Naveena Wimalarathne

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Profile

Final-year undergraduate pursuing a BSc (Hons) in Computer Science, with a solid foundation in Computer Science and majors in Statistics and Mathematics in the first two years. Interested in software engineering and Research & Development, with hands-on experience in object-oriented programming, algorithms, and real-world projects. Skilled in full-stack development, problem-solving, and teamwork. Seeking an internship to apply academic knowledge, gain practical experience, and contribute to innovative solutions.

Technical Skills

- Python, Java, C, R

- HTML, CSS, JavaScript, Bootstrap, React Figma, MySQL, Thymeleaf, Spring Boot, Flask, Neo4j, MongoDB

- Jupyter Notebook, VS Code, IntelliJ, Netbeans, Eclipse, GNU Octave, MATLAB, Minitab, SPSS

- Git, GitHub, GitLab, Jenkins, Docker, Postman, XAMPP, SonarQube, Selenium

- OOP, Machine Learning, Data Structures & Algorithms

Education

BSc (Hons) in Computer Science
2022 – Present
University of Sri Jayewardenepura

Current GPA: CS - 3.45 | Statistics - 3.24 | Overall - 3.31

Higher National Diploma in Information Technology
2024
University of Colombo School of Computing

GCE Advanced Level Examination
2020
Visakha Vidyalaya, Colombo 5

Combined Maths - A | Chemistry - B | Physics - C

Z Score - 1.36

GCE Ordinary Level Examination
2017
Anula Vidyalaya, Nugegoda

9 A passes

Projects

LLM based Intelligent Assistant for Navigating Procurement Guidelines in Sri Lanka
Final Year Research – Ongoing

Currently developing an LLM-based chatbot using a Retrieval-Augmented Generation (RAG) architecture, with document chunking and vector database integration, to assist users in navigating Sri Lanka's government procurement guidelines. The project proposal has been completed and approved.

NEXU - News Verification Robot using Crowdsourcing
Python | Reddit API | PRAW | Groq | Raspberry Pi | Arduino

Developed a real-time news verification system as part of the Human-Robotics Interaction Project, which scrapes Reddit data and analyzes content credibility using crowdsourced signals and sentiment analysis. Integrated Raspberry Pi and Arduino to enable physical interaction and movement based on the system's verification outcomes.

University Hall Booking System
Java | Spring Boot | Thymeleaf | HTML | CSS | MySQL | Docker | FreeSQL

Developed a full-stack web application for hall reservations at the University of Sri Jayewardenepura. Features include user login, real-time hall availability, booking submission, admin approval panel, and a user dashboard. Deployed using Docker with a cloud-hosted MySQL database on FreeSQL.

Solving the Video Storing Problem with Genetic Algorithm
Python | Genetic Algorithms | Matplotlib | NumPy

Solved the Video Storing Problem using a Genetic Algorithm implemented in Python. Implemented the algorithm on Google Colab and ran extensive experiments tweaking population size, crossover/mutation methods, and hyperparameters.

Medicine Recommendation System
Python | Jupyter Notebook | HTML | Pandas | Scikit-learn | Flask

Developed a symptom-based medicine recommendation engine with a responsive frontend using Flask. The system suggests appropriate medications based on user-input symptoms.

Hand Gesture Game for Kids
Python | OpenCV

Developed an interactive game controlled by real-time hand gestures using Python and OpenCV. The system tracks finger movements to enable touchless gameplay, enhancing user interaction and demonstrating gesture-based controls in gaming.

Glow Hatty - Smart Lamp
Arduino IDE | Edge Impulse

Designed and built a smart lamp that uses machine learning to detect objects (books vs. phones) and automatically adjusts lighting based on user activity.

COVID-19 Country Report: Germany
R | ggplot2 | dplyr | RStudio

Analyzed COVID-19 trends in Germany from 2020 to 2023, including cases, recoveries, and deaths.

Hall Allocation System
Java | OOP | JFrame | MySQL

Developed a GUI-based hall reservation system using Java Swing and object-oriented programming principles. Integrated with a MySQL database for persistent data management. Key features include booking, updating, and canceling reservations, real-time input validation, and a modular, reusable code structure.

To - Do List Manager
Java | Data Structures and Algorithm

Console-based task manager supporting add, delete, and sorting functions using data structures and algorithms concepts.

Data Pal - Mobile Data Recommender
Figma

Built a prototype web app that suggests cost-effective mobile data packages for Sri Lankan users. Designed the UI in Figma for IDEALIZE 2023 and selected for two rounds.

Work Experience

DFCC Bank PLC Mar 2021 – Jun 2021
Trainee Banking Assistant

Dchem Learning Centre Nov 2021 – Jan 2023
Teacher Assistant (IT & Administration)

Referees

Snr. Prof. R G N Meegama
Senior Professor
Department of Computer Science
University of Sri Jayewardenepura
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Prof. Ravindra De Silva
Professor
Department of Computer Science
University of Sri Jayewardenepura
+94 77 746 4000
ravi@sjp.ac.lk

Extra Curricular Activities

- General Secretary of the Computer Science Association 2025/2026
- Assistant Secretary of the Computer Science Association 2024/2025
- Co-Chief Organizer of the Algorhythm 2024 - Department Night
- First Year Committee Member of the Society of Computer Science 2022/2023
- Member of the Rotaract Club of University of Sri Jayewardenepura 2022/2023
- Committee Member of the Leo Club of Kottawa Central Golden City 2021/2022
- Committee Member of the Drug Prevention Club of Visakha Vidyalaya 2019/2020
- Junior Prefect (2016/2017)
- Team Member of the School Table Tennis Team (Under 15/17)