



## About Me

A motivated and adaptable software engineer with strong problem-solving, leadership, and collaboration skills, passionate about software engineering, AI, and machine learning, and actively engaged in volunteering and leadership initiatives. Hands-on experience as an Associate Software Engineer and Intern in agile environments, contributing to end-to-end solutions across multiple technical domains. Skilled at quickly adapting to new fields and delivering reliable, high-impact solutions. Seeking a software engineering role to apply expertise and drive value across projects.



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<https://github.com/ChalanaGayan>

## General Skills

- Teamwork
- Leadership
- Self Confidence
- Communication Skills
- Self Motivation

## Technical Fields

- Full-Stack Software Engineering
- Artificial Intelligence
- Machine Learning
- IoT
- Mobile Application Development

# Chalana Dhanawardhana

## Undergraduate

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Portfolio Website: <https://chalanagayan.me>

## WORK EXPERIENCE

### Surecore (Pvt) Ltd

2025 Jul - Current

#### Associate Software Engineer

- Developed enterprise insurance solutions (payments, finance, underwriting) using Angular, Spring Boot, microservices, PostgreSQL/Oracle, and Kubernetes across the full development lifecycle.
- Contributed to R&D initiatives, including multi-tenant system design and early-stage AI/multi-agent automation experiments for future product capabilities.

### WSO2 LLC

2025 Jan - 2025 Jul

#### Software Engineering Intern

- Worked on the WSO2 Certification Portal using React TS, Ballerina, REST, GraphQL, MySQL, and Salesforce across UI, backend, and integration layers.
- Supported product download tracking with Salesforce to identify and engage organizational users without active subscriptions.
- Collaborated as a team member, contributing to multiple internal projects and feature enhancements.
- Gained hands-on experience with WSO2 products (Ballerina, Asgardeo, Choreo) and full software development lifecycle.

## EDUCATION

### University of Moratuwa

2022 - Present

BSc Eng Hons, Computer Science and Engineering

- CGPA: 3.56 (Up to 6 Semesters)

### Esoft Metro Campus

2015

Pearson Assured Diploma in Information Tecnology

### R/ Sivali Central College

2020

GCE Advanced Level Examination - Physical Science Stream

- Z-score: 2.4768
- Island Rank: 183
- District Rank: 5
- Combined Maths: A | Physics: A | Chemistry: A

### R/ Sivali Central College

2017

GCE Ordinary Level Examination

- 9As
- Mathematics, English, Sinhala, Buddhism, Science, History, Music, Business studies and InformationTechnology.

## Technical Expertise

- Programming Languages:
  - C++
  - Java
  - Python
  - Ballerina
  - JavaScript/TypeScript
  - Rust
- Databases:
  - MySQL
  - MongoDB
  - PostgreSQL
  - Oracle DB
  - Qdrant
  - Chroma DB
- Frameworks & Libraries:
  - React
  - Angular
  - Spring Boot
  - Node.js
  - OpenCV
  - TensorFlow
  - PyTorch
  - React Native
- Artificial Intelligence & ML:
  - Transformers
  - Deep Learning
  - Computer Vision
  - Continual Learning
  - Model Optimization (ONNX, Quantization)
  - Explainable AI (XAI)
- Tools & Platforms:
  - Git
  - GitHub
  - Bitbucket
  - Docker
  - Kubernetes
  - Postman
  - GitHub Copilot

## Certifications

- Opencv Bootcamp
- Postman API Fundamentals Student Expert
- Intermediate Machine Learning- Kaggle

## PROJECTS

### NeuraShield: Adaptive AI System for Real-Time Web Attack Detection - Final Year Research Project

2025 June - Ongoing

Python | PyTorch | Keras | Transformers | Rust | Envoy | Kubernetes | ONNX

- Built real-time detector for SQLi, XSS, SSRF, and OS command attacks using lightweight transformers.
- Added continual learning with replay buffer and ONNX + INT8 optimized inference.
- Integrated XAI for analyst visibility and a human-in-the-loop engine to validate ambiguous patterns and refine the model.

### AI Multi-Agent Automation (Multi-Tenant) - Surecore & MintHRM

2025 Nov - Ongoing

LangGraph | MCP | Keycloak | Python | FastAPI | Qdrant | Docker | Kubernetes

- Built core multi-agent product acting as a personal AI assistant (RAG) with automated tasks, reports, and workflow orchestration for both companies.
- Implementing multi-tenancy with Keycloak and metadata-driven isolation across agents and datasets.
- Integrating MCP tools and exploring advanced automation capabilities for enterprise workflows.

### Serendib Micro Insurance Platform - Cambodia - Surecore

2025 Jul - 2025 Dec

Angular | Spring Boot | Java | Kubernetes | Microservices | Oracle DB

- Developed and maintained full-stack features for the Serendib insurance platform, including invoices, financial reports, authentication, and production bug fixes.
- Worked across a microservice architecture covering payments, finance, and underwriting services.
- Contributed to both frontend and backend engineering, ensuring smooth module integration and reliable deployments on Kubernetes.

### WSO2 Certification Portal - WSO2 LLC - Internship Project

2025 Jan - 2025 Jul

[Website](#)

React TypeScript | Redux | Ballerina | Choreo | MySQL | Asgardeo | Salesforce

- Maintained and enhanced an enterprise certification management system, ensuring reliability and smooth execution of end-to-end certification workflows.
- Added new features and improved existing backend APIs using Ballerina, supporting evolving functional and integration requirements.
- Strengthened security by improving authentication and authorization flows through deeper integration with Asgardeo.
- Contributed to frontend enhancements using React and Redux, focusing on state management, usability, and production stability.

### Train Booking System

2024 Jul - 2024 Nov

[View on Github](#)

Node.js | Express | React | MySQL

- Built a full-stack train booking system with train search, seat selection, and reservation workflows.
- Implemented REST APIs and transactional database logic using MySQL.
- Developed a responsive frontend to support seamless user interaction.

## References

Dr. Chathuranga Hettiarachchi  
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## MechaPulse - Intelligent Machine Fault Detection (Competition Project)

2024 Jan - 2024 Jul

[View on Github](#)

Python | OpenCV | Flask | Node.js | JavaScript | MQTT

- Built an IoT-based machine fault detection system using sound analysis and machine learning techniques.
- Implemented real-time data ingestion, inference, and communication using MQTT.
- Developed a web interface for monitoring machine health and fault status.

## IEEE Challenge Sphere - Event Website

2024 Nov

[Website](#)

ReactJS | GitHub Pages

- Developed a responsive website to showcase IEEE Challenge competition details and updates.
- Built reusable UI components using React for maintainable design.
- Deployed and maintained the site using GitHub Pages.

## AWARDS AND HONOUR

### • 1st Runner UP - Cypher 2.0 Hackathon (April 2024)

Organized by the IEEE WIE Student Branch Affinity Group of KDU in collaboration with AION Campus. Our team of four was selected for the finals after completing data science tasks. Competing against 20 teams, we placed 1st runner-up in a supervised hackathon where AI tools were prohibited.

### • Top 5 Winners - Mini Hackathon (May 2024)

Organized by the Mathematics Society of the University of Moratuwa. This hackathon had a strong focus on mathematics. Among the top 5 winners out of 1000+, I was recognized for my performance.

### • Semi-Finalists - SLIOT Challenge (Jan 2024)

Organized by the Department of Computer Science and Engineering, University of Moratuwa, with SLT Mobitel. We developed MechaPulse Solution, a machine fault detector using sound, as our IoT solution for the competition.

### • IEEE Extreme - Global Hackathon (Oct 2023)

Top 100 of Sri Lanka Ranking

Top 2500 Global Ranking

## LEADERSHIP ROLES

- Deputy Pillar Head - Membership Development Pillar - Sasnaka Sansada (2025 - 2027)
- Team Leader - IGV - Aiesec Colombo South
- Department Representative - Department of Computer Science and Engineering (2023-2024)
- Senior Prefect - R/Sivali Central College (2017 - 2028)