G C H Oshan Madawa
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ABOUT ME

A confident and energetic Computer Science and Engineering undergraduate with strong foundations in mathematics, software engineering, and machine learning. Known for thriving in fast-paced environments and contributing effectively to team-based projects. Motivated by challenges and committed to personal and professional growth.

EDUCATION

University of Moratuwa — Moratuwa, Sri Lanka
- *BSc. Eng (Hons), Computer Science & Engineering (Minor in Mathematics)* — *June 2021 – June 2025*
  Second Class Upper Division

Rahula College — Matara, Sri Lanka
- *G.C.E. A/L (Physical Science Stream); 3As; Z-Score: 2.58; IR: 142* — *Dec 2013 – Aug 2019*

EXPERIENCE

- **Karmo (Pty) Ltd** — Brisbane, Australia
  Software Engineering Intern — *Nov 2023 – May 2024*
  - Full-stack development of the flagship product Vouch and MyKarmo using modern web technologies.
  - Architected and implemented a Customer Score Engine that reduced onboarding time by 30% and improve segmentation accuracy
  - Developed automated test suites using Cypress in the Test Automation Project, enhancing test coverage and accelerating release cycles.
  - *Tech Stack: React, TypeScript, NextJS, NodeJS, ExpressJS, PostgreSQL, Tailwind CSS.*

- **Director of Web**
  UoM Leos 22/23 — *June 2022 – June 2023*
  - Conducted a Web Development Workshop for Leos
  - Started a Web Development Competition called Devathon 1.0
  - Developed the Leo Scroll App

PROJECTS

- **Explainable ML models for analyzing Emotional Valence from fMRI data**: (Final Year Project)
  Focused on enhancing model explainability for predicting valence from fMRI data, with the implementation of Graph Neural Networks (GNN) for improved model performance and interpretation.
  [Tech Stack :- TensorFlow, Keras, Pytorch, Scikit-learn, Matplotlib, Numpy, LRP, SHAP]

- **AI-Powered Mock Interview Platform (github)** — *March 2025 – May 2025*
  Developed a full-stack web platform that simulates real-time technical interviews using AI. The system generates custom interview questions by analyzing user CVs with AI, then conducts an interactive video meeting where an AI avatar asks the questions using text-to-speech. Implemented peer-to-peer video chat with WebRTC and WebSocket signaling, enabling users to respond via mic and camera for realistic practice sessions.
  [Tech Stack :- Spring Boot, ReactJS, PostgreSQL DeepSeek API, WebRTC, WebSockets]

- **Real-Time Hiker Monitoring App (github)** — *April 2025 – May 2025*
  TrailGuard is a mobile application developed to monitor and ensure the safety of hikers in remote areas. It focuses on efficient integration of mobile sensors, real-time activity recognition, local and cloud data synchronization, and critical safety features such as SOS alerts and emergency contact configuration.
  [Tech Stack :- React Native, JavaScript, FireBase]

- **Driving License Test Application (github)** *Aug 2023 – Oct 2023*
  DriveSmart is an innovative online learning web application and mobile application created to modernize the process of preparing for driving license tests in Sri Lanka.
  [Tech Stack :- ReactJS, React Native, NodeJS, MongoDB, ExpressJS, AWS, Bootstrap, PayHere]

- **Email Client** *June 2022 – Aug 2022*
  Java-based command-line application for managing recipients, sending emails, and automating birthday wishes. Easily add new recipients, compose emails, and track sent messages.
  [Tech Stack :- Java]

SKILLS

- **Programming Languages**
  Python, JavaScript/TypeScript, C++, Java
- **CI/CD and Version Controlling**
  Git, Docker
- **Technologies/Practices**
  ReactJS, NodeJS, Spring Boot, NextJS, ExpressJS, React Native, Linux
- **Database Management**:
  PostgreSQL, MySQL, Firebase Firestore, MongoDB
- **Software Development Methodologies**
  Agile (Scrum)

COURSES AND CERTIFICATIONS

- **Supervised Machine Learning: Regression and Classification** :- DeepLearning.AI(cert)
- **Introduction to Large Language Models** :- Google(cert)
- **Introduction to Generative AI** :- Google(cert)
- **JavaScript Essential Training** :- LinkedIn(cert)
- **Front-End Web Development with React** :- Coursera

ACHIEVEMENTS

- **Dean's List :** *Semester 7 (SGPA 3.84)*
- **mSpace Code Blast National Hackathon 2023 :** *Finalist - Built a Multi language Translation Service*
- **Sports :** *Member of University of Moratuwa Badminton Team – UMISF 2023*

REFEREES

Dr. Charith Chitraranjan
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