

K. Dhananjani Jayarukshi

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GitHub: github.com/dhana1023 

Experience

Software Engineer Intern

Richard Pieris & Company PLC

Nawinna, Maharagama

Jan 2025 – June 2025

- Developed a real-time price anomaly detection tool for supermarket items using Python, Streamlit (UI), Flask API, and Oracle DB integration.
- Engineered a sales prediction system incorporating external variables (weather, elections in Sri Lanka) using Python (backend), HTML/CSS/JS (frontend), Oracle DB, and weather API integration.
- Implemented a new customer registration module using Java and conducted UI/UX improvements and bug fixes for an existing NetBeans-based furniture sales application.

Research Project Intern

EWARN System Pvt. Ltd.

Rourkela, India

May 2022 – Aug 2022

- Designed and developed a mobile application for real-time accident detection, handling both front-end and back-end using Flutter, Firebase, and Google Maps API.
- Implemented user authentication and profile management with Firebase.

Data Analyst Intern

ShapeAI

Mumbai, India

July 2021 – Oct 2021

- Collected, cleaned, and analyzed data to uncover trends and insights using Excel, SQL, and Python.
- Created interactive dashboards and visual reports with Power BI.

Education

Master of Technology in Computer Science and Engineering

National Institute of Technology Karnataka, Surathkal, India

August 2023 – June 2025

- CGPA: 8.36/10
- First Class Honours
- **Coursework:** Network Engineering, Next Generation Cloud Architecture, Distributed Data Management

Bachelor of Technology in Computer Science and Engineering

National Institute of Technology Rourkela, India

June 2019 – June 2023

- CGPA: 7.96/10
- First Class
- **Coursework:** Data Structures & Algorithms, Computer Organization & Architecture, Database Engineering, Software Engineering

Advanced Level Examination

C.W.W.Kannangara Central College Mathugama

August 2018

- Combined Mathematics - A
- Chemistry - B
- Physics - C
- General English - A

Publications

Accident Rescuing System for Vehicles in Road Traffic: A Smart Phone Application Dec 2022
Conference Paper – 2022 IEEE 4th International Conference on Cybernetics, Cognition, and Machine Learning Applications (ICCCMLA)

doi: [10.1109/ICCCMLA56841.2022.9989166](https://doi.org/10.1109/ICCCMLA56841.2022.9989166) [↗](#)

Efficient Parallel Algorithm for Detecting Longest Flow Paths in Flow Direction Grids April 2025
Conference Paper – 2025 3rd International Conference on Intelligent Systems, Advanced Computing and Communication (ISACC)

doi: [10.1109/ISACC65211.2025.10969329](https://doi.org/10.1109/ISACC65211.2025.10969329) [↗](#)

Projects

Lightweight M2M Authentication System in IIoT

- This proposes a lightweight authentication protocol for M2M communication in IIoT, ensuring secure router and sensor registration, login, authentication, and password updates using XOR, encryption, decryption, and hash functions.
- Tools Used: Python, socket, threading, hashlib (SHA-256, BLAKE2b)

Dynamic Task Offloading in VANETs

- Implemented a greedy matching algorithm for efficient task offloading in VANETs, optimizing resource utilization, reducing latency, and improving system performance.
- Tools Used: Python

Book Review Application

- Developed a modern web application for sharing and discovering book reviews. Users can browse reviews, add their own, and engage with the book-loving community.
- Tools Used: React with TypeScript, Node.js, CSS, MySQL

Blogging Website with Dynamic Features

- Created a blogging website, featuring dynamic pages, content creation, and a user dashboard with Google authentication.
- Implemented functionality for posting, managing, editing, and deleting posts.
- Tools Used: HTML, CSS, JavaScript, Node.js, and Firebase

Real-Time Election Voting System

- Developed a distributed real-time election voting system with a Streamlit dashboard for monitoring and visualizing voting trends, ensuring transparency, accuracy, and efficiency.
- Tools Used: Python, Kafka, Spark Streaming, and PostgreSQL

Session-Based Recommendation System with Reservoir Sampling

- Developed a session-based recommendation system using reservoir sampling for efficient streaming data processing, enabling real-time, adaptive recommendations based on evolving user behavior.
- Tools Used: Python, CUDA, reactJS

Technologies

Languages: Python, C++, C, Java, SQL, JavaScript, HTML, CSS, R

Technologies:

MySQL, PostgreSQL, CUDA, Apache Kafka, Streamlit, Firebase, MongoDB, Socket programming, PowerBI, Jira

Certificates

Google Project Management Professional Certificate

October, 2024

[Coursera PM](#) [↗](#)

Learning Data Analytics: 1 Foundations

May, 2023

[LinkedIn Learning](#) [↗](#)

Google Data Analytics Professional Certificate

October, 2022

[Coursera Data Analytics](#) [↗](#)

Google Foundations of Project Management Certificate

June, 2024

[Coursera FPM](#) [↗](#)

Postman API Fundamentals Student Expert certification - Postman Academy

February, 2024

Spoken English - Intermediate

December, 2018

[British Council](#) [↗](#)

Extracurricular Activities

Athletics, Team Events (School, Divisional, Zonal, Provincial, All Island):

- Participated in various running events (100m, 200m, 400m) and Throw Ball at School, Divisional, Zonal, Provincial, and All Island levels, achieved championships and certificates.

Active Member at Rotaract Club of NIT Rourkela (2020-2023):

- Contributed to organizing and managing club activities, including fund management and planning service projects. Developed leadership and professional skills through active participation in community activities