

# Tharindu Ruwanpathirana

## Software Engineer | Full Stack development

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### Education

<b>University of Moratuwa</b> BSc (Hons) in Information Technology	Moratuwa, Sri Lanka Jun 2021 – Present
<b>H/ Nihiluwa M.V.</b> Secondary School	Beliatta, Sri Lanka Jan 2011 – Aug 2019
<b>G.C.E A/L Examination:</b> 2A Passes 1B Pass (Physical Science Stream), District Rank - 27	

### Experience

#### Software Engineer Intern

Digital Transformation Team, WSO2 LLC Apr 2024 – Oct 2024

- Mainly focused on Developing and maintaining WSO2 LLC 's Finance MIS application
- Collaborated with the Choreo team to put the application to Production
- Reduced server costs through efficient coding practices and optimizing database queries on a MySQL and Ballerina powered backend
- Enhance the previous UI with React Js & Material UI
- Converted all the GraphQL services as REST services due to a Performance issue
- Also involved in researching and writing test cases
- Technology Stack: **React js, Ballerina, MySQL, Redux, MUI, Choreo, Asgardio, Github, REST, GraphQL**

#### Web Development Team Lead

IEEE Student Branch, University of Moratuwa Jun 2024 – Oct 2024

- Worked as the Web Development Team Lead and a Full Stack Developer
- Developed the official website for the event 'Mora UXplore 1.0', which included features such as Team Registrations, a Team Dashboard, an Admin Dashboard, a Leaderboard, and a real-time updated Landing Page
- Technology Stack: **React js, Node js, Express js, MongoDB, JWT, Trello, Github, Docker**

### Selected Projects

**Automated Tea Quality Assessment System** | Final Year Project Oct 2024 – Ongoing

- This research aims to develop an automated tea quality assessment system using image processing and machine learning techniques for accurate, consistent, and scalable evaluation of tea powder, liquid, and infusion properties.
- Technologies Used: OpenCV, Python, Django, React, Git, Docker

**MIS Dashboard – Finance Application** | Internship Project at WSO2

Apr 2024 – Oct 2024

- Developed and maintained Finance MIS application for WSO2 LLC.
- Deployed the application to production with the Choreo team.
- Enhanced the UI with React.js, Redux and Material UI for a better user experience.
- Reduced server costs by optimizing database queries and improving backend performance using MySQL and Ballerina.
- Migrated all GraphQL services to REST APIs to resolve performance issues.
- Technologies Used: React.js, Ballerina, MySQL, Redux, MUI, Choreo, Asgardio, GitHub, REST, GraphQL

**Mora UX Plore1.0 Official Web App** | Group Project

Dec 2023 – March 2024

- had the opportunity to serve as the Web Development Team Leader for the IEEE Student Branch of the University of Moratuwa's Mora UXplore1.0 event. Us develop the official website for the event, which included features such as Team Registrations, a Team Dashboard, an Admin Dashboard, a Leaderboard, and a real-time updated Landing Page.
- Technologies Used: MongoDB, Express.js, React.js, Node.js (MERN Stack), AWS EC2, AWS S3, Docker, Git

## Super Market Management System (K-Mart) | Individual Project

June 2023 – Nov 2023

- Developed a Spring Boot application with modules for user management, product handling, cart management, order processing, and role-based access control.
- Implemented JWT authentication for secure user login and authorization.
- Designed RESTful APIs with controller and DAO layers for efficient data handling and business logic separation.
- Technologies Used: Spring Boot, Spring Security (JWT), Spring Data JPA, MySQL, Git, Docker

## Twitter Clone | Individual Project

Jan 2025 – Feb 2025

- A Developed a Twitter Clone full-stack web application with features including user authentication, post creation, commenting, liking, and profile management.
- Integrated React Query for efficient data fetching, caching, and state management.
- Technologies Used: React.js, MongoDB, Node.js, Express.js, Tailwind CSS, React Query, AWS S3, Git, Docker

## E-Commerce Application (Microservices Architecture) | Individual Project

Jan 2025 – Feb 2025

- Developed a complete event-driven microservices architecture using Spring Boot and Apache Kafka, focusing on scalable, reliable inter-service communication through Kafka events.
- Implemented Kafka producers and consumers in Spring Boot for asynchronous data flow, ensuring high availability and decoupled microservices.
- Technologies Used: Spring Boot, Apache Kafka, Spring Kafka, Docker, JUnit, Maven, Git

## Technical Skills

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**Programming:** JavaScript, Java, C, Ballerina, Python

**Frameworks and Libraries:** Node.js, Spring boot, React js, Express js, Next js

**Other Technologies:** HTML, CSS, MUI, Tailwind CSS, Redux, React Query, Vite, Kafka

**Database Systems:** MySQL, MSSQL, MongoDB

**Machine Learning:** OpenCV, NumPy, Pandas

**CI/CD & Cloud Tools:** Git, Docker, AWS, Choreo

## Courses and Certifications

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**AWS Cloud Essentials** on Coursera by AWS

**Developing frontend apps with React** on Coursera by Meta

**Tailwind CSS: A to Z** on Udemy

**Python For Beginners** at University of Moratuwa

## Related Academic Studies

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Software Engineering Methods

Object Oriented Programming

Data Structures & Algorithms

Operating Systems

Object Oriented Analysis & Design

Database Management Systems

Digital Image Processing

Machine Learning

## References

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**Dr. Lochandaka Ranathunga**

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