SAHAN NIMANTHA

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Introduction

Computer Engineer from the **University of Peradeniya** specializing in **Software Engineering**, **Quality Engineering**, **Machine Learning**, and **Artificial Intelligence**. Experienced in full-stack development, testing, deployment, and AI-driven solutions. Strong problem-solving skills, adaptability, and collaborative mindset.

Education

University of Peradeniya   June 2021 – August 2025
BSc Eng Hons Specializing in Computer Engineering   Current GPA: **3.50/4.0**

St. Thomas' Boys College, Matara   January 2010 - August 2019
G.C.E. Advanced Level   **District Rank : 51**
G.C.E. Ordinary Level   **9As**

Experience

Neura Intelligence (Pvt) Ltd, Sri Lanka   *1 Year+ Experience*
Intern Software Engineer | Hybrid   June 2024 – August 2025

Worked on several platforms, contributing to **Full Stack Development**, **Quality Engineering tasks (testing)**, **deployment and maintenance**, as well as **project management and trading-related tasks**.

- *Automated Form Filling Tool (FFT) : COPNOTE*
  - Contributed to **front-end development** and resolved **UI issues**, enhancing overall user experience.
  - Optimized **AI prompt generation** for automated form filling, improving system efficiency and accuracy.
  - Performed comprehensive **manual testing** and managed **service deployment and maintenance** on **AWS**.

  Technologies and Techniques Used: ReactJS, NodeJS, Express, HTML, CSS, DocumentDB, MongoDB, OpenAI, Google Cloud Speech Api, GitHub

- *Automated Food Order Module (FOM) : FoodOrderAI*
  - Enhanced the **user interface** to improve usability, visual consistency, and overall user experience.
  - Integrated **OpenAI-based scripts** to intelligently compare user-entered orders with predefined company menus.
  - Managed **service deployment and maintenance** on **AWS** to ensure reliability and smooth operation.

  Technologies and Techniques Used: ReactJS, NodeJS, Express, HTML, CSS, DocumentDB, MongoDB, OpenAI, Google Cloud Speech Api, GitHub

- *Financial Information Platform (FIP) : FinApp*
  - Developed **tagging features** across both **frontend and backend** components and resolved **UI issues** to improve usability.
  - Managed **service deployment and maintenance** on **AWS**, ensuring system reliability and scalability.
  - Conducted comprehensive **testing activities**, including **Automated Testing**, **Manual Testing**, and **Performance Testing**.

  Technologies and Techniques Used: FastAPI, ReactJS, MongoDB, HTML, CSS, AWS Amplifier, DocumentDB, AWS Opensearch, GitHub, Pylint, Postman, Swagger

Undergraduate Teaching Assistant | Department of Computer Engineering   Feb 2023 – August 2025
- Computer Architecture, Networks, Web Application Design, Data Structures, and Algorithms

Selected Projects

Smart Waste Management System : GreenBin Technology | **Group** | Git   Nov 2023 - Aug 2024
- A System designed to enhance the efficiency of waste collection processes and it incorporates IoT technology to monitor smart bins.
- Designed and developed **frontend** of both **mobile** and **web** applications for waste tracking and collection optimization. Integrated IoT sensors, set up cloud services, and finalized hardware for smart bins.
- **Technology and Techniques Used:** ReactJS, NodeJS, Express, MongoDB, HTML, CSS, AWS Iot Core, PlatformIO(Arduino,C++), MQTT

FYP : RAG Pipeline for Generate Verilog Codes with Variations | **Group** | <u>Git</u>   Dec 2024 – August 2025

- Collaboration : **Synopsis, Sri Lanka** | Supervisors: Prof. Roshan Ragel, Dr. Isuru Nawinne, Dr.Damayanthi Herath
- Final Year Research Project.Developing a system to automate **Verilog** code variation generation using fine-tuned Large Language Models (**LLMs**) for hardware design verification.Implementing **PyVerilog-based, direct Verilog, and X-Form-based transformation approaches**, with implementing a **RAG Pipeline** and **Testing framework**.
- **Technology and Techniques Used:** Verilog, Python, PyVerilog, Verilator, VCS, VCS SpyGlass, Google BigQuery

Hospital Management System : MediCare | **Group** | <u>Git</u>   May 2023 - July 2023

- An user-friendly web application designed to improve patient healthcare and management.
- Developed frontend of a web-based system for managing hospital operations and patient records.Integrated frontend with backend using **MySQL** and **NodeJS.**
- **Technology and Techniques Used:** ReactJS, NodeJS, Express, MySQL, HTML, CSS

Baby Development Tracking System : Growing Up | **Group** | <u>Git</u>   May 2023 - July 2023

- Built mobile app to track baby development with features like vaccinations, growth, medications, AI chatbot (Nanny).
- Devoloped **frontend** Features.Developed **backend** and database components using **Firebase**.
- **Technology and Techniques Used:** Java, Android Studio, Firebase

Subclinical Mastitis Prediction Tool : SCMP GUI| **Group** | <u>Git</u>   Aug 2023 - Sep 2023

- Collaboration : **Faculty of Veterinary Medicine and Animal Science** | Supervisor: Dr.Damayanthi Herath
- An user-friendly graphical user interface (GUI) that integrates a prediction model for subclinical mastitis in dairy cows.
- Developed GUI for mastitis prediction with batch dataset import, preview, and processing features.
- **Technology and Techniques Used:** Django, Python, CSS

Familiar Technical Skills

Technical Skills: Java, Python, JavaScript, ReactJS, NodeJS, Express, Django, FastAPI, MongoDB, MySQL, Google BigQuery, Swagger, Postman, Selenium, JMeter, Git, AWS (Amplify, EC2, OpenSearch, IoT Core, DocumentDB), HTML, CSS, Bootstrap, Firebase, OpenAI, JIRA, Confluence, Slack, Google Meets

Selected Certificates

JavaScript, ReactJS, NodeJS | Udemy	2024 - 2025
Supervised Machine Learning, Generative AI for Everyone, AI for Everyone | Deeplearning.AI	2023 - 2025

Extra-Curricular Activities

Chess Team Member | St. Thomas' Boys College	2013 - 2017
Field Representative | Computer Engineering Department and ACES	2024 - 2025
Videographer, Social Media Director | Vibhava Social, UOP	2023 - 2025
Technical Team Member | Hackers' Club, UOP	2022 - 2024
Member | Robotics Society, UOP	2023 - 2025
IGV Team Member | AIESEC in Kandy, Sri Lanka	2021 - 2023

Achievements

Fourth Place – ACES Hackathon | 04 (Out of 150+ participants)	2023
Participation – SLIIT DevQuest | 18 (Out of 300+ participants)	2023
Participation – ACES Coders v10.0 | 30 (Out of 500+ participants)	2024
Participation – ACES Coders v9.0 | 34 (Out of 500+ participants)	2022

References

Dr. Asitha Bandaranayake

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Prof. Roshan G. Ragel

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