

PERSONAL DETAILS

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 [Portfolio URL](#)

 [Linked in URL](#)

 [GitHub URL](#)

TECHNICAL SKILLS

Programming Languages

Python, JavaScript, TypeScript, Java, Kotlin, C, C++

Mobile & Web Development

React, Vite, React Native / Flutter, Tailwind CSS, HTML, Axios, Firebase Authentication, Firestore

Backend & API Development

Node.js, Express.js, Flask
REST API Design
JWT Authentication, Session Handling
Role-Based Access Control

Machine Learning

TensorFlow, Keras, PyTorch
MediaPipe (Hand/Pose landmarks)
OpenCV
Data preprocessing (NumPy, Pandas,)

Other

Docker, Docker Compose
CI/CD pipelines (GitHub Actions)
Version control with Git & GitHub

SOFT SKILLS

Teamwork & Collaboration

Problem-Solving

Communication

Adaptability & Continuous Learning

Attention to Detail

CERTIFICATIONS

[DevOps Foundations](#)

[Docker](#)

[Docker Compose](#)

[Docker Products](#)

[Microsoft Azure AI Essentials](#)

[Bridging program SLTC](#)

[Python For Beginners](#)

SANDARU KAUSHAN

Software Engineering **UNDERGRADUATE**

About Me

Motivated and detail-oriented Software Engineering undergraduate with hands-on experience in mobile, web, and machine learning development. Skilled in Kotlin, Java, C, C++, Python, TypeScript, and modern web technologies. Experienced in building functional, user-friendly applications featuring authentication, notifications, APIs, and data persistence. Proficient in full-stack development with React, Node.js, and the MERN stack, and comfortable working with Docker, Kubernetes, and CI/CD workflows. Actively engaged in ML projects, including model training, optimization, and integrating ML into real-world applications. Eager to bring technical expertise, problem-solving ability, and creativity to a collaborative internship environment and contribute to impactful software solutions.

Education

SRI-LANKA INSTITUTE OF INFORMATION TECHNOLOGY

BSc (Hons) In Software Engineering

Projects

VOXO-POS System

Technologies : MERN - MongoDB, SQL Lite, Excel.js, Nodemon, React, Tailwind css, JWT, Github

A full-featured POS platform designed for retail operations, supporting inventory management, sales processing, and financial analytics. The Billing Screen offers real-time sales with barcode scanning, auto total calculation, discounts, tax handling, and a balance/return money system that calculates customer change instantly. Inventory Manager monitors stock levels, batches, and expiry dates, while Reports Page provides analytics with Excel export. Additional modules include Expense Manager for cost tracking, a real-time KPI Dashboard, and role-based user access for Admin, Salesman, and Data Entry using secure JWT authentication.

LUMINA -Solar Management System

Technologies : MERN - React, JavaScript, MongoDB, Tailwind css, Trello

A comprehensive sustainability platform designed to optimize solar energy usage, promote recycling, and support green marketplaces. Includes EchoTrack for real-time energy analytics, BrightBin for waste tracking and recycling suggestions, and a Vendor Portal enabling recyclers to manage pickups and pricing. The system also includes feedback integration to improve user and vendor interactions. Built to encourage environmental responsibility through data-driven insights and seamless collaboration.

Agro-Care - Plant Health Detection System

Technologies : ML- Python, Firebase, PyTorch, Efficient Net, React, TypeScript, Vite, Tailwind CSS, TensorFlow

Developed an end-to-end plant disease diagnostics platform enabling farmers to upload crop images and receive AI-powered health analysis and actionable agronomy advice. Architected the system with a React + Vite frontend, Firebase authentication, an Express/Node.js backend for routing and authentication, and a FastAPI microservice hosting an EfficientNet-based PyTorch classifier with Grad-CAM explainability. Designed ML pipelines using PyTorch, Albumentations, and MLflow-ready configurations for reproducible training. Ensured reliable operations with Docker Compose orchestration, secure environment variable handling, Prometheus instrumentation, and centralized logging across microservices.

LANGUAGE

Sinhala
English

OTHER

Video editor IEEE (Robotic And Automations Society [RAS])

Talk To Me – Real-time Sign Language Translator

Technologies : ML– TensorFlow, Keras, MediaPipe, OpenCV, FastAPI, Python, React, TypeScript, Vite, Tailwind CSS, WebRTC, Web Speech API, Axios, WebSockets

Developed a real-time sign-language translation system that learns custom gestures using TensorFlow LSTM models trained on MediaPipe hand-landmark sequences. Implemented a FastAPI backend for prediction serving and a React + TypeScript frontend for live gesture recognition, text output, and text-to-speech.

VALUTY–Expense Tracker App (Android Project)

Technologies : Kotlin, Shared Preferences, Internal Storage

Built a feature-rich personal finance management app that allows users to record income and expenses, visualize spending trends using pie charts, and manage custom categories. Implemented secure PIN-based authentication, budgeting tools, and onboarding flows with full input validation. Added data export/import, cloud/local backup & restore, multi-currency support, and scheduled notification alerts for reminders. Designed to help users achieve better financial tracking and control.

MyWallet – Online Banking System

Technologies : Java, MySQL, HTML, CSS, Tomcat, Servlet

Developed an online banking platform featuring secure login, personalized dashboards, fund transfers, transaction history management, and bill payment services. Includes an admin panel, real-time notifications, and a promo-based reward system to enhance user engagement.

My Own Projects

Voxo pos system | Agrocare ML | Talk-To-Me

REFERENCES

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