# Shaveen Udayanga

Sri Lanka

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## EDUCATION

**University of Sri Jayewardenepura**     **Nugegoda**

*BSc (Hons) in Computer Science, Reading, 3rd year*     *Jun 2023 - Jun 2027*
- **GPA:** 3.01/4.00
- **Minors:** Mathematics, Physics

**Nalanda College**     **Colombo 10**

*GCE Advanced Level (2021)*     *2012 - 2020*
- Mathematics: C   |   Physics: A   |   Chemistry: C   |   English: A

## 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

*IoT ▪ Circuit Design ▪ Computer Vision ▪ GenAI*

**Lumina: Intent-Aware Robotic Lamp**     *Dec 2025 - Jan 2026*
- Engineered an interactive robotic lamp featuring real-time hand tracking and natural voice conversation using **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* *Dec 2024*

- 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: GI5K7MDNT03O)

**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

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