

W W Asin Omal

Matara, Sri Lanka | +94 71 5621975 | wwasinomal@gmail.com | [GitHub](#) | [LinkedIn](#) | [Portfolio](#)

SUMMARY

Computer Science undergraduate specializing in mobile and full-stack development, with hands-on experience across React Native, Spring Boot, Docker, and Kubernetes. Completed a professional training program in Linux Systems Administration & DevOps Engineering, covering CI/CD automation and cloud infrastructure orchestration. Passionate about building scalable, production-ready applications and contributing to open-source integration and identity infrastructure.

EDUCATION

BSC (Hons) in Computer Science

Expected: November 2026

NSBM Green University Affiliated with University of Plymouth, UK

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Systems, Human-Computer Interaction, Computer Graphics.

TECHNICAL SKILLS

Languages: Java, JavaScript (ES6+), TypeScript, Dart, C#, C, SQL, HTML, CSS

Mobile Development: Flutter, React Native, Expo, NativeWind, ViroReact (AR)

Backend & Web: Node.js, Express.js, Spring Boot, React.js

Databases: PostgreSQL, MongoDB, Supabase, Firebase (Firestore & Realtime), Neon

Cloud & DevOps: Docker, Kubernetes, Terraform, ArgoCD, Prometheus, AWS, GitHub Actions, Linux

Identity & Integration: Asgardeo (OIDC / OAuth2)

Tools & APIs: Git, Postman, Google Maps API, Firebase ML Kit, Sentry

PROJECTS

Lumi - AR Word Explorer

Final Year Project

React Native, ViroReact, Firebase ML Kit, Firestore

- Built an iOS AR learning tool using React Native and ViroReact to render 3D models for early-childhood literacy.
- Engineered an on-device OCR pipeline with Apple Vision and Levenshtein fuzzy matching, gated by 3-frame confirmation to suppress false positives.
- Designed a two-phase camera architecture to share hardware between Vision Camera and ViroReact, resolving an iOS capture-session crash.
- Implemented a two-tier GLB asset cache (in-memory LRU + on-disk via RNBlobUtil) so packs download once and persist across sessions.
- Shipped a Next.js admin dashboard with 8 Firestore-backed screens spanning user management, analytics, moderation, revenue, and FCM broadcasts, with dark-mode Recharts visualizations.

KubeStock - Cloud-Native Inventory & Stock Management Platform (Group)

Spring Boot, React / Next.js, Kubernetes, ArgoCD, Prometheus, Alertmanager, OpenSearch, Docker, Terraform, GitHub Actions

- Contributed to the observability stack alongside two other members in a 10-member group project - implemented Prometheus Alertmanager rules to monitor microservice health, pod status, and resource usage.
- Built a test runner to validate alert rules and metrics behavior before deployment, preventing silent failures in the monitoring pipeline.
- Integrated observability configurations with ArgoCD-managed GitOps workflows to support automated deployment and rollback.

FoodFlow - Restaurant Ordering System

Node.js, Express, MongoDB, React, Socket.io, Asgardeo, Choreo, Docker

- Integrated Asgardeo OIDC into a full-stack MERN restaurant ordering app, replacing hand-rolled JWT auth with a managed identity platform.

- Deployed the application via Choreo, connecting the GitHub repository to Choreo's build pipeline for containerized CI/CD.
- Validated Asgardeo-issued tokens on the Express backend via JWKS endpoint verification and mapped custom user attributes to role-based access control.

Spacio - 2D/3D Furniture Planner

React 19, Konva, Three.js (React Three Fiber), Node/Express, MongoDB, WSO2 Choreo

- Built a MERN room-design tool with a Konva 2D editor and a live React Three Fiber 3D preview kept in sync through a single context, over a shared SCALE-based coordinate system that clamps furniture to Rectangle/Square/L-Shape floors.
- Generated all 3D materials procedurally at runtime, greyscale canvas albedo plus a Sobel-derived normal map, cached once and color-tinted per item, eliminating external texture assets while keeping surfaces realistic.
- Engineered drag-time smart snapping with alignment guides and a heuristic auto-arrange that places anchor pieces against walls, backed by a ref-based undo/redo history to avoid re-render churn during interaction.
- Architected a layered Express backend (routes → controllers → services) with dual-token JWT auth, Zod validation, all-fast config, and Pino structured logging, fronted by tests on mongodb-memory-server.
- Deployed the full stack as two components, solving a read-only/non-root container by rendering the Nginx config at build time and same-origin reverse-proxying /api to preserve sameSite=strict cookie auth without CORS.

Ryde - Ride-Hailing App (Uber-Style)

React Native, Expo, TypeScript, Neon PostgreSQL, Stripe, Zustand

- Integrated real-time location tracking using Google Maps API and Places Autocomplete to ensure sub-second latency for user updates.
- Architected a scalable backend with Neon PostgreSQL to manage 3 distinct user roles (Rider, Driver, Admin) and complex ride history data.
- Incorporated secure payment processing via Stripe Gateway to handle instant transactions with zero data leaks.

TradeX - Advanced Trading Performance Tracker

React Native, Expo, TypeScript, Firebase, React Native Chart Kit

- Engineered interactive analytics using React Native Chart Kit to track cumulative P&L and performance trends with zero lag.
- Developed a 'Privacy Mode' feature to dynamically mask sensitive financial figures for secure public viewing.

Adopt A Wallet - Financial Manager

Flutter, BLoC, Supabase, Firebase

- Collaborated within an agile team to deliver a cross-platform finance tracker, owning key backend features and UI localization.
- Programmed a 'Split-Budget' feature using Firebase, ensuring real-time shared expense sync across multiple user devices with <100ms latency.
- Integrated multi-language support (Sinhala & English), effectively doubling the application's potential user base.

CERTIFICATIONS

Postman Student

2025

Issued: October

- Certified in API fundamentals and testing - proficiency in request chaining, collection management, and automated testing workflows.

Training Program on Linux Systems Administration & DevOps Engineering. Completed: December 2025

WSO2

- Acquired hands-on expertise in Linux server management, CI/CD pipeline automation, and cloud infrastructure orchestration through a rigorous industry-aligned training program.