Jeffrey Monica

Software Engineer | Mobile Security | Backend Systems

San Jose, CA | zombiemutex.com/about/jeffrey-monica | github.com/DeadPineapple

PROFILE

Software engineer with professional experience since August 2013 across iOS, Android, secure communications, authentication, backend systems, and production reliability. I build and debug the trust boundaries between devices, APIs, and services, from implementation through release and incident diagnosis.

EXPERIENCE

Demonic Binary — San Francisco Bay Area | August 2013–Present

Engineering Manager (Mar 2025–Present) | Tech Lead (Dec 2018–Feb 2025) | Senior Engineer (Aug 2013–Nov 2018)

- Built SignRise mobile authentication flows using hardware-backed identity, challenge–response verification, replay resistance, and QR-based login.
- Owned Android authentication implementation, testing, beta release, and production support.
- Built backend public-key registration, signature verification, session lifecycle, and operational telemetry services.
- Implemented native iOS features using Swift, UIKit, Secure Enclave, NFC, BLE, and offline-capable application state.
- Investigated security and reliability failures with LLDB, Ghidra, network traces, crash reports, and production logging.
- Developed CI/CD, release and monitoring workflows using Bitrise, structured logs, and AWS CloudWatch.
- Led architecture and code reviews, engineering planning, mentoring, and delivery coordination with four engineers.

SELECTED PROJECTS

SignRise: Passwordless mobile authentication and device-bound identity with backend verification.

SiteGuard Monitor: Monitoring, incident workflows, and operational reliability engineering.

Realo: Mobile/backend application development and integration.

TECHNICAL SKILLS

Languages: Swift, Kotlin, Objective-C, Java, Python, C/C++

Platforms: SwiftUI, UIKit, Jetpack Compose, Secure Enclave, Keychain, NFC, BLE, App Attest, Play Integrity

Backend & security: REST APIs, OAuth/OIDC, authorization, session security, AWS, threat modeling, TLS

Testing & operations: LLDB, Ghidra, Wireshark, Crashlytics, Sentry, CI/CD, Docker

EDUCATION

University of Phoenix — San Jose, CA | 2009–2012
Computer Science coursework (no degree claimed)