed offline-first applications using Drift and SQLite, delta synchronization, record versioning, stack-based buffering with priority-queue flushing, and communication between multiple isolates. Apply system design and data structures and algorithms to synchronization, data processing, and application performance. Own the complete software development lifecycle, from requirements and technical design to testing, CI/CD, app store releases, and production support.

CORE COMPETENCIES

Flutter | Dart | Android / iOS

Offline-First | Delta Sync | C#

Node.js | Express.js | PostgreSQL

Record Versioning | Clean Architecture

CQRS | Multi-Isolate | Pagination

REST APIs | SignalR | BLoC / Cubit

SQLite / Drift | Unit / Widget Tests

Patrol | CI/CD | SDLC

Dart and State Management

async/await, Futures, Streams, RxDart, BLoC, Cubit, Provider, Riverpod, MobX

Databases

SQLite, Drift, Isar, Hive, ObjectBox, Sembast, PostgreSQL, MongoDB

PROFESSIONAL EXPERIENCE

Software Engineer (Trainee to Software Engineer)

Avasoft Pvt Ltd, Chennai

Dec 2021 - Mar 2022

- Developed a task-management API using Node.js and MongoDB to replace spreadsheet-based tracking. Used UML diagrams and data modeling to plan implementation.

PROJECT HIGHLIGHTS

Flutter Framework Contribution

Dart | Flutter Rendering and Widget Framework

Authored Flutter PR #191751 proposing a fix for inconsistent ParentDataWidget error handling between debug and release modes. Added widget regression tests for descriptive errors and ErrorWidget behavior.

Scribe My Notes

Flutter | Isar | MobX | MVVM

github.com/vig31/scribe-my-notes

Built an open-source notes app with offline storage, biometric authentication, reminders, Markdown rendering, and local data encryption. Released on Google Play with 130+ installs.

Leaf Decor

Flutter Web | Appwrite | BLoC | Material 3

leafdecor.in

Built an e-commerce app with responsive layouts, authentication, cart workflows, and real-time inventory tracking. Deployed with Vercel and Appwrite.

KEY ACHIEVEMENTS

Maintenance Overview Performance

Improved module performance by 70% through processing and data-loading optimizations.

Engineering Leadership

Built and mentored a seven-member Flutter engineering team.

Production Delivery

Managed Android/iOS releases and automated delivery using Azure Pipelines and Fastlane.

EDUCATION

B.E. Mechatronics Engineering

Anna University

2018 - 2022 | CGPA: 8.3/10

COMMUNITY & LEADERSHIP

Conducted Flutter and AI workshops and mentored developers through technical sessions and pair programming. Participated in Google Developer Group Flutter meetups and hackathons.

TECHNICAL SKILLS

Mobile Development

Flutter, Dart, Android, iOS, Flutter Web, responsive UI, Figma implementation, widget lifecycle, app lifecycle, native integration, MethodChannels, Swift

Architecture and Data

Clean Architecture, CQRS, SOLID, MVVM, Drift, SQLite, offline persistence, delta sync, record versioning, data structures and algorithms, isolates, caching, pagination

Web and Backend

React.js, JavaScript, MERN stack, Flutter Web, Node.js, Express.js, C#, ASP.NET, RESTful APIs, GraphQL, OpenAPI

APIs and Integrations

SignalR, WebSockets, MQTT, Firebase Authentication, Firestore, Firebase Cloud Messaging, APNs, local notifications, OAuth2, Auth0, MSAL, Google Maps, NFC, Bluetooth Low Energy (BLE), OpenAPI-generated clients

Testing and Reliability

Unit testing, widget testing, Patrol integration testing, Mockito, TDD, BDD, debugging, Firebase Crashlytics, Sentry, PostHog, Matomo

Tools and Delivery

Git, GitHub, Azure Repos, branching, merging, pull requests, code reviews, Azure DevOps, Azure Pipelines, Fastlane, GitHub Actions, Codemagic, Jenkins, Postman, Android Studio, VS Code

Engineering Practices

Agile, Scrum, sprint planning, technical documentation, UML, system design, mentoring, stakeholder communication