Communication (Good)

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Priyank Salot (3.2 Years)

Role - AI/ML Engineer

CV Highlights

- Skilled data science developer proficient in cutting-edge AI/ML algorithms and deep learning models, specializing in natural language understanding (NLU) with extensive experience in both proprietary and open-source large language models (LLMs) like Llama

Primary Skills

Python	3.2 Years	Advanced
NumPy	2.8 Years	Intermediate
Pandas	2.8 Years	Intermediate
Machine Learning	2.6 Years	Intermediate
Deep Learning	1.0 Years	Intermediate
LLM	2.0 Years	Intermediate
OCR	1.0 Years	Intermediate
NLP	1.0 Years	Beginner
Django	1.0 Years	Intermediate
Flask	1.0 Years	Intermediate

Secondary Skills

Beautiful Soup, Celery, OOPS, Postgres, Prediction / Forecasting, Python Scripting

Tools

Git

Gitlab

Methodology / Concepts

REST

Projects

SBI Chatbot: Advanced Conversational AI System *Team Size: 3*

Developed a chatbot system using OpenAI LLM, FAISS, and Sentence Transformer for semantic search and efficient data retrieval. The system enables seamless customer support by providing accurate, context-aware responses while efficiently handling large-scale text data.

Key Contributions

Built a scalable chatbot platform for accurate and context-aware responses.
Integrated Django for the admin interface, data management, and feedback collection.
Developed pipelines to convert customer queries into embeddings using Sentence Transformer and stored them in FAISS for optimized search.
Implemented feedback mechanisms for continuous improvement, allowing users to rate responses and provide comments.
Added contextual suggestions to enhance user engagement and improve query resolution.
Integrated logging and analytics to monitor chatbot performance, track user queries, and analyze accuracy.
Enhanced security by implementing data validation, role-based access control (RBAC), and encryption in the admin interface.

Technologies Used

OpenAI LLM, Sentence Transformer, FAISS, Django, PostgreSQL

Outcome

Improved customer support efficiency, reduced response time, and enhanced conversational accuracy with dynamic learning and refinement. The system effectively handles complex banking-related queries, ensuring a smooth user experience.

Skills: Django | Postgres | Python | LLM

Duration: 1 Year(s) 1 Month(s)

AI Solutions for DB Corp Ltd (Newspaper Publishing)

Team Size: 2

Worked on multiple AI-driven projects for DB Corp Ltd, a leading newspaper publishing company. Projects included Speech-to-Text and Image-to-Text (OCR) solutions to enhance content digitization and improve newsroom efficiency.

Key Contributions:

Developed a Speech-to-Text system using Recognizer and AudioFile for accurately transcribing audio content, enhancing editorial workflows.

Built an OCR solution using Google Gemini 1.5 Pro and Tesseract to extract text from scanned newspaper pages and handwritten documents.

Fine-tuned OpenAI GPT-3.5 Turbo and GPT-4o models to generate improved story content with enhanced coherence and contextual relevance.

Designed efficient data pipelines to preprocess text data, ensuring improved model performance.

Integrated automated content validation mechanisms to maintain high editorial standards.

Technologies Used:

OpenAI GPT-3.5 Turbo, **GPT-4o**, **Speech-to-Text APIs**, **Google Gemini 1.5 Pro**, **OCR Libraries** (e.g., **Tesseract**), **Python**

Outcome: Enhanced content creation workflows, improved accuracy of transcriptions, and enabled faster news digitization, supporting the company's editorial and content delivery process.

Skills: Django | Python | LLM

Duration: 1 Year(s) 0 Month(s)

On-Demand Forecasting of Nitrogen Oxide Emissions from Billings Refinery

Team Size: 5

Technologies Used:

Machine Learning Libraries: Scikit-Learn
Visualization and Analysis Tools: Matplotlib
Project Overview:
Developed a comprehensive pipeline to forecast nitrogen oxide (NOx) emissions in real-time for the Billings Refinery, using open-source machine learning frameworks. The project involved data preprocessing, model training, real-time predictions, performance tracking, and continuous model retraining.

Key Contributions:

End-to-End Pipeline Development: Built a full ML pipeline encompassing model training, prediction, retraining, and performance monitoring
ETL Script Design: Created core ETL scripts to automate data ingestion and transformation processes. The ETL scripts generated inferred tags from raw sensor data, which were used as inputs for the model.
Sensor Data Processing and Analysis: Preprocessed sensor data by performing exploratory data analysis (EDA) and correlation analysis to identify key independent variables from sensor inputs, ensuring accurate feature selection.

Hyperparameter Optimization: Implemented grid search for parameter tuning and model selection, optimizing model performance by finding the best parameters.

Live Benchmark Tracking: Developed a live tracking algorithm for benchmarking model performance and enabling a detailed review of specific configurations for further analysis.

Skills: Python | Machine Learning | Pandas | NumPy

Duration: 1 Year(s) 1 Month(s)