

Meela Dheeraj

iOS Engineer | ARKit, Spatial Capture, Swift/SwiftUI

Visakhapatnam, Andhra Pradesh, India (open to relocation) | dheerajmeela1@gmail.com

LinkedIn: [linkedin.com/in/meela-dheeraj](https://www.linkedin.com/in/meela-dheeraj) | Portfolio: dheeraj.rotationplanner.in | Trailblazer: salesforce.com/trailblazer/meeladheeraj

PROFESSIONAL SUMMARY

iOS engineer with about 3 years of production experience building spatial data-capture apps at Track3d.ai. Shipped ARKit-based camera path tracking, 360° capture, sensor integration (CoreMotion, CoreLocation) and map-based spatial visualization for construction site monitoring. Strong in Swift, SwiftUI and Combine, with full-stack and Kotlin Multiplatform experience. Published an open-source KMP library to Maven Central. Focused on clean architecture, reliable capture pipelines and small, well-tested APIs.

TECHNICAL SKILLS

iOS and Spatial: Swift, SwiftUI, ARKit, CoreMotion, CoreLocation, Camera SDK integration, MapKit, Mapbox SDK, Combine, Redux architecture, Core Data

Cross-platform Mobile: Kotlin Multiplatform, Compose Multiplatform, Ktor, WebSockets

Web: React, Next.js, TypeScript

Data and Backend: Google Firebase, Mixpanel, PostgreSQL (Neon), Drizzle ORM, MySQL, MongoDB

Languages: Swift, Kotlin, TypeScript, Python, C++, C

Tooling: Git, GitHub Actions (CI/CD), Vercel, Maven Central publishing, PLCrashReporter, automated testing

PROFESSIONAL EXPERIENCE

Software Development Engineer (iOS and Full Stack) | Track3d.ai Nov 2023 – Present

Construction Monitoring App (iOS)

- Built an iOS app for on-site spatial data capture (360° video, 360° images and phone captures), using ARKit for real-time camera path tracking across construction sites.
- Combined ARKit tracking with CoreMotion and CoreLocation sensor data to give each capture motion and location context for site navigation.
- Integrated Mapbox and MapKit map views for real-time spatial visualization, site navigation and model comparison against captured data.
- Integrated advanced camera systems and tracking technologies to improve real-world data collection quality.
- Implemented on-device storage (Core Data), cloud upload pipelines and user-journey analytics with Google Firebase and Mixpanel.
- Engineered WebView-to-native communication bridges for in-app navigation and project configuration, using Swift, SwiftUI, Combine and a Redux architecture.

Key technologies: Swift, SwiftUI, ARKit, CoreMotion, CoreLocation, Combine, Redux, Camera SDK, Mapbox SDK, MapKit, Google Firebase, Mixpanel

PROJECTS

Klarity DebugKit | Open-source Kotlin Multiplatform Debug Toolkit Jun 2026

- Published a Kotlin Multiplatform debugging library (Android, iOS, Desktop) to Maven Central for inspecting network requests, logs and crashes through an in-app Compose overlay or a live browser viewer streamed from the device over WebSockets.
- Designed an event-driven architecture that fully decouples capture from display through a SharedFlow event bus; added native iOS crash capture with PLCrashReporter and persistence.
- Shipped no-op release artifacts (API-identical empty modules) so no debug code reaches production, enforced by a build-time API-parity test.

Tech: Kotlin Multiplatform, Compose, Ktor, Swift, SwiftUI, WebSockets, Maven Central

RotationPlanner | Intern Scheduling Platform

Jun 2026

- Built and deployed a full-stack app that generates constraint-based intern rotation schedules in one click, replacing manual spreadsheet planning.
- Designed a privacy-first system that stores no student data, with a leave-and-resume engine, carry-over logic, schedule versioning and an audit trail.
- Wrote 65+ automated tests with PR-gated releases deployed through GitHub Actions.

Tech: Next.js, TypeScript, Drizzle ORM, Neon Postgres, Vercel

EDUCATION

Bachelor of Technology in Computer Science | Anil Neerukonda Institute of Technology and Sciences (ANITS) | CGPA: 9.23/10 Feb 2021 – May 2024

Intermediate (10+2), Board of Intermediate Education, AP | Sri Chaitanya Junior College | CGPA: 9.94/10 2018 – 2020

SSC (10th), Board of Secondary Education, AP | Bhasyam High School | CGPA: 10.0/10 2018

ACHIEVEMENTS

- All India Rank 1460, Codekaze by Coding Ninjas (2023)
- Hosted a 10-day coding challenge at the ANITS tech fest (2023)
- Promoted the entrepreneurship ecosystem at ANITS under Entrepreneurship Development Drive 2.0, organized by E-Cell, IIT Madras
- AP EAMCET Rank 4732