

Kalhara Jayathissa

Computer Science and Engineering Undergraduate

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Professional Summary

Computer Science and Engineering undergraduate at the University of Moratuwa with hands-on experience developing production-style full-stack, backend, microservices, and embedded systems applications. Built platforms serving 350+ and 600+ users using React, Next.js, Express.js, PostgreSQL, Supabase, Docker, and AWS. Experienced in REST API development, relational database design, CI/CD, Linux, embedded firmware, real-time systems, and collaborative Git workflows.

Education

B.Sc. (Honours) in Computer Science and Engineering

University of Moratuwa

2023 – Present

Moratuwa, Sri Lanka

- **Academic Standing:** Expected Graduation: 2028 | **CGPA: 3.51** / 4.00
- **Honors:** Dean's List (Semester 1) | **GPA: 3.85** / 4.00

G.C.E. Advanced Level

Physical Science Stream

2022

Sri Lanka

- **Z-Score:** 2.14

G.C.E. Ordinary Level: 9 A Grades

2019

Selected Projects

RiseUpMora Web Application | 🐙 Code

2026

Next.js, Serverless Functions, PostgreSQL

- Engineered a scalable 3-tier enterprise platform orchestrating an end-to-end mock interview life cycle for 600+ undergraduates and 19 premier companies.
- Architected a custom Role-Based Access Control (RBAC) edge proxy and Next Auth JWT session management to securely serve 5 distinct user roles with tailored dashboards.
- Implemented a serverless concurrency engine for time slot capacities and a custom document proxy to secure 450+ candidate CVs from direct URL exposure.
- 🌐 Live: www.riseupmora.lk

DevPulse – Developer Analytics Platform | 🐙 Code

2026 ongoing

Next.js, Spring Boot, PostgreSQL, Redis, Docker, AWS

- Developing a microservices-based platform for developer productivity, repository analytics, and code-quality insights.
- Building independent REST services using Spring Boot, PostgreSQL, Redis, and RabbitMQ for persistence, caching, and asynchronous communication.
- Containerizing services with Docker and deploying on AWS using a single database for each service architecture and collaborative Git workflows.

Prypiatos - Energy Management System (EMS) | 🐙 Code

2026

ESP32, C++, FreeRTOS, MQTT, Docker, GitHub Actions

- Engineered real-time ESP32 firmware using FreeRTOS mutexes and debounce logic to detect power anomalies and ensure thread-safe state management.
- Implemented MQTT-based remote configuration and buffered event reporting, leading end-to-end integration testing across the edge-node workflow.

KESS Inspire – A/L Examination Management System | 🐙 FrontEnd 🐙 BackEnd

Oct 2025

React, Express.js, Supabase

- Developed a production-style examination platform serving 350+ users across student, invigilator, examiner, and administrator workflows.
- Implemented answer-script submission, invigilator assignment, NIC-based attendance and on-site registration using Supabase Authentication, Database, and File Storage.
- 🌐 Live: inspire.morakess.lk

Next.js, Express.js, PostgreSQL

- Built a full-stack learning management platform serving 450+ users with JWT/bcrypt authentication, strict role-based access control, REST APIs, academic tracking, and leaderboards.
- Developed a responsive Tailwind CSS interface and backend services for bulk data entry and academic management.
-  Live: www.siyowin.lk

Bright Buy – E-Commerce Website*Express.js, React, MySQL*

- Developed a full-stack e-commerce application with relational database design and backend services as part of a Database Systems project.
- Collaborated in a five-member team to integrate frontend and backend components.

Cross-Platform Encryption Tool | Article

Personal project

C++, Linux, Windows, Android

- Built a C++ encryption application supporting Linux, Windows and Android, and documented the implementation in a technical article.

Nanoprocessor Design

2025

VHDL, Assembly

- Designed and integrated core processor components including the program counter, program ROM, multiplexers, and adders, collaborating in a four-member team.

Technical Skills

Programming Languages: Python, C++, JAVA, JavaScript, SQL, HTML, CSS**Frameworks and Web Technologies:** React, Next.js, Express.js, Spring Boot, Tailwind CSS, REST APIs**Databases and Messaging:** PostgreSQL, MySQL, MongoDB, Supabase, Apache Kafka, RabbitMQ**Cloud and DevOps:** AWS, Docker, CI/CD, Git, GitHub, GitHub Actions**Tools and Concepts:** VS Code, Codex, MySQL Workbench, JWT, Relational Schema Design, Agile/Scrum...**Leadership and Activities**

Web Development Committee Lead

2026

*RiseUpMora 2026***Technical and Selection Committee**

Oct 2025 – May 2026

*IESL RoboGames***Organizing Committee Member**

2026

*CSE Career Fair***Company Coordination Team Member**

2026

*CSE Hit the Grounds***Achievements**

- **1st Runner-Up, Cypher 3.0 Inter-University Hackathon**, IEEE Student Branch KDU, October 2025.
- **Semi-Finalist, SLIoT Challenge 2025**; led Team AmpArts in the IoT competition organized by the Department of Computer Science and Engineering, University of Moratuwa.

Certifications

- AWS Academy Graduate – Microservices and CI/CD Pipeline Builder, Amazon Web Services, March 2026.
- AWS Academy Graduate – Cloud Foundations, Amazon Web Services, February 2026.  Credential

References

Prof. D. A. Meedeniya

Professor, Department of Computer Science and Engineering

University of Moratuwa

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