Sahan Dilip Gunathunga

Computer Science & Engineering Undergraduate

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○ github.com/SahanDilip   🔗 Portfolio   ◗◖ Medium

Profile

Motivated Computer Science and Engineering undergraduate with a strong interest in solving complex problems through software engineering disciplines. Experienced in full-stack development, Passionate about designing efficient and scalable software solutions. A dedicated learner and collaborative team member and committed to creating high-quality, user-centered solutions that address real-world challenges

Education

2021 – present	**B.Sc. Engineering (Hons),** University of Moratuwa Specialized in Computer Science and Engineering
2017 – 2020	**GCE Advanced Level | 2020,** ST. Thomas Boys' College Matara Passed with 3 A's | Z-score – 2.3472 | IR - 297
2012 – 2017	**GCE Ordinary Level | 2017,** ST. Thomas Boys' College Matara Passed with 9 A's

Professional Experience

2024/08 – Present University of Moratuwa	**Undergraduate Teaching Assistant,** Department of Computer Science & Engineering • Assisted in managing and evaluating student project submissions, ensuring accurate and fair grading. • Facilitated student learning by clarifying concepts, answering queries, and offering insights to strengthen their practical programming skills. **Key Skills:** Visual Programming,Project Evaluation, Feedback & Guidance
2024/12 – 2025/05 Trace Expert City, Colombo 10.	**Trainee Software Engineer,** CodeGen International (Pvt) Ltd. • Developed an agent-based, LLM-powered system to streamline complex booking workflows and enhance user experience. • Integrated natural language capabilities for context-aware, multi-turn interactions, improving system intuitiveness and adaptability. • Collaborated in Agile-Scrum teams, contributing to sprint planning, daily stand-ups, and sprint reviews. • Applied prompt engineering and context-aware interaction design to real-world intelligent system solutions. **Technologies & Skills:** LLMs, NLP, Intelligent Systems, Agile Development

Projects

S.P.E.A.K: Enhancing Automatic Speech Recognition for Sinhala ☐
- As part of my university research project, I contributed to creating a large Sinhala–English code-mixed speech dataset featuring diverse accents, dialects, speaking styles, and noisy environments to address low-resource limitations in Sinhala ASR. I also helped develop an advanced ASR system fine-tuned for spontaneous Sinhala speech with code-switch handling, accurate real-time transcription, and enhanced output quality through post-processing and optional speaker diarization.
- **Tools:** Python, Whisper, FastAPI, GCP, React, Git

OpenCare Child Orphanage Management Platform - Full Stack Developer ☐
- Developed OpenCare, a secure web-based platform for child protection authorities to efficiently manage and oversee orphanages. The system ensures data privacy while providing comprehensive tools for orphanage administration, child profile management, case tracking, and adoption workflows. It enables role-based access control, seamless document management, and automated notifications, supporting smooth operations and compliance with child data protection standards.
- **Tech Stack:** React, Node.js, Express, PostgreSQL, Prisma ORM

UniMate Community Events & Lost/Found - Full Stack Developer ⧉
- A cross-platform mobile application for campus and community engagement, enabling users to discover and share events and manage lost and found items. It supports real-time updates, media uploads, and secure sessions via Supabase, providing a seamless user experience. Users can browse, create, and interact with events and posts, filter content with full-text search, and navigate locations using integrated maps and directions.
- **Tech Stack:** React Native, TypeScript, Supabase (Postgres, Auth, Storage, Realtime), react-native-maps

Book the Doc (Smart Health Care System) ⧉
- Developed Book the Doc, a web-based healthcare platform that digitizes appointment booking, e-channeling, and diagnostic scheduling for small medical centers. The system centralizes patient interactions, enabling online doctor search, appointment management, and real-time scheduling. It improves operational efficiency while providing a secure and user-friendly experience for patients and healthcare staff.
- **Tech Stack:** MongoDB, Express.js, Firebase, Next.js, Tailwind CSS

E-Commerce Platform - Full Stack Developer (Personal Project) ⧉
- As a personal project, I am developing an e-commerce platform where customers can place orders for food items based on their preferences. The platform includes an admin panel for managing sales in the store according to customer needs.
- **Tech Stack:** React, Node.js, Express, MongoDB

Human Resource Management system ⧉
- Human Resources management system with primary focus on database modeling and management, incorporating role-based access for Administrators, Managers, and Employees to handle employee data and workflows efficiently.
- **Teck Stack**: React, MySQL, Node.js, Express

Extracurricular Activities

2024/03 – Present	**Chairperson,** Industry Applications Society, IEEE Student Branch University of Moratuwa
2025/07 – Present	**Member IT Panel,** Leo District 306 D2
2023/06 – 2024/05	**Cheif Activity Coordinator,** Leo Club Of University of Moratuwa
2022/06 – 2023/05	**Activity Coordinator,** Leo Club of University of Moratuwa
2022/06 – 2023/05	**Project Chairperson,** Mahesh Abeywickrama Memorial Debate Competition & Pera Man Thanuma Leo Club of University of Moratuwa
2024/01 – 2024/08	**Project Chairperson,** MoraUXplore 2.0 IEEE Student Branch University of Moratuwa
2023/09 – 2024/01	**Lead SLIOT 2023,** Department of Computer Science & Engineering, University of Moratuwa

Skills

Programming Languages: Python, Java, C, C++, JavaScript

Web Development: HTML, CSS, React, Next.js, Express.js, NestJS, Spring Boot, FastAPI

Mobile App Development: React Native

Database Systems: PostgreSQL, MySQL, MongoDB

Tools: Git, Figma, Postman

Cloud Computing/DevOps: Firebase, Supabase, AWS, GCP, Docker, Kubenetes, Jenkins, Ansible, GitHub Actions

Soft Skills & Other Interests

- Team Work
- Communication
- Leadership
- Public Speaking
- Event Organizing
- Photography

References

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