

Jiayuan Zha

Flutter Developer | Remote Contractor

Email: futameng@gmail.com | Location: Beijing, China (Remote) | Timezone: UTC+8, flexible overlap hours

Summary

Flutter Developer with 2.5+ years of cross-platform development experience building production apps across iOS, Android, macOS, Windows, and Linux. Specialized in high-performance Flutter + Rust FFI development with 12 FFI modules in production. Experienced in full product lifecycle from architecture design to app store deployment. Available as an international remote contractor (W-8BEN / B2B).

Work Experience

Cloud Museum Data Group Co., Ltd.

Flutter Developer

Dec 2024 - Oct 2025

- Led development of core business modules for an art authentication platform (10K+ DAU)
- Architected unified state management system using GetX with reactive patterns
- Integrated payment systems (WeChat Pay, Alipay) with complete payment state machine and error recovery
- Implemented concurrent media upload pipeline (6 images + 1 video) with real-time progress tracking
- Built push notification system with categorized messaging and deep link navigation

Beijing ZeroOne Smart Technology

Flutter Developer

Sep 2023 - Dec 2024

- Developed cross-platform VPN proxy client supporting 5 platforms (iOS, Android, macOS, Windows, Linux)
- Designed and implemented unified Rust FFI architecture with 12 functional modules
- Built 73,000+ line multi-protocol parsing engine supporting 20+ proxy protocols
- Optimized latency testing system achieving 50%+ performance improvement
- Managed full app store submission and release process for iOS and Android

Technical Skills

Flutter & Cross-Platform

- Proficient in Dart language, deep understanding of Flutter rendering, Widget lifecycle, state management
- State management: GetX, Riverpod, Provider, BLoC, Redux
- 5-platform development: iOS, Android, macOS, Windows, Linux
- Flutter hybrid development, native Plugin and Platform Channel encapsulation

Native & High-Performance

- Android: Kotlin/Java, Jetpack, Gradle | iOS: Swift/Objective-C, Xcode
- Dart FFI + Rust interoperability, 12 production FFI modules
- Socket connection pooling, concurrency control, caching strategies
- Memory management, startup optimization, UI performance tuning

Architecture & Tools

- ViewModel + Service + Repository three-layer architecture
- Git, GitHub, CI/CD, Code Review practices
- Networking: Dio, HTTP, Retrofit, WebSocket
- Local storage: SQLite, SharedPreferences, GetStorage

Key Projects

BitVPN - Cross-Platform VPN Proxy Client

2023 - 2024 | Flutter 3.3+ | Dart 3.1+ | Rust FFI | Kotlin | Swift | C++ | iOS, Android, macOS, Windows, Linux (5 platforms)

Commercial cross-platform VPN proxy client integrating Mihomo proxy kernel. Supports VMess, VLESS, Trojan, Hysteria2 and 20+ proxy protocols with smart node selection and high-concurrency latency testing.

Key Responsibilities

- FFI Architecture: Designed unified Rust FFI architecture (bit_native), 12 modules including system proxy, socket pool, network interface query, process daemon, port scanning. Universal Binary for macOS (arm64 + x86_64)
- Performance: Optimized latency testing with 36 concurrent (desktop) / 10 concurrent (mobile), semaphore throttling + connection pool reuse, 50%+ improvement
- Protocol Engine: Self-developed 73K+ line multi-protocol URL parser supporting 20+ protocols (VMess, VLESS, Trojan, WireGuard, etc.)
- Smart Node Selection: 4-layer strategy - auto-select (fastest), manual (user preference), failover (backup queue), recommended (smart)
- System Proxy: 3-layer cleanup mechanism preventing proxy residue - lifecycle monitoring, signal handling (SIGTERM/SIGINT), timeout protection

Technical Highlights

- Socket Connection Pool (32 connections, HTTP + FFI mixed)
- Cache TTL=1500ms reducing API calls
- Referenced Clash Verge Rev architecture

Cloud Museum - Art Authentication Platform

Dec 2024 - Oct 2025 | Flutter 3.7.12 | GetX | Rust FFI | iOS, Android

Full-featured art authentication and trading platform with 10K+ DAU. Supports online/offline authentication, digital collection preservation, membership system, and payment transactions.

Key Responsibilities

- Architecture: Led full-stack Flutter development with ViewModel + Service + Repository pattern. Architecture design, technical selection, and Code Review
- State Management: Built unified reactive system with GetX covering global state, business modules, routing, and dependency injection
- Media Pipeline: Concurrent upload (6 images + 1 video), local compression (30% traffic reduction), real-time progress, video encoding adaptation
- Payment Integration: WeChat Pay (App + URL Scheme) and Alipay (Universal Link + URL Scheme dual callback) with complete payment state machine
- Rust FFI: Integrated via flutter_rust_bridge for RSA encryption, digital signatures, and performance-critical cryptographic operations

Technical Highlights

- 138K+ lines of Dart code
- 5-minute cache mechanism (40% fewer API calls)
- Real-time push notifications with Deep Link navigation

Tech Stack

Cross-Platform	Flutter 3.x, Dart 3.x (iOS, Android, macOS, Windows, Linux)
State Management	GetX, Riverpod, Provider, BLoC, Redux
Native	Kotlin, Java, Swift, Objective-C
High-Performance	Rust FFI, Tokio Async Runtime, Socket Connection Pool
Networking	Dio, HTTP, Retrofit, WebSocket
Storage	SQLite, SharedPreferences, GetStorage
Build & CI	Gradle, Xcode, Cargo, Git, GitHub

Education

Remote Work Readiness

- ✓ Experienced with distributed codebases and async collaboration workflows
- ✓ Strong written English communication for documentation and code reviews
- ✓ Self-managed with proven ability to deliver production-quality code independently
- ✓ Flexible schedule with overlap availability for US timezone standups
- ✓ Available as independent contractor (W-8BEN) or through company entity (W-8BEN-E / B2B)