Praveen Raja N

ML Developer

n.praveen777raja@gmail.com

9791143659

Flat no.4,A2 Block Breeze Apartment, Jayaram street,Thiruvanmiyur,Chennai-600041

linkedin.com/in/praveenrajadev

github.com/PRAVEEN-tech777

EDUCATION

MCA
University of Madras

BCA
Patrician College of Arts and Science

SKILLS

Programming languages
Python,Sql,Postgresql

Technical Skills
Machine Learning, NLP, Feature Engineering, Deep Learning, Data Science, FastAPI, Prompt Engineering, LLM, Airflow, RAG, Langchain, RPA,Time Series

Libraries and Frameworks
Numpy, Pandas, Ollama, Huggingface, Scikit Learn, Keras, XGBoost, LightGBM, CatBoost, RandomForest, Transformers, Pgvvector database

Tools
SSM(Sql Server Management), Visual Studio Code, Jupyter Notebook, Spyder, Nvidia GPUs, AWS SageMaker

LANGUAGES

Tamil ●●●●●

English ●●●●○

CERTIFICATES

- Python Full Stack Developer -Qspider,2020
- IITM Pravartak certified Artificial Intelligence & Machine learning

INTERESTS

- Gym
- Badminton

PROFESSIONAL EXPERIENCE

Access Healthcare Services
ML Developer
05/2021 – Present | Chennai

Led end-to-end ML solution development: data collection, preprocessing, model design, and deployment. Expertise in algorithm selection, tuning, and feature engineering for optimal performance. Specialized in scalable, monitored deployments for sustained accuracy.

KEY PROJECTS

Claim Voice/Non-Voice Outcome Prediction

Developed a machine learning solution to predict the handling of insurance claims (voice or non-voice) using business features. The project involved data cleaning, feature selection, hyperparameter tuning, and using multiple classifiers and ensemble models like Scikit-learn, XGBoost, LightGBM, CatBoost, and RandomForest. Featuretools was used for feature engineering, NLP techniques for text processing, and Apache Airflow for deployment automation

Smart Query (RAG)

Developed an advanced query system, Smart Query, utilizing retrieval-augmented generation (RAG) to interact with a knowledge base and provide accurate, context-aware responses to user queries. Leveraged technologies such as FastAPI, LangChain, PyPDF2, BERT, large language models (LLMs) from Huggingface, and Prompt Engineering. Employed embeddings and PgVector database to enhance semantic search capabilities. This system significantly improved information retrieval and user interaction with complex data sets, enabling efficient entity extraction from PDFs and documents.

Automated Solution for medical coding

Led the integration of Robotic Process Automation (RPA) and Large Language Models (LLMs) to automate inventory management processes effectively. Initiated by extracting data from diverse web sources using Optical Character Recognition (OCR), followed by applying advanced Natural Language Processing (NLP) techniques such as Named Entity Recognition (NER) for data preprocessing. Leveraged LLMs with prompt engineering and fine-tuning strategies to extract essential entities and insights. Managed transactions and retrieved pertinent information through REST API calls to streamline operations, significantly improving overall efficiency and accuracy in inventory management.

Python and SQL Expertise:

Developed and Maintained Backend Systems:

Leveraged Python to architect robust backend systems, ensuring efficient handling of data and seamless integration with front-end components.Proficiently used frameworks such as Flask and Django to develop scalable web applications and RESTful APIs

Transactional Data Management:

Utilized SQL Server for managing complex transactional data. Expert in writing optimized SQL queries, stored procedures, and triggers to ensure data integrity and performance

Monitoring and Maintenance:

Implement monitoring systems to continuously evaluate model performance and address issues as they arise. Re-train models periodically to adapt to changing data.