

# SENURI MALLIKARACHCHI

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## PROFILE

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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

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<b>University of Moratuwa</b> <i>BSc. Eng (Hons), Computer Science &amp; Engineering</i> CGPA - 3.9 / 4.0, Dean's List in Semesters 1, 2, 3, 5, 6 (4.0 SGPA in Semester 6)	2022 - Present
<b>Visakha Vidyalaya, Colombo 5</b> <i>G.C.E. A/L Examination 2020: 3A Passes (Physical Science Stream), Z Score - 2.5</i>	2018 - 2020
<b>Mahinda Rajapaksha College, Homagama</b> <i>G.C.E. O/L Examination 2017: 9A Passes (Including English Literature), Island Rank - 2</i>	2012 - 2017

## EXPERIENCE

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<b>Software Engineer Intern, WSO2</b>	Dec 2024 - May 2025
· <b>Workflow Support for WSO2 Identity Server:</b> 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.	
· <b>HubSpot Marketing Subscription Connector:</b> Built an open-source Ballerina connector for HubSpot Marketing Subscriptions to manage subscription preferences via REST endpoints. 	

<b>Teaching Assistant, University of Moratuwa</b>	Jul 2025 - Nov 2025
· Assisted and mentored student group projects for Advanced Software Engineering Module.	

## PROJECTS

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<b>SoundEdge - Efficient Deep Learning for Environmental Sound Classification</b> <i>Research Project: Ongoing</i>	Jun 2025 - Present
· 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.	

<b>Context-aware Mobile Application for Automated Sound Profile Management</b> <i>Group Project    Technologies: Kotlin, Android Studio</i>	Oct 2025 - Dec 2025
· 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.	

<b>WeVote - Cryptographically Secure Online Voting System</b> <i>Group Project    Technologies: Next.js, React Native, FastAPI, MySQL</i>	Oct 2025 - Nov 2025
· 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

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### 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

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### 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

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- **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

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

## EXTRACURRICULAR ACTIVITIES

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- **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

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### Dr. Dulani Meedeniya,

Senior Lecturer

Department of Computer Science & Engineering,

University of Moratuwa

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### Mr. Ashen Weerathunge,

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