

Kushan Sankalpa

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Personal Portfolio — No 185/D, Hinguraara, Embilipitiya, Sri Lanka

About me

I am a proactive Software Engineering undergraduate with a robust foundation in full-stack development and object-oriented programming. With hands-on experience in designing scalable and efficient software solutions, I excel in analytical thinking and problem solving. I thrive in collaborative environments and am dedicated to continuous learning, ready to leverage my technical expertise and innovative mindset to contribute to impactful technology projects.

Skills

Technical Skills: Object-Oriented Programming, Full-Stack Web Development, Database Management, API Design & Integration

Programming Languages: Python, Java, Html, Css, JavaScript, PHP, SQL, MySQL

Frameworks Spring Boot, React, Node.js, Flutter

Tools: IntelliJ IDEA, VS Code, Figma, Git, Github, Postman, Word, Excel, PowerPoint, Click-up

Communication Skills: English (*Professional Proficiency*), Sinhala (*Native Proficiency*)

Education

UNIVERSITY OF WESTMINSTER 2024 - Present
Undergraduate BEng (Hons) Software Engineering

First Year Modules

- Trends in Computer Science (76)
- Computer Systems Fundamentals (91)
- Software Development I - Python (82)
- Web Design and Development (86)
- Mathematics for Computing (81)
- Software Development II - java (83)

Second Year Modules (Grades: Pending)

- Object Oriented Programming (78.5)
- Database Systems (85.5)
- Software Development Group Project
- Server-Side Web Development
- Algorithms: Theory, Design and Implementation
- Software Engineering Principles and Practice (76)

INFORMATICS INSTITUTE OF TECHNOLOGY May 2023 – Dec 2023
Foundation Certificate in Higher Education (Distinction)

Sri Bodhiraja College, Embilipitiya 2008 – 2019

Projects

Wali Pilla Sinhala Learning App March 2025

- Developed a gamified mobile platform tailored for Sinhala language learning, aimed at children from upper preschool to grade 5 including those in the Sri Lankan diaspora.
- The app focuses on developing essential language skills such as grammar, spelling, writing, and pronunciation through immersive, interactive exercises.
- Constructed with **Flutter**, it offers intuitive lessons, dynamic tracing activities, and engaging vocabulary drills.
- A robust backend built on **Node.js** and **MongoDB** ensures efficient performance and scalability, while **Firebase** integration provides real-time analytics and secure authentication.
- This project harmonizes advanced development tools with innovative educational strategies to enhance language proficiency and strengthen cultural connections.

Personal AI Chatbot March 2025

- Developed a real-time conversational agent using **Python**, **OpenAI's gpt-3.5-turbo**, and **Gradio**.
- Maintains a dynamic conversation history to generate context-aware responses using OpenAI's ChatCompletion API.
- Integrated a web interface with **Gradio** for seamless, interactive user experience.
- Implemented robust error handling to manage API call issues, demonstrating proficiency in API integration and NLP.

- Developed an AI-powered text correction tool using a pre-trained **T5 model** for grammar and spelling corrections.
- Built an interactive web interface with **Gradio** to enable users to input text and view corrected output in real-time.
- Integrated **Hugging Face Transformers** to leverage state-of-the-art natural language processing capabilities.

Ticket Management System

Dec 2024

- Developed a **real-time event ticketing system** utilizing a multithreaded producer-consumer pattern for dynamic ticket allocation and retrieval.
- Implemented a responsive frontend with **React** and a robust **Spring Boot** backend integrated with **SQLite** for efficient, lightweight data management.
- Ensured effective synchronization, configuration persistence, and scalability to support high-volume ticket transactions.

Multi Functional Calculator

Dec 2023

- Developed a web application using **HTML**, **CSS**, and **JavaScript**.
- Features include a currency converter, tools for calculating perimeter, area, and volume for various shapes, as well as a scientific calculator for advanced computations.

Other projects

- Walipilla Markerting Webpage
 - Hotel Booking Management System
 - Student Management System :
- Feb 2025

January 2025

May 2024

Certifications

- Generative AI in Learning and Development
 - Python for Beginners (University of Moratuwa)
 - Java Object-Oriented Programming
 - Learning Spring with Spring Boot
 - Angular Essential Training
 - React.js Essential Training
- Certificate:

Certificate:

Certificate:

Certificate:

Certificate:

Certificate:

Feb 2024

Feb 2024

Nov 2024

Nov 2024

Nov 2024

Nov 2024

Achievements

- Ranked **10th in Sri Lanka and 170th globally** in the **IEEEExtreme 18.0 Competition**
 - Reached the finals (Top 20) in **Benchmark 3.0** organized by **AIESEC in SLIIT** as part of **Goose 4.0**
 - Participated in the **international hackathon** organized by the University of Westminster
 - Participated in **Haxpedition: Mini Hackathon** organized by the **IEEE student branch of IIT**
- 2024

2024

2024

2024

Extra-curriculars

- Informatics Institute of Technology

- Member of the **IEEE Community** at **IIT**

2024 - Present
- Sri Bodhiraja College

- prefect
 - Member of Maths and Science Society

2017

2017

References

Mr. N G Chandana Srilal

Senior Software Engineer

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