

Serdar Bakirtas

Senior Apple Platform Engineer

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SUMMARY

Senior Apple Platform Engineer with 16+ years of experience building iOS, iPadOS, and macOS applications. Specializes in bringing computer vision and AI research into production-quality Apple products, with a strong focus on privacy-first architecture and on-device processing. Founded and independently shipped Momena, a complete privacy-first consumer application.

SKILLS

Languages & UI: Swift, SwiftUI, UIKit, Objective-C, SwiftData, Combine, Swift Concurrency

AI & Computer Vision: CoreML, OpenCV, On-device Inference, PyTorch Collaboration, LLM Integration

Architecture: Modular Swift Packages, Clean Architecture, MVVM, Dependency Injection

Security & Privacy: mTLS, CryptoKit, AES-256 Encryption, Privacy-first Design

Platforms & Tools: iOS, iPadOS, macOS, Xcode, Instruments, Git, Fastlane, GitHub Actions

EXPERIENCE

Senior Apple Platform Engineer — Magnosco 2023 – Present

Berlin, Germany

- Own the iOS application connecting a dermatological imaging device to an on-device CoreML diagnostic pipeline, translating PyTorch research models into production Swift/CoreML implementations.
- Redesigned a memory-heavy computer vision workflow on iPad using actor-based concurrency, intelligent caching, and conditional model execution, cutting peak memory from ~4GB to 1.2GB and eliminating crashes.
- Implemented mutual TLS (mTLS) networking with full on-device certificate lifecycle management for secure medical device communication.
- Built OpenCV-based image preprocessing pipelines and integrated multiple versioned CoreML models under strict latency and thermal budgets.

Senior iOS Engineer — Nord Security 2021 – 2023

Remote (Vilnius, Lithuania)

- Built the iOS encryption layer for NordLocker, implementing client-side AES-256 encryption (CryptoKit) so files were encrypted before ever leaving the device.
- Designed a StoreKit 2 subscription system (trials, entitlements, family sharing) with fail-safe receipt validation under poor connectivity.
- Built sync and conflict-resolution logic operating on encrypted data without server-side plaintext access.

iOS Engineer -> Senior iOS Engineer — Diconium (for Volkswagen Group) 2018 – 2021

Stuttgart, Germany (Remote)

- Led the incremental migration of Volkswagen Group's connected owner app from Objective-C to Swift and from UIKit to SwiftUI without pausing feature delivery.
- Restructured a monolithic app target into modular Swift packages by feature domain, significantly cutting incremental build times.
- Delivered a migration plan later adopted as the template for sibling brand apps.

iOS Engineer — Oculavis 2016 – 2018

Aachen, Germany

- Built the iOS/iPad client for an industrial remote-assistance product, including real-time camera-based annotation for equipment on factory floors.
- Scaled the codebase into modular Swift packages as the product expanded across customer verticals.
- Reduced average issue-resolution time for field technicians through faster, more reliable remote sessions.

iOS Engineer — VNGRS 2012 – 2016

Istanbul, Turkey

- Migrated PuhuTV's iOS client, one of Turkey's largest streaming platforms, from Objective-C to Swift and led a UIKit-to-SwiftUI migration for a product used by millions.
- Restructured the app into modular Swift packages as the engineering team scaled.

- Improved crash-free session rate during a period of rapid user growth.

Interaction Designer — Creative Agencies 2009 – 2012

Istanbul, Turkey

- Designed award-recognized interactive digital campaigns for international brands, focusing on motion, feedback, and interaction detail.
- Prototyped and specified interaction behavior precisely enough for developers to implement faithfully.

SELECTED PROJECTS

Momena — Founder, Designer & Engineer 2021 – Present

- Designed, built, and shipped a privacy-first consumer app entirely solo: SwiftUI, SwiftData, CloudKit sync, StoreKit 2, AES-256/CryptoKit encryption, WidgetKit, ActivityKit, and weekly AI-powered insights.
- Operated without a traditional backend by building entirely on Apple's ecosystem (CloudKit), removing server infrastructure and its associated privacy and operational risk.
- Owns the complete product lifecycle: UX design (Figma), engineering, App Store operations, and user support.