SITHIRA JAYANITHU

Software Engineering Undergraduate

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SUMMARY

Dedicated undergraduate student at Westminster University pursuing a degree in Software Engineering, I am committed to leveraging my education and skills to contribute effectively in the field of technology. With a passion for problem-solving and a keen interest in software development, I aim to continuously learn and grow in order to make meaningful contributions to innovative projects.

PROJECTS

- **Wakeel - Car Rental Management System**

Wakeel is a web-based platform developed as part of our Software Development Group Project (SDGP) at the Informatics Institute of Technology (IIT) Sri Lanka. Built using Next.js, Hono (TypeScript), and MongoDB, Wakeel aims to enhance Sri Lanka's car rental industry by providing a secure and transparent platform. Key features include automated legal agreements, secure payment gateways, eKYC registration, GPS tracking integration, and AI-powered search and filtering. The platform ensures improved security, vehicle transparency, and a user-friendly interface for both renters and vehicle owners.

- **@jayanithu/readmi - Universal README Generator**

@jayanithu/readmi is a Node.js-based CLI tool designed to generate professional and structured README files for various programming projects. Built using Node.js, Inquirer.js, Markdown, and Chalk.js, it automates the documentation process to ensure clarity and consistency across project repositories. The tool supports multiple project types and includes essential sections like installation, usage, and contribution guidelines, helping developers save time and improve documentation quality.

- **SkyCast - Modern Weather App**

SkyCast is a sleek and user-friendly weather application developed using React (Vite) and Tailwind CSS, with weather data powered by the OpenWeather API. Designed to provide a seamless user experience, SkyCast offers key features like voice search, dark mode, dynamic weather backgrounds, and multi-language support. The app also includes auto-detect location functionality for instant weather updates based on the user's current position. Leveraging tools like LocalStorage, Web Speech API, and Geolocation API, SkyCast ensures a modern and intuitive experience for users worldwide.

- **AI Handwriting on Screen with Hand Gestures**

This innovative project enables users to draw on the screen using their hand as a virtual pen, powered by MediaPipe Hand Tracking and OpenCV. It leverages AI to detect hand movements and gestures for interactive drawing, erasing, and screen clearing. Key features include the ability to draw using the index finger, switch colors with a pinch gesture, erase small areas with circular motions, and clear the entire screen by opening all fingers. The system offers real-time hand tracking for a smooth and responsive experience. Developed using Python, this project integrates computer vision techniques to provide a creative and engaging user interface.

EDUCATION

BEng (Hons) Software Engineering   2023 - 2027
UNIVERSITY OF WESTMINSTER

Foundation Certification   2022 - 2023
INSTITUTE OF INFORMATION TECHNOLOGY

St Peter's College Negombo   2007 - 2020

CERTIFICATIONS

- Foundation Certificate – Informatics Institute of Technology (IIT) (2023)
- Participant certificate for CodeSprint 8 (2024)
- Angular Essential Training – LinkedIn Learning (2024)
- Participant certificate for Google Developer Group DevFest 2023 (Sri Lanka)
- Python (Basics) – HackerRank (2024)
- Java (Basics) – HackerRank (2024)
- Learning Spring 6 with Spring Boot 3 – LinkedIn Learning (2024)

TEAMWORK & LEADERSHIP

- Volunteered as a mentor for Foundation and first-year software engineering students, providing guidance and support on coding challenges and project development.
- Led a team of 4 to develop an e-commerce website for a freelance project, where I managed timelines, assigned tasks, and ensured the project was delivered on schedule. My role involved coordinating between front-end and back-end developers, ensuring smooth integration of APIs, and conducting final testing.

SKILLS

- Skilled in programming languages such as Java, Python, and JavaScript.
- Experienced in web development frameworks like Next.js, React, and Angular.
- Skilled in backend technologies including Spring Boot, Node.js, and Hono.
- Experienced in developing interactive UI features using Tailwind CSS and responsive design principles.
- Knowledgeable in APIs and data integration using OpenWeather API, MediaPipe, and OpenCV
- Experienced in version control and collaboration tools such as Git, GitHub.
- Experienced in real-time computer vision solutions leveraging MediaPipe and OpenCV.

LANGUAGES

- English
- Sinhala

REFEREES

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