

Kumuditha Tharinda Liyanage

Software Engineering Student — Full-Stack, Mobile & Systems

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Profile

Final-semester HND Software Engineering student at NIBM seeking a first engineering internship. Builds full-stack, mobile, and native desktop applications, with hands-on work in REST APIs, automated testing, and cloud deployment. Integrated WSO2 API Manager into an API failure-recovery lab and submitted upstream Java tests and documentation improvements.

Education

Higher National Diploma in Software Engineering

National Institute of Business Management (NIBM), Colombo

Final semester

Technical skills

Languages: TypeScript, JavaScript, Java, Kotlin, Dart, Swift, C++

Web & mobile: Next.js, React, Flutter, Jetpack Compose, SwiftUI, Tailwind CSS

Backend & data: Node.js, REST APIs, WSO2 API Manager, Firebase, Supabase, MySQL, SQLite

Testing & tools: Git/GitHub, Playwright, JUnit, CircleCI, Docker, Bash, Figma

Deployment: Vercel, DigitalOcean VPS, Linux services, server-side OAuth integration

Personal projects

Rehearsal — API failure-recovery lab

Independent · TypeScript, Next.js, Node.js, SQLite, WSO2 API Manager, Playwright

- Built three real HTTP sandboxes to reproduce lost responses, duplicate events, rate limits and unexpected response schemas.
- Routed delivery requests through WSO2 API Manager 4.7.0 using server-side OAuth; deployed the frontend on Vercel and backend on DigitalOcean.
- Used idempotency keys and ledger reconciliation: the controlled timeout experiment committed one delivery with recovery versus two in the baseline.
- Added HTTP/browser tests, execution timelines, saved history and downloadable PDF/JSON reports with architecture and deployment documentation.

rehearsal.tharinda.dev · [Source code](#)

MacPulse — Native macOS utility

Independent · Swift, SwiftUI, MVVM, Swift Actors, CircleCI

- Built cleanup, duplicate-detection and performance-monitoring features using SwiftUI and actor-based services. Published a downloadable macOS release and configured CircleCI validation checks.

github.com/mr-kumuditha/MacPulse

Personal projects — continued

DevPilot Studio — Developer tooling

Independent · Bash, shell scripting

- Built and open-sourced a terminal plugin displaying real-time Claude Code session metrics.

github.com/mr-kumuditha/devpilot-studio

Campus projects

Navora — AI travel planner for Sri Lanka

Group project · Flutter, Firebase AI Logic, Gemini, Supabase, Google Maps

- Co-developed itinerary planning and trip sharing. Migrated the Gemini integration from a Cloud Functions gateway to Firebase AI Logic with App Check; verified it on a physical device.

github.com/mr-kumuditha/Navora

Fixora — Repair-shop management app

Solo coursework · Kotlin, Jetpack Compose, Firebase, Supabase, SQLite

- Built role-based workflows for customers, technicians, branch managers and admins, including GPS branch matching, repair-status tracking and photo uploads. Tested the Android app on-device.

github.com/mr-kumuditha/fixora-mobile-app

IoT Mining Safety Helmet — Safety-monitoring prototype

Team of three · ESP32, C++, RFID, sensors, Firebase Realtime Database

- Built firmware and a cloud pipeline for zone tracking, gas-level and fall monitoring, with Telegram alerts and live dashboard updates for supervisors.

github.com/mr-kumuditha/loT-Safety-Monitoring-System

Open-source contributions

WSO2 API Manager — submitted pull requests (open)

- **Java tests:** Added six JUnit cases for unsigned IP-address boundaries, IPv6 equivalence and inversion; verified them against the upstream classes. [PR #13986](#)
- **Documentation:** Clarified Retry-After behavior and safe retry handling for throttled requests. [PR #11857](#) · [4.7.0 backport #11858](#)

Technical writing

The API Timed Out. Did the Delivery Fail?

Explains timeout ambiguity, idempotency and WSO2 API Manager through reproducible Rehearsal experiments, distinguishing gateway policies from application-level recovery.

[Read on LinkedIn](#) · [Read on Medium](#)

References
