

MANIKANTA SIRUMALLA

iOS Engineer

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F-1 CPT-eligible | STEM OPT eligible after Dec 2026 (36 months) | Open to U.S. relocation

SUMMARY

iOS Engineer with 3+ years of production experience building Swift, SwiftUI, and UIKit-based iOS applications, plus two independently shipped App Store products. Strong in app architecture, local-first data, REST API integration, performance optimization, testing, and Apple platform frameworks including SwiftData, HealthKit, WatchKit, WidgetKit, StoreKit 2, Vision, and CoreML. Sole developer of RepTrack Pro, an AI-powered fitness and nutrition app with 300+ organic downloads and 1st Place recognition at UMBC CBIC 2026.

TECHNICAL SKILLS

Languages: Swift, Python, SQL

iOS Frameworks: SwiftUI, UIKit, Combine, Swift Concurrency, async/await, GCD, SwiftData, Core Data, StoreKit 2, HealthKit, WatchKit, WidgetKit, Live Activities, Dynamic Island, Vision, CoreML, NaturalLanguage, PDFKit, AVFoundation, MapKit, Swift Charts

Architecture: MVVM, protocol-oriented programming, dependency injection, modular feature architecture, design systems, local-first architecture

Networking & Data: REST APIs, URLSession, Codable, JSON, offline-first caching, iCloud sync, Firebase

Testing & Tools: XCTest, UI testing, Instruments, Xcode, Git, CI/CD, App Store Connect, Agile/Scrum

PROFESSIONAL EXPERIENCE

iOS Developer | ZetoStudio

Aug 2022 – Dec 2024

Hyderabad, India

- Delivered production iOS features in Swift and SwiftUI from product requirements through App Store release, covering implementation, QA fixes, release readiness, and post-release stabilization.
- Built modular feature components using MVVM, protocol-oriented interfaces, and dependency injection to separate networking, persistence, and view-model logic for cleaner testing and maintenance.
- Built reusable SwiftUI component libraries and shared view-model patterns across product modules, reducing duplicate UI implementation and speeding up feature delivery.
- Integrated REST APIs using URLSession, Codable, async/await, and Combine; implemented offline-first caching to reduce redundant network calls and improve first-load reliability.
- Optimized app performance with Instruments, memory profiling, image-pipeline tuning, and list virtualization to keep complex screens responsive at 60fps on older devices.
- Wrote XCTest unit/UI coverage, maintained CI workflows, and participated in code reviews to catch regressions before release.

iOS Developer | Grid Dynamics

Jul 2021 – Jul 2022

Hyderabad, India

- Built customer-facing iOS features for retail and e-commerce clients using Swift and UIKit, including catalog browsing, checkout, and account-management flows.
- Integrated REST APIs, push notifications, analytics SDKs, and reusable UI components across client-facing app modules.
- Worked with backend, QA, and design teams in Agile/Scrum cycles to resolve API-contract issues, triage bugs, and ship sprint deliverables.
- Resolved production and pre-release defects across API integration, checkout flows, push notifications, and device-specific UI behavior, improving release stability for client-facing apps.
- Contributed to UIKit-to-SwiftUI/Combine modernization efforts through component refactoring, pair programming, and technical design reviews.

PROJECTS

RepTrack Pro — AI-Powered Fitness & Nutrition iOS App | Sole Developer

Swift, SwiftUI, SwiftData, HealthKit, CoreML, Vision, WatchKit, StoreKit 2, Groq, OpenAI

[Live on App Store](#) | [retrackpro.org](#) | 300+ organic downloads | 1st Place, CBIC 2026

- Designed, built, and shipped a local-first fitness and nutrition platform as sole developer, covering onboarding, AI plan generation, workout execution, nutrition tracking, progress history, subscriptions, and App Store release.
- Architected a hybrid deterministic + LLM plan-generation system where training splits, progression, and metabolic calculations are handled by deterministic engines while LLM output is constrained to validated content decisions.
- Built a 4-stage AI pipeline: TrainingSplitEngine, ExerciseCatalogPromptBuilder, Groq Llama 3.3 70B with OpenAI failover, and PlanQualityValidator.
- Created a structured 1,651-exercise database across 8 categories, 15 muscle groups, 21 equipment types, and 4 difficulty tiers, including instructions, mistakes, target muscles, secondary muscles, and video references.
- Shipped Apple Watch support, Live Activities with Dynamic Island, home-screen widgets, HealthKit integration, Vision OCR, PDF/DOCX/CSV/XLSX document import, iCloud sync, and PDF export.
- Implemented StoreKit 2 subscriptions for free and premium plan tiers, including purchase flow, entitlement handling, and premium AI program access.
- Maintained 139 unit tests across onboarding and metabolic subsystems; refactored plan storage from 84 per-day objects into 4-12 reusable templates.

Tech Signal — Developer Feed Aggregator iOS App | Sole Developer

Swift, SwiftUI, SwiftData, NaturalLanguage, StoreKit 2

[Live on App Store](#) · Zero third-party dependencies

- Shipped a developer-news aggregator combining 30+ sources including Hacker News, Reddit, GitHub, RSS feeds, and conference APIs into a ranked timeline with cache-first loading.
- Built dwell-time-based ranking, trending detection, and fully local extractive summarization using Apple’s NaturalLanguage framework.
- Integrated StoreKit 2 IAP tiers, Spotlight, Siri, deep links, custom URL schemes, widgets, and a developer-tool status dashboard.

EDUCATION

M.S. Data Science | University of Maryland, Baltimore County (UMBC)

Jan 2025 – Dec 2026 (Expected)

Baltimore, Maryland, USA · GPA: 3.95 / 4.00

B.Tech. Computer Science | Vidya Jyothi Institute of Technology

2017 – 2021

Hyderabad, India · GPA: 3.45 / 4.00

HONORS & RECOGNITION

- **1st Place, Cangialosi Business Innovation Competition (CBIC) 2026** — bwTech@UMBC; \$4,000 prize; awarded for RepTrack Pro.
- **Apple WWDC 2026** — Selected for in-person attendance at Apple Park through the Apple Developer Program invitation.

PUBLICATIONS & RESEARCH

- **First-author manuscript in preparation:** “RepTrack Pro: A Hybrid AI-Deterministic Architecture for Personalized Fitness and Nutrition Plan Generation on iOS.”