Ramindu Lakshan Jayaweera

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Software Engineer skilled in Flutter, React, and Node.js, with a strong passion for developing user-centric mobile and web applications. Proficient in machine learning, deep learning, and full-stack development. Recently graduated with a BEng (Hons) in Software Engineering, backed by hands-on project and research experience.

WORK EXPERIENCE

Associate Software Engineer   **Jun 2024 - Dec 2024**
Shield Technologies (Pvt) Ltd   **Sri lanka**

- Developed a **cross-platform mobile application** using **Flutter, Dart, Firebase, and REST APIs**, ensuring high performance and scalability.
- Led the frontend development team, ensuring 100% of sprint goals were met on time.
- Coordinated task distribution using **Agile practices**, improving team productivity and feature delivery consistency.

Trainee Software Engineer   **Jun 2023 - Jun 2024**
Generation ALPHA (Pvt) Ltd   **Sri lanka**

- Developed a mobile application for the Generation Alpha platform using **Flutter**, improving accessibility and user interaction.
- Designed and implemented a web application for the same platform using **React**, ensuring consistency and a seamless cross-platform experience.
- Maintained and optimized the company website using wordpress, enhancing overall user engagement.
- Collaborated in an **Agile environment**, working closely with cross-functional teams to ensure smooth delivery.
- Spearheaded **weekly knowledge-sharing sessions** to cross-train team members on Flutter best practices and API integration.

EDUCATION

BEng (Hons) Software Engineering (Upper Second Class Honours)   **Jan 2022 - May 2025**
Informatics Institute of Technology in collaboration with University of Westminster, UK

Key Modules:
- Computer Systems Fundamentals
- Web Design and Development
- Object-Oriented Programming
- Database Systems
- Server-Side Web Development (Basic & Advanced)
- Machine Learning and Data Mining
- Algorithms: Theory, Design, and Implementation
- Cyber Security
- Formal Methods
- Concurrent Programming

SKILLS

Database Management: MySQL, SQLite, MongoDB, postgreSQL

Web Development: React.js, Node.js, Express.js, .NET, Flask, HTML, CSS, PHP, WordPress

Mobile Development : Flutter, Dart

Programming Languages: Java, Python, C++, C#, VB, JavaScript, R

Tools & Platforms: PyCharm, VS Code, IntelliJ IDEA, Android Studio, Docker, Kubernetes, Postman(API testing)

Hosting Services: azure

PROJECTS

Early skin cancer detection system using deep learning (Final Year Individual Project)
Developed a deep learning-based web application to assist doctors in early skin cancer detection by classifying skin lesions into seven categories using state-of-the-art CNN architectures.

- Trained and fine-tuned convolutional **neural networks** (**CNNs**) in **PyTorch** to achieve high-accuracy lesion classification.
- Designed a responsive front-end with **React.js** for intuitive visualization of results.
- Built a RESTful back-end using **Node.js** and **Flask** to handle model inference and user requests.
- Deployed the deep learning model as an API, enabling real-time predictions.
- Structured and managed patient data efficiently using **MySQL** for scalable storage.
- Optimized the full-stack pipeline to ensure low-latency performance in clinical settings.

Soil Type Detection and Plant Recommendation Web Application (Group Project)
Developed a web application to assist farmers in identifying soil types and recommending optimal crops for cultivation, enhancing agricultural productivity.

- Implemented a deep learning model using **PyTorch** to classify soil types based on input images or sensor data.
- Designed and built an interactive front-end with **HTML**, **CSS**, and **JavaScript** for seamless user experience.
- Developed a robust back-end system in **Python** to process soil data and generate crop recommendations.

- Integrated **MySQL** for efficient storage and retrieval of soil profiles, crop data, and user queries.
- Deployed the application to ensure accessibility for farmers in real-world agricultural settings.

Inventory Mangement System

Developed a comprehensive inventory management system to manage products, stock levels, and inventory operations efficiently for small to medium-scale businesses.

- Built a responsive and user-friendly front end using **React.js** for real-time inventory tracking and management
- Developed a robust back end using **Spring Boot**, implementing RESTful APIs for inventory operations
- Designed and managed a **MongoDB** database to store product details, stock levels, and transaction records
- Implemented CRUD functionalities for products, categories, and inventory records
- Ensured scalability and data consistency through proper API design and database schema modeling
- Followed best practices in full-stack development to ensure maintainability and performance

Mobile Video and Audio Call Platform

Developed a real-time mobile and web-based video and audio calling platform enabling seamless communication across devices.

- Built the web application using **React.js** and the mobile application using **Flutter**, ensuring smooth cross-platform user experience
- Developed the back end using **Node.js** to manage **WebRTC signaling**, call initiation, session lifecycle, and real-time communication logic
- Implemented **WebRTC peer-to-peer sessions** for low-latency audio and video streaming, including session creation, ICE candidate exchange, and connection management
- Integrated **Firebase Authentication** for secure user login and identity management
- Utilized **Firebase Realtime Database / Firestore** for real-time call state synchronization and push notifications
- Used **MongoDB** to store user profiles, call metadata, session logs, and application data
- Implemented secure session management and call authorization mechanisms
- Optimized real-time data flow and media handling to ensure stable connections and minimal latency

Secure API Middleware Service for RestCountries.com

Developed a high-performance intermediary API service to securely retrieve, process, and filter country data (name, currency, capital,languages, flag) with role-based access control and API key management.

- Engineered a scalable **Node.js/Express** middleware to proxy and optimize requests to RestCountries.com.
- Implemented **JWT** authentication and rate-limiting to prevent abuse and unauthorized access.
- Designed a **SQLite** database to cache frequently accessed country data, reducing external API calls by 40%.
- Containerized the service using **Docker** for consistent deployment across environments.
- Built an admin dashboard for API key management and usage analytics.
- Secured sensitive endpoints with role-based permissions.

TravelTales – Global Travel Blog Platform

Built a community-driven travel blog integrating real-time country data (flags, currencies, capitals) with user-generated content.

- Developed a full-stack application using **Node.js**, **Express**, and **React.js**.
- Designed and implemented a **SQLite** database to store user-generated content and country data.
- Integrated real-time APIs to dynamically display country-specific information (flags, currencies, capitals).
- Containerized the application using **Docker** for seamless deployment and scalability.

DogBook: Pet Shop and Communication Mobile App

Developed a comprehensive mobile application for pet owners and administrators, featuring an integrated pet shop and real-time chat support.

- Engineered the user-facing app with **Flutter** and **Dart**, providing a smooth and engaging shopping experience for pet products and services.
- Implemented **Firebase Firestore** to manage product listings, user profiles, chat messages, and order histories securely in the cloud.
- Integrated **Firebase Authentication** for secure user sign-up, login, and role-based access control between customers and administrators.
- Developed a dedicated Admin app, allowing staff to manage inventory, process orders, and respond to customer inquiries in real-time.
- Enabled in-app chat functionality, empowering users to communicate directly with administrators and receive prompt assistance.
- Utilized **Firebase Cloud Messaging** to deliver instant notifications for order updates and new chat messages.
- Designed intuitive interfaces to streamline navigation, browsing, and purchasing workflows for both users and administrators.

CERTIFICATIONS

Certifications in Learning : Java, Python and Machine Learning, IBM AI Engineering Professional Certificate.
Competitions : Microsoft Imagine Cup competition, CodeSprint 7.0 Hackathon, Openhack 2.0 Hackathon, UOW Programming, Maths & Logic Hackathon.

LANGUAGES

Sinhala (Native proficiency) • **English** (Full professional proficiency)

REFERENCES

Rasanjalee Rathnayake (Lecturer, School of Computing, Informatics Institute of Technology) • +94 742443301 Email : rasanjaleesrathnayake@gmail.com

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