SHEHAN DILHARA

UNDERGRADUATE
BSC (HONS) IN INFORMATION TECHNOLOGY
SPECIALISING IN INFORMATION TECHNOLOGY

078 768 9821
dshehan588@gmail.com
Malabe, Colombo.
github.com/shehanD2004

PROFESSIONAL PROFILE

Second-year IT undergraduate at Sri Lanka Institute of Information Technology with strong interests in Machine Learning and AI. Experienced in building end-to-end ML projects including NLP systems, anomaly detection models, and chatbot applications. Skilled in Python, SQL, and modern ML frameworks. Seeking an AI/ML internship to apply and expand real-world problem-solving skills.

PROJECTS

RAG-BASED PERSONAL DOCUMENT ASSISTANT GITHUB

Technologies and Tools: Python, FastAPI, ChromaDB, Sentence Transformers, HTML, CSS and JavaScript.

- Develop RAG based application that lets users upload PDFs, index their content into embeddings, and ask natural-language questions.
- The system retrieves the most relevant chunks using ChromaDB and responds using the stored text data.

WEB-BASED AI CHATBOT (RESUME CHATBOT) GITHUB

Technologies and Tools: Node.js, Express.js, HTML, CSS, JavaScript, OpenAI API, Nodemon, dotenv, node-fetch.

- Built a web-based AI chatbot powered by the OpenAI API that allows users to interactively ask questions about a person's resume, skills, projects, education, and interests.
- Fully customizable for anyone, making it a versatile tool for personal portfolios, resumes, or learning projects.

HARMFUL CONTENT DETECTOR GITHUB

Technologies and Tools: Python, Pandas, NumPy, scikit-learn, Uvicorn, FastAPI, Docker, Jupyter Notebook.

- Built a complete ML pipeline: data cleaning, feature engineering, model training, evaluation, and deployment via a FastAPI service, with optional Docker containerization.
- An end-to-end machine learning system for detecting harmful and offensive text, designed with online safety and content moderation use cases in mind.

SYSTEM HEALTH MONITOR GITHUB

Technologies and Tools: Python, psutil, pytest, python-dotenv.

- Develop a lightweight Python application that monitors system resource usage and logs metrics with timestamped alerts when thresholds are exceeded.
- CPU, Memory, and Disk monitoring, Configurable thresholds, Timestamped logging, Console alerts, Modular testable design, Email alerts when thresholds are exceeded.

TRANSACTION FRAUD DETECTION SYSTEM GITHUB

Technologies and Tools: Python, Scikit-learn, XGBoost, NumPy, Pandas, Matplotlib, Seaborn

- Developed a scalable financial transaction fraud detection system using XGBoost and ensemble learning techniques on 1.27M transaction records, achieving 100% fraud detection rate while maintaining 99.87% accuracy on highly imbalanced data.
- Implemented imbalance-aware modeling with scale_pos_weight calculation, advanced feature engineering (balance change, ratio, and temporal features), GridSearchCV cross-validation, and hyperparameter tuning, achieving a 0.89 macro-average F1-score with 100% fraud recall and 0.77 fraud-specific F1-score.

EDUCATION

2024 - 2028	**SLIIT** - Undergraduate BSc(Hons) in Information technology Specialising in Information Technology.
2021 - 2023	**MO/ Royal College** - G.C.E A/L (Commerce stream)
2015 - 2020	**MO/ Royal College** - G.C.E O/L (English Medium)

Relevant Coursework (University): Data Structures & Algorithms, OOP Concepts, Artificial Intelligence & Machine Learning, Database Design & Development, Probability & Statistics, Software Engineering.

SKILLS

Technical Skills

- **Programming Languages:** Python, Java, JavaScript.
- **Web Technologies:** React, Express (Node.js).
- **Databases:** MySQL, MongoDB, SQL.
- **Tools & Frameworks:** TensorFlow,Pandas, NumPy, Keras, Postman.
- **Domain Knowledge:** Machine Learning, Artificial Intelligence (AI), Natural Language Processing (NLP), Computer Vision.

Soft Skills

- Collaborative Problem Solving
- Integrity & Ethics
- Analytical Skills
- Engineering Excellence
- Strong Attention to Detail

CERTIFICATES

Kaggle Intro to Machine Learning

AI/ML Engineer - Stage 1 (SLIIT)

Introduction to Google Cloud (Google Skills)

REFERENCE

References available upon request