

LOCHANA MARASINGHE

Full Stack Software Engineer With 3+ Years Experience

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lochanamalt



EXPERIENCE

Senior Software Engineer

CodeGen International

January 2022 - July 2023

Colombo, Sri Lanka

Technology Stack: Java EE, Angular, TypeScript, JavaScript, Spring Boot, MySQL, Redis, GCP, Docker

- Designed and Implemented features in 5 products across 3 domains: Education, Web Conferencing and Logistics
- Completed designing, developing and launching of vehicle delivery driver assigning system as a solution to minimize travel costs by 14%
- Designed and developed authentication and authorization flows
- Collaborated on developing a shared virtual session module to handle virtual sessions and session providers such as Zoom, MS Teams, and Jitsi
- Engaged in client interactions and created solutions to meet client requirements
- Performed deployments of web applications on GCP App Engine and Compute Engine
- Experienced in setting up virtual machine instances from scratch to application deployment
- Tested and monitored the performance of systems using JMeter and Grafana

Software Engineer

CodeGen International

July 2020 - June 2022

Colombo, Sri Lanka

Technology Stack: Java EE, Angular, JavaScript, Spring Boot, MySQL

- Collaborated on developing features in 2 products including a learning management system for universities, and a service for conducting exams
- Engineered an efficient appointment scheduling solution for individuals and organizations
- Engaged in agile development processes, including design, planning, and estimation tasks

Intern Software Engineer

Effective Solutions

January 2019 - April 2019

Piliyandala, Sri Lanka

Technology Stack: Node.js, HTML, JavaScript, MySQL, Bit Bucket

- Performed database migration tasks using MySQL
- Collaborated on developing a sales management system

Intern Software Engineer

Institute of Java and Software Engineering

November 2017 - March 2018

Panadura, Sri Lanka

Technology Stack: Java, Hibernate, HTML, CSS, JavaScript, MySQL

- Created an online game using HTML, CSS, and JavaScript
- Developed a standalone and web-based point-of-sale system

EDUCATION

Postgraduate Diploma in Computer Science

University of Moratuwa, Sri Lanka

January 2021 – August 2022

B.Sc. (Hons) in Electrical and Information Engineering

University of Ruhuna, Sri Lanka

January 2016 – March 2020

OGPA: 3.64/4.00

Diploma in Software Engineering

IDM Achievers International Campus

February 2015 – December 2015

SKILLS

- **Concepts** - OOP, SOLID, Agile, Data Structures and Algorithms, ACID, Design Patterns, RESTful API
- **Core Technical Skills** - Java/Java EE, JavaScript, TypeScript, Python, C++, Go, PHP, HTML, CSS
- **Frameworks & Libraries** - Spring Boot, Spring ORM, Spring Security, Angular, Node.js, Maven, Bootstrap, jQuery, OpenCV
- **Databases** - MySQL, Redis, Neo4j, Elasticsearch
- **Testing** - JUnit, Mockito, Postman
- **Version Controlling** - Git, GitLab, GitHub
- **Cloud Native** - GCP, AWS, Docker
- **Hardware** - Arduino, NodeMCU ESP32, Raspberry Pi

PROJECTS

Sleep Classification Using XeThru Sensor

Partnering with Novelda AS in Norway, this undergraduate project aimed to improve sleep disorder detection by classifying different sleep stages using a machine learning model by feeding the respiration and movement signals of a person.

- **Technology Stack:**
 - Languages: Python, C++
 - Programmable Devices: NodeMCU ESP32, Raspberry Pi

EO/IR Based Maritime Surveillance System in Collaboration With TRCSL

This project supports maritime surveillance in detecting violations of maritime policies such as maritime security, fisheries control, and smuggling by effectively identifying objects on the ocean surface.

- Technology Stack: Python, CNN – Single Shot Detector, AWS Sagemaker

Distributed Content Searching Network

A distributed file-searching network utilizing an unstructured peer-to-peer Gnutella network. Upon file request initiation, the file is searched via query flooding until the file is found. The search result is then sent back to the requesting peer, and if multiple peers have the file, it selects one to receive it.

- Technology Stack:
 - Languages: Java
 - Deployment: Amazon EC2 instances

StockBot: Stock Market Analysis Solution

An automated solution for the stock market investors to take better investment decisions through the analysis of technical indicators such as MACD, RSI, and Bollinger Bands. Investors can subscribe to companies of their choice, and receive technical indicator updates directly in their Twitter inbox via a Twitter chatbot. This project utilises SaaS applications of AWS.

- Technology Stack: AWS Lambda, AWS API Gateway, Auth0, Alpha Vantage API

Fingerprint Attendance Marking System

A fingerprint-based attendance tracking system for universities, allowing easy and accurate tracking with real-time access for both lecturers and students.

- Technology Stack:
 - Languages & Frameworks: PHP, HTML, JS, Bootstrap, AJAX
 - Programmable Devices: Arduino (C/C++)

Automatic Drug Injector

An automatic drug injection device with a syringe for patients requiring continuous low-dose medication treatment over a certain period of time.

- Technology Stack: Arduino (C/C++)

Drowsiness Detector

A drowsiness detection system for drivers to prevent accidents. Drowsiness is detected by calculating the eye-aspect ratio, then alerts the driver when the eye-aspect ratio is low.

- Technology Stack: Python, OpenCV, NumPy

INTERESTS

Competitive Programming Microservices Robotics IoT
Embedded Systems Machine Learning Computer Vision

COURSES


- **AWS Academy Machine Learning Foundations Course** - AWS Academy
- **Data Integration Specialist Course** - AWS Educate
- **Cloud Computing 101 Course** - AWS Educate
- **Intro to Machine Learning Course** - Kaggle
- **Intermediate Machine Learning Course** - Kaggle

STRENGTHS

Flexibility Versatility Curiosity
Resolving Challenges Teamwork

ACHIEVEMENTS

 **XbotiX Inter-University Robotic Competition - 2017**
First Runners-up

 **Sky of Icarus Inter-University Drone Competition - 2019**
Second Runners-up

 **HackADev Youth Software Competition, Sri Lanka - 2018**
Finalist

 **HackX Inter-University Hackathon - 2018**
Finalist

SPORTS

- **Weightlifting Inter Faculty Novices' Competition 2018 – First Runners-up**
- **Taekwondo Inter Faculty Sports Meet 2017, 2018- First Runners-up**

VOLUNTEER EXPERIENCE

- **Eminence v1.0 2019** - Inter-Faculty IEEE WIE Design Competition Organizing Committee
- **Shield of Code v1.0 2019** - Inter-Faculty Hackathon Organizing Committee
- **SOS Charity Event 2018 (Mathematics Seminar Series)** - Volunteered in Teaching
- **IEEE Day 2017** - Organizing Committee
- **Mehewara 2016 (Mathematics Seminar Series for School Students)** – Volunteered in Teaching

EXTRA CURRICULAR

- **Secretary – IEEE Student Branch, University of Ruhuna** [June 2019 – June 2020]
- **Secretary – IEEE Industrial Application Society, University of Ruhuna** -[June 2018 – May 2019]