

Mariyam Nazaa Zuhair

Senior Software Developer

6+ years of experience

"Fast. Secure. Scalable. Pick all three."

CONTACT

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- 🌐 github.com/N4ZEN
- 📍 Maldives

SOCIALS

- 🐙 GitHub @N4ZEN
- 🌐 LinkedIn @naza-zuhair

LANGUAGES

- 🇲🇻 Dhivehi (Native)
- 🇬🇧 English (Fluent)

Senior Software Developer with 6+ years of experience building secure, scalable, and high-performance systems across mobile, ML/AI, and cloud platforms. I've delivered enterprise-level React Native apps, native Android/iOS modules, real-time OCR/vision pipelines, and distributed backend microservices. I enjoy designing complex technical solutions, creating clean and efficient architectures, and shipping reliable, production-ready software.

★ Professional Projects



Bank of Maldives Plc — Mobile Banking App

Senior Software Developer | 2023-2025

Led end-to-end development of the national mobile banking app serving 100k+ daily users, ensuring enterprise-grade security, reliability, and performance.

- Implemented secure OAuth2 authentication, biometric unlock flows, encrypted session handling, and token lifecycle logic aligned with compliance requirements.
- Integrated real-time OCR pipelines (VisionCamera + JSI processors) for scanning account numbers and documents.
- Led major platform upgrade React Native 0.66 → 0.77, resolving AGP, Hermes, SDK, Kotlin/Swift, and third-party breaking changes.
- Rewrote the React Native navigation stack, improving transition speed, resolving stack corruption, and enhancing UX consistency.
- Introduced Dark Mode with dynamic theming + accessibility support.
- Implemented Passkeys (WebAuthn) enabling secure passwordless login.
- Improved responsiveness via MobX caching, reducing redundant network calls across core banking flows.
- Raised stability by optimizing memory usage, bridge communication, and native navigation edge cases.
- Delivered multiple features across payments, transfers, notifications, inbox/messages, service requests, and account management.
- Ensured strict security best practices: encrypted storage, sensitive data redaction, secure network flows, certificate pinning considerations.



AI Document Intelligence System — OCR, Extraction & Fraud Detection

Lead Engineer | 2025

Designed and built an end-to-end intelligent document-processing system for receipts, invoices, and structured business documents.

- Developed hybrid-native OCR pipelines using VisionCamera + JSI modules for low-latency text extraction.
- Implemented document classification, key-value extraction, normalization, and entity matching.
- Designed fraud-detection heuristics identifying tampered totals, mismatched metadata, duplicates, and inconsistencies.
- Improved accuracy through preprocessing (denoising, thresholding), tokenization, regex rules, and confidence scoring.
- Reduced manual review workload and significantly accelerated document-processing throughput.



Heylhi Environmental Monitoring App — SIGS

Full-Stack Developer | 2022

Developed Version 1.0 and contributed to Version 2.0 of a national citizen-science coastal monitoring platform.

- Full-stack build using React Native, Laravel, MongoDB.
- Implemented structured environmental surveys, geotagging, media uploads, and disaster-reporting workflows.
- Designed data-capture flows for coral bleaching, coastal erosion, trash accumulation, and habitat assessments.
- Built offline-first sync for remote islands with poor connectivity.
- Developed backend APIs, pipelines, and dashboards supporting long-term scientific analysis.



React Native Dive Logging & Environmental Monitoring App — SIGS

Full-Stack Developer | 2021

A social + scientific platform used by divers across the Maldives.

- Architected full-stack system with React Native, Laravel, MongoDB.
- Built dive logs, site metadata, environmental indicators, and profile analytics.
- Implemented user accounts, media uploads, dive-site databases, and sharing features.
- Designed offline-first data storage & synchronization for field usage.

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Maldives

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Dhivehi (Native)

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Interests

- Reading
- Traveling
- Creative Art
- Game Development

Core Strengths

- Technical Communication
- Collaboration
- Problem Solving
- Systems Thinking
- Project Ownership



Selected Technical Projects

Freelance | 2019 - Present

Various technical projects including OCR modules, offline-first architecture, native UI components, and ML models.

- VisionCamera Real-Time OCR & Frame Processing Modules (JSI + Native Code)**
Developed custom frame processors using native JSI logic, image preprocessing, and segmentation for low-latency OCR in financial applications.
- Offline-First Data Collection Architecture (React Native + Laravel + MongoDB)**
Built incremental sync queues, conflict resolution, and local caching for environmental & field-data applications.
- Avas Ride Driver App — Native UI Modules (Android/Kotlin)**
Implemented native Kotlin UI overlays for real-time ride requests, improving responsiveness and reliability in a hybrid RN-native architecture.
- Customer Segmentation & Prediction Model (Python)**
Built ML clustering models (K-means + hierarchical) achieving 86.8% accuracy.
- Business Intelligence System (SAS-EM + Power BI)**
Built predictive BI models improving user engagement by 75%.
- Additional Projects**
School management systems (JS + MS SQL), C++ reservation systems, converters, and React/MongoDB order-management modules.

Skills

Mobile Development

- React Native (Fabric, TurboModules, JSI)
- Android (Kotlin/Java)
- iOS (Swift)
- Native modules
- UI overlays
- VisionCamera OCR
- Navigation & auth flows

Machine Learning & AI

- OCR pipelines
- Document processing
- Fraud heuristics
- Python
- NumPy
- Pandas
- Scikit-Learn

Backend & Full Stack

- Laravel
- Node.js
- Express.js
- REST APIs
- OAuth2
- JWT
- WebAuthn Passkeys
- Offline-first systems

Databases

- MongoDB
- MS SQL

Cloud & DevOps

- Linux
- Nginx
- Docker (basic)
- Deployments: DigitalOcean
- GitHub Actions CI/CD

Architecture & State Management

- MobX
- Context API
- Caching strategies
- Modular patterns
- Clean architecture

Tools



VS Code



React



Figma



Git



Docker



MongoDB



Android Studio



Xcode

Education



BSc (Hons) Computer Science With Data Analytics

Asia Pacific University (APU), Malaysia & Staffordshire University, UK

⌚ Dual Degree

📅 2021



Mathematics • Biology • Chemistry • Physics • English AS

A-Levels

⌚ Leadership: Prefect Leader

📅



O-Levels: Biology, Chemistry, Physics, Mathematics, English, Accounting

Sharafuddin School

⌚ Leadership: Deputy School Captain, VP English Club, Editor, BIOTA Exec, I³ Event Manager

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