

Nimanthha Gayan

BSc (Hons) in Software Engineering

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Profile

Proactive Data Scientist with 1.5+ years of experience in designing, developing, and deploying scalable ML/AI solutions, specializing in AWS CI/CD pipelines, Docker and Snowflake data management, complemented by 7+ months as a Software Engineer. Proficient in Python, TensorFlow, and cloud platforms like AWS, Java Springboot, React and Typescript, I excel at building end-to-end ML workflows, from data preprocessing to production deployment. Adept at collaborating with cross-functional teams to deliver impactful AI solutions aligned with business objectives.

Professional Experience

Dialog Axiata PLC

Software Engineer, Jan 2025 – Present

- Developing the admin dashboard for the IdeaBiz platform using React, TypeScript, Redux, Axios, and TailwindCSS, supporting data visualization for platform metrics.
- Developed REST APIs with Java Spring Boot and MySQL, enabling data-driven analytics for users.
- Collaborated in Agile sprints, contributing to code reviews and CI/CD pipelines, achieving 98% on-time feature delivery

Softvil Technologies

Computer Vision – AI Trainee, Feb 2024 – Jan 2025

- Developed a face recognition system using Python, achieving high accuracy with minimal data through deep learning models (FACENet, VGG16, MobileNet).
- Optimized data preprocessing pipelines with Pandas and NumPy, reducing processing time.
- Built Flask-based APIs for real-time data processing, supporting AI model deployment.

MAS Capital (Private) Limited

Data Science Intern, Jan 2023 – June 2023

- Developed and validated Python scripts automating data preprocessing, predictive modeling, and Excel file generation for Power BI integration in the Accounts Receivable domain. Utilized forecasting models (Exponential Smoothing, ARIMA) to predict customer behaviors, improving RFM score accuracy. Collaborated on Power BI dashboards and automated alerts using Microsoft Power Automate, leveraging DAX queries for insights.

Education

B.Sc. (Hons) in Software Engineering

University of Kelaniya, 2020 – 2024

GPA: 3.55

G.C.E. Advanced Level

2018

Combined Mathematics: A, Physics: B, Chemistry: B

Projects

Production-Ready Ecommerce Chatbot

Python, Flask, LangChain, AWS

[Source Code](#)

- Developed a chatbot using Python, Flask, and LangChain to assist users with personalized product recommendations and inquiries. Implemented a RAG pipeline with OpenAI embeddings and AstraDB as a vector store for contextual retrieval. Integrated with database to handle. Implemented containerized deployment on AWS EC2 with CI/CD pipeline for automated model updates.

Scalable Face Recognition ML Platform

Python, TensorFlow, Deep Learning

[Source Code 1](#) | [Source Code 2](#) | [Source Code 3](#)

- Built a high-accuracy face recognition system using FACENet, VGG16, and MobileNet with minimal data. And Leveraged Python and TensorFlow for model optimization and real-time performance.

Real-time CNN-Powered Yoga Pose Estimation (Research)

Python, Flask, MediaPipe, MLOps

[Source Code](#)

- Developed a real-time CNN-based system for Tadasana alignment feedback using MediaPipe and a web application using Flask. And Published abstract of the research at the 8th International Research Conference of Uva Wellassa University.

IdeaBiz Admin Dashboard

React, TypeScript, Redux, Axios, TailwindCSS

- Built a responsive admin dashboard for managing platform operations, using React, TypeScript, Redux, and TailwindCSS for the frontend.

Book Library Management System

Java Spring Boot, MySQL, RESTful API

[Source Code](#)

- Developed a library management system with book booking features using Spring Boot, MySQL, and RESTful APIs. Implemented CRUD operations, date-based availability checks, and robust error handling with HTTP status codes. Utilized JPA/Hibernate, DTO patterns, and Postman documentation for scalable and secure API development.

Technical Expertise

- **Data Science & Machine Learning:** Large Language Models (LangChain, LLaMA, OpenAI API), Retrieval Augmented Generation (RAG), Deep Learning (TensorFlow, PyTorch), Neural Networks (CNN, RNN, LSTM, Transformers), NLP, Feature Engineering, Data Cleaning & Preprocessing (Pandas, NumPy, Matplotlib)
- **Cloud & DevOps:** AWS (SageMaker, EC2, CodePipeline), Azure, Docker, Kubernetes, CI/CD (GitHub Actions) And Docker for Containerization.
- **Programming & Development:** Python, Java, SQL, C; Java Spring Boot, Flask; React, TypeScript, JavaScript, Next.js, HTML, CSS (Bootstrap, TailwindCSS);
- **Databases:** MySQL, PostgreSQL, MongoDB, AstraDB, ChromaDB
- **Software Engineering Fundamentals:** Data Structures and Algorithms, Object-Oriented Programming (OOP) with SOLID principles, Version Control (Git)

Achievements

- Committee Member, IEEE Student Branch, University of Kelaniya, 2022–2024.
- 4th Place, Junior Hackathon 2021, showcasing data-driven problem-solving.
- Organizing Committee, RealHack 3.0, 4.0, 5.0, Software Engineering Students Association.
- Research Contribution: Published research on CNN-powered pose estimation systems.

References

Dr. Nalin Warnajith, Head of Software Engineering Teaching Unit, University of Kelaniya

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Dr. Isuru Hewapathirana, Senior Lecturer, University of Kelaniya

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