

SENURI MALLIKARACHCHI

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PROFILE

Motivated individual with hands-on experience in full stack development and a growing interest in deep learning. Passionate about developing efficient, innovative software solutions that meet real-world needs and deliver meaningful impact. Eager to contribute to a collaborative team while continuously learning and evolving as a software developer.

EDUCATION

University of Moratuwa 2022 - Present

BSc. Eng (Hons), Computer Science & Engineering

CGPA - 3.9 / 4.0, Dean's List in Semesters 1, 2, 3, 5, 6 (4.0 SGPA in Semester 6)

Visakha Vidyalaya, Colombo 5 2018 - 2020

G.C.E. A/L Examination 2020: 3A Passes (Physical Science Stream), Z Score - 2.5

Mahinda Rajapaksha College, Homagama 2012 - 2017

G.C.E. O/L Examination 2017: 9A Passes (Including English Literature), Island Rank - 2

EXPERIENCE

Software Engineer Intern, WSO2 Dec 2024 - May 2025

- **Workflow Support for WSO2 Identity Server:** Designed and implemented an end-to-end workflow support system in WSO2 Identity Server, replacing the built-in BPS engine with a simplified solution to handle long-running user operation workflows. The project included configuring workflows, managing human task approvals, and enhancing overall workflow management efficiency. Technologies used: Java, Maven, React.js.
- **HubSpot Marketing Subscription Connector:** Built an open-source Ballerina connector for HubSpot Marketing Subscriptions to manage subscription preferences via REST endpoints. 📄

Teaching Assistant, University of Moratuwa Jul 2025 - Nov 2025

- Assisted and mentored student group projects for Advanced Software Engineering Module.

PROJECTS

SoundEdge - Efficient Deep Learning for Environmental Sound Classification Jun 2025 - Present

Research Project: Ongoing

- Designing and developing a high-performance deep learning model for environmental sound classification using lightweight architectures.
- Employing audio augmentation, adversarial training, and compression to improve robustness and edge deployability.
- Current experiments yield over 88% state-of-the-art accuracy against benchmark datasets.

Context-aware Mobile Application for Automated Sound Profile Management Oct 2025 - Dec 2025

Group Project 🗣️ / Technologies: Kotlin, Android Studio

- The app dynamically switches the phone's audio profile based on scheduled events, location, and device orientation.
- Contributed by designing the user interfaces and implementing the event-based audio profile switching functionality.

WeVote - Cryptographically Secure Online Voting System Oct 2025 - Nov 2025

Group Project 🗣️ / Technologies: Next.js, React Native, FastAPI, MySQL

- Developed a secure and verifiable online voting system, including voter registration, vote encryption, ballot casting, and results tallying processes.
- Included advanced security protocols such as Public Key Infrastructure, Blind signatures, Merkle tree receipts, and threshold cryptography.
- Contributed by implementing the ballot casting functionality.

Skincare E-commerce Platform


May 2025 - Jul 2025

Individual Project  / Technologies: React.js, Node.js, Express, Spring Boot, PostgreSQL, Maven

- Developed a full-stack, microservices-based skincare e-commerce platform with scalable backend services.
- Built backend microservices, with a BFF layer for secure, efficient frontend-backend integration. Implemented key functionalities including product catalog, cart operations, and user profile management.

Hotel Reservation Application

May 2024 - Jul 2024

Individual Project  / Technologies: React.js, Node.js, Express, MongoDB

- Developed a web application for hotel reserving, enabling users to search, filter and reserve hotel rooms based on key criteria.

TECHNICAL SKILLS



Programming Languages	Java, JavaScript/Typescript, Python, C++
Frameworks	React.js, Node.js, Spring Boot, PyTorch
Databases	MySQL, SQLite, PostgreSQL, MongoDB
Tools	Git, Linux, Docker
Technical Fields	Full Stack Development, Microservices, Machine Learning, Identity and Access Management

PUBLICATIONS

Manuscripts

- Environmental Sound Classification Using Advanced Pooling and Hybrid Convolution-KAN Architecture, IEEE Access, [Published], 2025.

Articles

- **Password Cracking with John the Ripper:** Authored a comprehensive guide on techniques and tools used for password cracking with a detailed focus on John the Ripper.  Aug 2024
- **HubSpot Marketing Subscription Management with Ballerina:** Published a step-by-step guide on how to use the HubSpot Marketing Subscription Connector.  Jan 2025

ACHIEVEMENTS

- **1st Runner up:** Cypher 2.0 - Capture the Flag Competition Mar 2024
- **Finalist:** Rootcode Tech Triathlon Sep 2024
- **Semi Finalist:** CyberZee Quiz Competition Aug 2024

CERTIFICATIONS

- WSO2 Certified Identity Server Practitioner - V7 2025
- Getting Started with Docker by Simplilearn 2025
- Java, C and C++ by Sololearn 2023

EXTRACURRICULAR ACTIVITIES

- **Enigma Competition 2024:** Logistic and Infrastructure Committee Member
- **SLIoT Challenge 2023:** Program Committee Member
- **Rotaract Club, University of Moratuwa:** Volunteer (Hand-in-Hand Project, Voice Donation Camp)

REFERENCES

Dr. Dulani Meedeniya, Senior Lecturer Department of Computer Science & Engineering, University of Moratuwa +94 71 393 5801 dulani@cse.mrt.ac.lk	Mr. Ashen Weerathunge, Technical Lead WSO2 Lanka (PVT) Ltd 105 Baudhaloka Mawatha, Colombo 4 +94 71 604 2995 ashen@wso2.com
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