

Shaveen Udayanga

Sri Lanka

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EDUCATION

University of Sri Jayewardenepura

BSc (Hons) in Computer Science, Reading, 3rd year

- GPA: 3.01/4.00
- Minors: Mathematics, Physics

Nugegoda

Jun 2023 - Jun 2027

Nalanda College

GCE Advanced Level (2021)

- Mathematics: C | Physics: A | Chemistry: C | English: A

Colombo 10

2012 - 2020

TECHNICAL SKILLS

- Languages:** C, Java, Python, MySQL, R
- ML Frameworks & Libraries:** TensorFlow, Keras, Scikit-learn, Hugging Face
- Cloud & DevOps:** CI/CD (GitHub Actions), Docker, VPS/Shared Hosting, Linux (WSL)
- Web & Tools:** FastAPI, React, Git, VSCode, Jupyter Notebook
- Key Competencies:** Language-Agnostic Development, Rapid Prototyping, Code Comprehension, Problem-Solving

PROJECTS

HCI ▪ IoT ▪ Circuit Design ▪ Computer Vision ▪ GenAI

Lumina: Intent-Aware Robotic Lamp

Dec 2025 - Jan 2026

- Engineered an interactive robotic lamp for the **Human Computer Interaction (HCI)** module, applying **HCI principles** to design natural multimodal interactions using hand tracking and **Google's Gemini 2.5 Flash Native Audio API**.
- Designed and soldered a **custom motherboard on a dot board** to integrate the ESP32, power management, and peripherals, ensuring a compact hardware assembly.
- Developed a distributed system architecture where **Python (MediaPipe)** handles AI inference and communicates via **UDP** with the embedded hardware.
- GitHub:** <https://github.com/shaveenudayanga/lumina>

FastAPI ▪ MySQL ▪ Azure VPS

Lamitie 2025: Junior Batch Social Event System

Jan 2026

- Developed a high-performance backend using **FastAPI** and **Async SQLAlchemy** to handle student registrations and event logistics.
- Automating invitations via email workflows with QR codes and implemented a scanning API for real-time attendance tracking.
- Deployed the full stack to an **Azure VPS** with self-signed SSL, connected to a remote **Hostinger MySQL** database, and automated deployment via **GitHub Actions** over SSH.
- GitHub:** <https://github.com/shaveenudayanga/lamitie-25>

Spring Boot ▪ Microservices ▪ PostgreSQL

Customizable Document Tracking System

Aug 2025 - Nov 2025

- Architected a dynamic workflow engine (Service Oriented Computing Module) to digitize bureaucratic processes, enabling custom route mapping and real-time document tracking.
- Built a robust microservices backend using **Spring Boot** and **PostgreSQL**, implementing end-to-end encryption, role-based access control (RBAC), and audit trails.
- Designed an API-first architecture supporting mobile QR verification and integrated **Docker** CI/CD pipelines for containerized deployment.
- GitHub:** <https://github.com/shaveenudayanga/Customizable-Document-Tracking-System>

The Wheels in Motion

- Built a data analysis pipeline using **Pandas/Seaborn** to extract actionable insights from public vehicle datasets.
- Implemented **Zero-Shot Classification** on Kia customer reviews utilizing Hugging Face's *facebook/bart-large-mnli* model.
- Deployed a responsive dashboard with **Plotly Dash**, featuring dynamic filtering and real-time sentiment visualization.
- **GitHub:** <https://github.com/shaveenudayanga/the-wheels-in-motion>

Explore more projects on my GitHub: github.com/shaveenudayanga

LEADERSHIP & VOLUNTEER EXPERIENCE

IEEE CS Student Branch Chapter, USJ

Head of Logistics Committee

Jan 2025 - Jan 2026

- Orchestrated logistics for 'Beauty of Cloud', a collaborative workshop with AWS Sri Lanka, training 60+ undergraduates.

Startup Hub, USJ

Vice President of Tech & Innovation

Oct 2024 - Oct 2025

- Spearheaded the strategic planning and execution of a major university innovation competition.

SEDS J'pura

Rocketry Divisional Manager

Sep 2023 - Sep 2024

- Developed the technical framework for the annual rocket modeling competition and organized practical workshops.

CERTIFICATIONS

Coursera (DeepLearning.AI & Stanford)

Machine Learning Specialization

Completed

Authored by Andrew Ng. Covers Supervised/Unsupervised Learning and Advanced Algorithms. (ID: G15K7MDNT030)

edX (MITx)

Introduction to Aerospace Engineering

Completed

Astronautics and Human Spaceflight (16.00x). (ID: 74b4f126593f4b6eb808580da0acc0a5)

ACHIEVEMENTS

- **2025 | Selected for BSc (Hons) in Computer Science:** Ranked in the top 18 of 120 students, forming the exclusive cohort that met the 3.0 CS GPA cutoff required for selection.

RELEVANT COURSEWORK

- **Computer Science:** Data Structures & Algorithms, Machine Learning, Artificial Intelligence, Swarm Intelligence, Computer Security, Operating Systems, DBMS, Software Quality Assurance, Computer Graphics, Net Centric Computing, Service Oriented Computing
- **Math & Physics:** Calculus, Differential Equations, Logic & Set Theory, Electronics (Analog/Digital), Statistical Physics

REFERENCES

Prof. P. Ravindra S. De Silva

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