

Jayprakash Pal

Senior Flutter Developer | Cross-Platform Specialist | Open Source Contributor

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Summary

Senior Flutter Developer with 4+ years of experience building scalable, high-performance cross-platform applications and developer tools. Creator of FlutterJS (Flutter-to-HTML compiler), Browser-Copilot (VS Code automation tool), and Flutter Test Pilot (enterprise testing framework). Expert in state management (Bloc, Provider, GetX), Clean Architecture, and full-stack development (Dart, JavaScript, Node.js). Proven track record delivering solutions for 10M+ users, with open-source contributions totaling 500+ downloads. Specialized in developer productivity tools, compiler design, and test automation.

Technical Skills

Languages & Frameworks: Flutter, Dart, JavaScript, TypeScript, Python, Node.js, Next.js, HTML/CSS. State Management: Bloc, Provider, GetX, Riverpod. Architecture: Clean Architecture, MVVM, MVC. Backend & APIs: REST APIs, Firebase, Firestore, WebSocket, Express.js. Developer Tools: Git, GitHub, Android Studio, Xcode, VS Code, Postman, Figma, FlutterFlow. Database: SQLite, Hive, SharedPreferences, Firebase Realtime DB. Testing & Automation: Flutter Integration Testing, UI Automator, Parallel Test Execution. Platforms: Android, iOS, Web, Chrome Extensions, VS Code Extensions. Cloud & DevOps: Firebase Analytics, Firebase Messaging, OneSignal, Google Play Store, App Store, CI/CD. Compiler Design: AST parsing, IR generation, code transpilation, static analysis.

Open Source Contributions & Key Projects

FlutterJS - Flutter to HTML/JS Compiler:

- Created revolutionary compiler that transpiles Flutter/Dart code to semantic HTML+CSS+JavaScript
- Reduced bundle size from 2-5MB (Flutter Web) to 50-100KB, achieving 40x improvement
- Built multi-phase pipeline: AST parsing → IR generation → JavaScript transpilation with 5-pass analysis
- Implemented SSR/CSR/Hybrid rendering modes, achieving 90-100 Lighthouse SEO scores
- Designed engine bridge architecture connecting Dart CLI with Node.js runtime via WebSocket
- Tech Stack: Dart, JavaScript, Node.js, Express.js, WebSocket, AST parsing, compiler design

Browser-Copilot - AI-Powered Browser Automation:

- Built bidirectional VS Code ↔ Browser communication system enabling GitHub Copilot to control browsers
- Developed Chrome Extension + VS Code Extension + WebSocket Relay Server architecture
- Implemented 15+ automation commands: navigation, clicking, typing, screenshot capture, console monitoring
- Enabled natural language browser control through GitHub Copilot conversational interface
- Tech Stack: JavaScript, Node.js, WebSocket, Chrome Extension API, VS Code Extension API

Flutter Test Pilot - Enterprise Testing Framework:

- Architected comprehensive testing framework with SQLite caching, achieving 40x faster test re-runs
- Built native Android UI Automator integration for automatic dialog dismissal (Google Credential Picker, permissions)
- Implemented parallel test execution across multiple devices, achieving 3-10x performance improvement
- Developed retry logic with exponential backoff, improving flaky test success rate from 60% to 95%
- Tech Stack: Dart, Flutter, Java, UI Automator, SQLite, CLI design, parallel processing

dead_code_analyzer - Static Analysis CLI Tool:

- Created Flutter/Dart CLI plugin to identify unused code, helping developers reduce technical debt
- Achieved 500+ downloads on pub.dev within 15 days with active community engagement
- Designed advanced features: custom exclusion patterns, monorepo support, CI/CD integration
- Implemented regex-based static analysis with ongoing AST-based enhancement

ILTakeCare - Enterprise Insurance Platform:

- Contributed to ICICI Lombard's wellness and insurance platform with 10M+ downloads
- Built responsive Flutter UI for seamless Android, iOS, and Web compatibility
- Implemented Clean Architecture with Bloc, improving app performance and scalability
- Integrated REST APIs and Firebase, boosting customer engagement by 30%

ImmunOmate - Healthcare Mobile App:

- Led development of preventive healthcare app with 1,000+ downloads on Google Play & App Store
- Architected end-to-end solution with Firebase integration for 24x7 doctor consultations
- Built vaccine tracking, health monitoring, and emergency assistance features

Professional Experience

Mobile Developer - Idealake Information Technologies Pvt. Ltd.

Dec 2023 – Feb 2026 | Mumbai, India

- Optimized performance across web and mobile platforms, increasing customer engagement by 30%
- Integrated Firebase Analytics for user tracking and behavioral insights
- Contributed to Axis Neo for RM and developed Ripple-like communication platform

Consultant - Flutter Developer - ICICI Lombard GIC

Jun 2024 – Feb 2026 | Mumbai, India

- Designed and implemented UI and API integrations using Bloc and Clean Architecture
- Developed scalable applications serving 10M+ users with real-time data synchronization
- Enabled dynamic content updates without redeployment, reducing deployment frequency by 40%

Flutter Developer - Bizzfinity Technology Pvt. Ltd.

Nov 2021 - Nov 2023 | Mumbai, India

- Led development of ImmunOmate & ImmunOmate SP, reaching 1,000+ downloads
- Developed real-time data solutions for Gally Banking, Moolaah, Currensea, and Acharya4life
- Implemented Firebase for analytics and real-time data management across multiple projects

Flutter Developer Intern - Bizzfinity Technology Pvt. Ltd.

Aug 2021 - Nov 2021 | Mumbai, India

- Developed architecture and UI for ImmunOmate with smooth cross-platform experience
- Integrated Firebase for analytics and real-time data management

Education

Bachelor of Science in Information Technology

Nagindas Khandwala College, Mumbai | 2018 - 2021

Certifications & Achievements

- Open Source Creator - [FlutterJS](#) (Flutter-to-HTML compiler)
- Open Source Creator - [Browser-Copilot](#) (AI browser automation tool)
- Open Source Creator - [Flutter Test Pilot](#) (enterprise testing framework)
- Open Source Creator - [dead code analyzer](#) (500+ downloads on pub.dev)