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, Web Development, Mobile App Development, Data Structures & Algorithms, Database Management, API Design & Integration

Programming Languages: Java (*Proficient*), Html (*Proficient*), Css (*Proficient*), python (*Intermediate*), Dart (*Intermediate*), PHP (*Beginner*), JavaScript (*Beginner*)

Frameworks & Tools: IntelliJ IDEA, VS Code, Flutter,, Figma, Git, Github, Tkinter, Word, Excel, PowerPoint, MySQL, MongoDB, Spring Boot, Node.js, React, Postman,

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.

Auto Corrector-AI [↗]   March 2025

- – 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* [↗]   *Feb 2025*
- – *Hotel Booking Management System* [↗]   *January 2025*
- – *Student Management System :* [↗]   *May 2024*

Certifications

- – *Generative AI in Learning and Development*   *Certificate:* [↗] *Feb 2024*
- – *Python for Beginners (University of Moratuwa)*   *Certificate:* [↗] *Feb 2024*
- – *Java Object-Oriented Programming*   *Certificate:* [↗] *Nov 2024*
- – *Learning Spring with Spring Boot*   *Certificate:* [↗] *Nov 2024*
- – *Angular Essential Training*   *Certificate:* [↗] *Nov 2024*
- – *React.js Essential Training*   *Certificate:* [↗] *Nov 2024*

Achievements

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

Extra-curriculars

Informatics Institute of Technology

- – *Member of the IEEE Community at IIT*   *2024 - Present*

Sri Bodhiraja College

- – *prefect*   *2017*
- – *Member of Maths and Science Society*   *2017*

References

Mr. N G Chandana Srilal   **Mr. G.A. Pubudu Janith**

Senior Software Engineer   Assistant Lecturer

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