Aneena Saju

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## Summary

Enthusiastic Data Science and AI fresher passionate about transforming raw data into actionable intelligence. Strong foundation in machine learning principles with demonstrated ability to develop predictive models and natural language processing solutions. Excels at translating complex patterns into clear insights. Eager to apply theoretical knowledge to real-world challenges in AI-driven decision-making.

## TECHNICAL SKILLS

- Data Science & AI: Python, SQL,ML-Supervised/Unsupervised Learning, Data Visualization, Deep Learning, NLP, LLMs,
- Frameworks & Libraries & Models: Scikit-learn, Langchain, TensorFlow, Keras, pandas, NumPy, Matplotlib, Seaborn, OpenCV, Streamlit, Llama
- Tools: Power BI, MySQL Workbench, Jupyter Notebook, Google Colab, VS Code, PyCharm, Matlab
- Platforms: Windows, Linux, AWS, Git
- Soft Skills: Problem Solving, Analytical Thinking, Communication, Team Collaboration

#### EXPERIENCE

Luminar Technolab Data Science Intern

Kochi, Kerala

Sep 2024 - Apr 2025

- o Data Analysis: Performed exploratory data analysis and statistical modeling using Python, SQL, and Power BL
- Machine Learning: Built and deployed predictive models using Scikit-learn and Streamlit.
- o Deep Learning: Applied Neural Networks (ANN, CNN, RNN) to solve complex business problems.

Acmegrade Machine Learning Intern Bengaluru, Karnataka May 2023 - Jun 2023

• Model Development: Developed and optimized machine learning models for recommendations and predictions.

### Projects

• Candlelight FAQ Chatbot with LangChain & Gemini: Built an intelligent chatbot to answer real-time queries from a structured FAQ dataset about Candlelight concerts. Integrated LangChain with Gemini 1.5 Flash as the LLM, used HuggingFace (BAAI/bge-small-en) embeddings, and FAISS for semantic search. Enabled chat history handling with ConversationalRetrievalChain.

Python, LangChain, Gemini Flash, FAISS, HuggingFace, Streamlit

• Meta Stock Price Prediction using GRU-LSTM: Developed a hybrid GRU-LSTM model to predict Meta's stock prices using historical time series data. Applied MinMax scaling, trained with Adam optimizer, and validated predictions through R<sup>2</sup> score and RMSE.

Python, Keras, TensorFlow, Pandas, Matplotlib, scikit-learn

• Pothole Segmentation with YOLOv8: Trained YOLOv8 on a custom-labeled dataset to detect and segment potholes in images and videos. Integrated OpenCV for preprocessing and post-processing to estimate damage severity via area percentage.

YOLOv8, OpenCV, Python, Ultralytics, ONNX, FFmpeg

- Waste Classification using CNN: Built a CNN to classify waste into 9 categories (e.g., plastic, metal, organic) from over 10,000 images. Used data augmentation and class weighting to address imbalance and improve accuracy. TensorFlow, Keras, OpenCV, Google Colab
- Vehicle Insurance Fraud Detection: Designed a fraud detection pipeline using ML models. Performed EDA, feature engineering, handled class imbalance using SMOTE, and applied GridSearchCV for model tuning across 9 algorithms. Python, scikit-learn, XGBoost, SMOTE, Seaborn

# **EDUCATION**

# Cochin University of Science and Technology

B. Tech., Electronics and Communication Engineering

Kochi, India

2020 - 2024

#### ACHIEVEMENTS

- Python 101 for Data Science: IBM Developer Skills Network
- CS105: Introduction to Python: Saylor Academy
- SQL and Relational Databases 101: Cognitive Class
- Data Visualization: Tata Group/Forage (Job Simulation)
- Intro to Machine Learning: Kaggle