Ayesigwa Ronnie

Full Stack Software Engineer and Lifelong Learner

ayesigwaronnie@gmail.com https://portfolio.builtbyron.com

Summary

I'm a fullstack developer, optimist, and life long learner. I create web-based solutions and digital experiences that prioritize accessibility and inclusivity.

Profiles

github
TheBoyWhoLivedd

Experience

Hitaji Technologies (Part-Time) Uganda
Full stack developer June 2020 - Present
Designing and developing full stack solutions for various clients, including a crucial material schedule calculator app for the Uganda Revenue Authority VAT unit. Spearheaded the building of multiple solutions for various clients. Focused on delivering high-quality, robust production code, and contributing to collaborative problem-solving, sophisticated design, and quality product.

Uganda Revenue Authority Uganda
Software Engineer June 2022 - June 2024
Design and build dynamic full-stack solutions tailored to supercharge the business operations of the Uganda Revenue Authority! In tandem with a power-team of developers, consistently delivered top-notch, unyielding production code. Always at the forefront of collaborative brainstorming, cutting-edge design, and impeccable product output
https://ura.go.ug/en/

Turing (Google - Deepmind)
Node/React Engineer July 2024 - Dec 2024
Tested and evaluated Gemini's coding capabilities on open-source repositories to identify implementation gaps, leveraging insights to create RLHF datasets for advanced AI model training. Gained extensive expertise in complex coding structures, like parsers and linters, while contributing to the refinement and reliability of state-of-the-art AI coding models.

Elite Software Automation
Software Design Engineer Jan 2025-September 2025
Designing and implementing complex, end-to-end digital systems that streamline and scale operational workflows across many industries such as education, auto finance, marketing, and nonprofit organizations

Trilogy (Khoros)
Software Engineer September 2025 - Present

- Lead AWS infrastructure cost optimization initiatives for Khoros' enterprise SaaS products (Care, Communities, Spredfast), achieving significant annual savings through strategic cloud resource management and automation.
- Spearheaded ElastiCache consolidation project to migrate 90 Redis clusters to shared Valkey 8.0 architecture, targeting >$146K annual savings while improving operational efficiency and scalability.
- Reduced CloudWatch GetMetricData API costs by ~$129K/year by consolidating duplicate Datadog integrations and migrating monitoring resources between organizations using Python automation scripts.
- Analyzed CloudFront traffic patterns for high-volume communities (100M+ daily requests) using AWS Athena and Parquet transformations to identify cache optimization opportunities and reduce origin bandwidth costs.

https://www.khoros.com/

Projects

Hitaji Edu 360

- Architected and developed a production React Native mobile application using Expo SDK 53 and React 19, implementing feature-sliced clean architecture with 23+ domain modules serving school administrators and teachers.
- Engineered offline-first attendance tracking with local queue management and automatic synchronization, enabling teachers in low-connectivity environments to record attendance without data loss.
- Implemented secure OAuth2/OIDC authentication with PKCE flow, featuring automatic token refresh, MMKV-based secure storage, and granular role-based access control across 66+ permission scopes.
- Integrated real-time push notifications using Firebase Cloud Messaging (FCM/APNS) with deep linking support, background handlers, and in-app notification banners using Expo Notifications.
- Built responsive UI component library using NativeWind (TailwindCSS), Reanimated animations, and Moti, with full dark mode support and tailwind-variants for consistent styling patterns.
- Developed multi-service API integration layer connecting to multiple microservices (Auth, Core API, Notifications, AI Chat) with TanStack React Query for caching, Axios interceptors for token management, and Zustand for local state.
- Implemented complex data-entry workflows including bulk assessment score entry, class attendance marking with optimistic updates, and student enrollment verification processes.

AutoFinance360 (BHPH Dealerships)

- Engineered an end-to-end dealership operations platform that digitized and unified processes across sales, underwriting, inventory management, and collections for a multi-entity organization.
- Developed core workflow automation modules for lead acquisition, underwriting, and contract generation reducing manual data entry and processing time
- Architected a centralized inventory tracking system with real-time audit trails and GPS-based location services, optimizing vehicle-readiness operations (procurement, inspection, repair, distribution) across 6+ locations.
- Reduced early loan defaults by architecting a risk assessment module that flagged mechanical and financial risk factors pre-deal.
- Designed and prototyped a unified vendor management portal to standardize invoice approvals, track mechanic reliability, and validate repair quality.

FaithOps Member Engagement System

- Developed a comprehensive member lifecycle management system, automating visitor registration, onboarding, and transitions (e.g., Child to Youth) using demographic-based triggers and branching logic..
- Designed and implemented over 15 program-specific workflows for diverse operations including daycare, university enrollment, event management, and online subscriptions, standardizing processes across departments.
- Improved operational accountability by engineering automated feedback loops and SOP adherence monitoring into the core platform.
- Engineered a donation and reconciliation workflow, integrating OCR and manual review steps to ensure financial data integrity and streamline discrepancy resolution.

Hitaji Save

- Integrated an AI agent capable of transforming voice commands and extracting transaction data from receipt images to allow users upload bulk transactions in a single click.
- Utilized React for the front-end to deliver an intuitive and responsive user experience.
- Built robust backend services using Node.js, ensuring seamless processing of AI-driven data and efficient budget tracking functionalities.
- Containerized the application with Docker to simplify deployment and maintain consistent development and production environments.

https://save.hitajitechnologies.com/

AEOI Portal

- The project aimed to ensure compliance with global tax reporting standards and streamline the submission and management of financial information by local financial institutions.
- Utilized React for front-end development to create a user-friendly interface for financial institutions to submit tax information.
- Developed backend services using Java with Quarkus framework, ensuring high performance and scalability of the portal.
- Containerized applications using Docker to streamline deployment processes and maintain consistent development environments.

Skills

Web Technologies
HTML5, JavaScript, CSS

Mobile Development
React Native, Expo (SDK 53), NativeWind, React Native Reanimated, Expo Router, Moti

Frameworks
React, NodeJS, TailwindCSS, NextJS, React native, Expo

Tools
Git, Github, Docker

AWS
Athena, Lambda, Aurora, CloudFront, ElastiCache, EC2, EKS

DevOps
Datadog, CloudWatch, ArgoCD, Terraform

Interests

Swimming

Reading

Languages

Javascript

Python

Java