

VIBULAN JEYARASA

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A Computer Science and Engineering undergraduate at the University of Moratuwa specializing in Data Science. Passionate about Software Engineering, Machine Learning and Data Science, I am eager to build a career where I can apply and expand my knowledge. I actively seek opportunities to enhance my technical skills and gain hands-on experience through projects.

EDUCATION

University Of Moratuwa BSc. Eng. (Hons.) in Computer Science and Engineering	Jan 2021 - Present
J/Hartley College Advanced Level: 3A	Jan 2011 - Aug 2019

EXPERIENCE

AI/ML Engineering - Intern iVedha Inc.	Nov 2023 - May 2024
-Built models using different machine learning algorithms for wine quality, house price prediction. -Contributed to the development of an AI-driven CV creation platform XCV by designing and implementing user friendly CV templates.	

SKILLS

Data Science	PyTorch Hugging Face ML DL NLP
Programming	Python Java OOP Git
Web, Cloud	JavaScript ReactJS Spring Boot NodeJS MySQL MongoDB AWS

PROJECTS

High-Performance Small Language Model for Tamil	May 2024 - Jun 2025
Technologies: Python, PyTorch, Hugging Face, NLP	
Final Year R&D Project, Developing a resource-efficient framework for training and optimizing Tamil language models using advanced model distillation techniques. The project focuses on developing a compact and high-performance model specifically tailored for NLP tasks such as Question Answering (QA), optimized to operate efficiently on limited computational resources.	

Movie Review Application Backend Development	Oct 2024 - Dec 2024
Technologies : Java, Spring Boot, MongoDB	
Developed a movie review application backend using Spring Boot, with MongoDB for efficient data storage, and management of movies, reviews, and ratings, ensuring secure and scalable API interactions for the React frontend.	

Localized Chatbot for Hospital Customer Care	Aug 2023 - Nov 2023
Technologies: Python, RASA, MySQL, Llama, Langchain, ChromaDB, spaCy	
Developed a multilingual chatbot leveraging RASA and an LLM-based Retrieval-Augmented Generation (RAG) system to provide medical guidance and facilitate appointment booking for Sinhala and Tamil speakers. Additionally, developed an interactive dashboard to monitor user engagement, perform sentiment analysis, and generate topic modeling summaries.	

COVID-19 Detection with Convolutional Neural Networks	Sep 2023 - Oct 2023
Technologies : Python, PyTorch, torchvision, NumPy, Matplotlib, Scikit-learn	
Developed a deep learning-based image classification model to predict COVID-19 from lung CT scans using Convolutional Neural Networks (CNNs). Applied techniques such as normalization, dropout, and early stopping to reduce overfitting. Evaluated model performance using 5-fold cross-validation, reporting key metrics such as precision, recall, and F1 score.	

Employee Attrition Analysis at Marvelous Construction

May 2023 - Jul 2023

Technologies : Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn

Analyzed employee attrition for Marvelous Construction using ERP data with 997 records across 19 variables. Cleaned and processed the data to identify key factors like marital status, age group, and employment type. Proposed actionable strategies to help the CEO improve employee retention and workplace satisfaction.

Single Vendor E-commerce Platform

Nov 2022 - Jan 2023

Technologies : React, Node, Express, MySQL

Developed an e-commerce platform with seamless product purchasing and business monitoring through an admin dashboard, supporting inventory management, customer interactions, and integrated checkout processes for efficient order fulfillment.

Email Client

Jun 2022 - Jul 2022

Technologies : Java, OOP

Developed an email client application in Java, leveraging Object-Oriented Programming (OOP) principles and the Simple Mail Transfer Protocol (SMTP) through the javax.mail API to provide efficient and seamless email communication.

CERTIFICATIONS

Machine Learning for Natural Language Processing - AWS

Supervised Machine Learning: Regression and Classification - Coursera

Feature Engineering - Kaggle

RELEVANT ACADEMICS

Data Structures and Algorithms

Deep Neural Networks

Database Systems

Natural Language Processing

Data Visualization

Operational Research

Advanced Machine Learning

Operating Systems

Big Data Analytics

Organizational Behavior, Management

Applied Statistics

Program Construction

EXTRACURRICULAR/VOLUNTEER ACTIVITIES

President - Tamil Literary Association - University of Moratuwa

Oct 2024 - Present

Department Representative - Dept of Computer Science and Engineering

Feb 2023 - May 2024

Senior Prefect - Hartley College

Jun 2017 - Aug 2019

School Table Tennis Team - Captain - Won Provincial 1st runner-up

2017

School Carrom team - Won Zonal champion and participated in Provincial level

2017

School Chess team - Won Provincial champion

2014

School Cricket Team - Hartley College

2012 - 2014

REFERENCE

Dr. Kutila Gunasekera

Senior Lecturer

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