Pradeep Mallampalli

Data Scientist

Accomplished Data Scientist with thirteen years of comprehensive experience, including more than seven years of direct engagement in data science and AI in diverse industries such as Banking and Financial Services, Aerospace, Medical and Oil and Gas. Skilled in predictive modeling, data processing, and data mining, with a strong ability to implement holistic data solutions, that include data ingestion, analytics, ML, DL and Gen AI applications. Recently completed proof-of-concept projects utilizing the RAG framework with LangChain, demonstrating proficiency in cutting-edge AI technologies.

✉ pradeep.dst1@gmail.com

📍 11214 Foxhaven Drive, Charlotte, NC, United States

📱 7046491042

in linkedin.com/in/pradeepmallampalli

WORK EXPERIENCE

Trade Analytics - Anomaly Detection (BOFA)
Data Scientist - AI/ML Apr/2022 - present

Achievements/Tasks

– Developed and implemented an advanced statistical framework for detecting anomalous trades, significantly outperforming traditional rule-based methods

– Conducted comprehensive exploratory data analysis on large-scale trade data, identifying key statistical indicators crucial for accurate anomaly detection

– Utilized Python's statistical libraries and big data technologies to efficiently process and analyze terabytes of historical trade data

– Achieved 70% reduction in false alerts compared to the previous rule-based system, demonstrating the superiority of statistical methods in trade analytics

Disaster Recovery Acceleration (BOFA)
Data Scientist - ML / Data Engineer Jul/2020 - Mar/2022

Achievements/Tasks

– DRA (Disaster Recovery Acceleration) Program responsible for identification of Data corruption faster and stop propagation of corruption to downstream systems

– Created machine learning model to categorize AutoSys jobs into data movement and non-data movement classifications using NLP, leveraging job names and descriptions

– Building and integration entire pipeline with blend of technologies comprising ML, Pyspark , Python, Graph DB, SQL, ETL, Hive and Oracle

Image Analysis for Segmentation Using CNN (GE)
Data Scientist - Deep Learning Oct/2019 - Jun/2020

Achievements/Tasks

– Developed a CNN-based model for precise segmentation of anatomical structures and pathological regions in medical images. The project focused on preprocessing, training, and validating the model. Achieved high accuracy in segmenting critical areas, significantly aiding in diagnosis and treatment planning.

Credit default identification (Commonwealth)
Senior Lead Analyst - Data Science Feb/2019 - Sep/2019

Achievements/Tasks

– Develop and maintain credit risk models for PPNR and credit risk models leveraging upon Python, Oracle SQL, Tableau and other ETL Technologies

– Perform Exploratory Data Analysis using Python libraries for generating various graphs and charts for analyzing and implementing Machine Learning

Lithology prediction for drilling optimization (BHP-Oil & Gas)
ML Engineer Aug/2017 - Jan/2019

Achievements/Tasks

– Data collection, cleaning, processing, performing EDA and compiling the reports, Analyze large datasets and Developing ML Models and presenting project findings
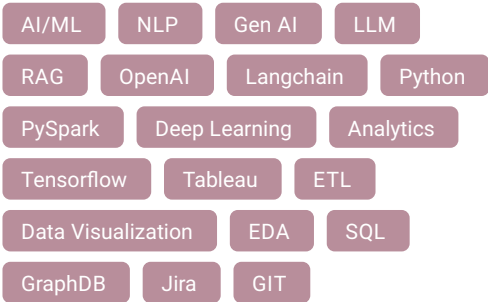
Aerospace Structural Analyst (Boeing)
Design Engineer Apr/2011 - Jul/2017

Achievements/Tasks

– Leverage CAD and finite element analysis FEA tools to simulate and test the behavior of the structures under various conditions such as aerodynamic loads, thermal stresses, and vibrations.

– Performs design and stress analysis of structure using classical hand methods and assessing the strength, stability & performance of structures

GENERAL SKILLS

AI/ML NLP Gen AI LLM RAG OpenAI Langchain Python PySpark Deep Learning Analytics Tensorflow Tableau ETL Data Visualization EDA SQL GraphDB Jira GIT

TECHNICAL SKILLS

Operating System
Windows, MacOS, Linux

Generative AI
LLMs, RAG, NLP, langchain, OpenAI

Data Science
Statistics, Regression, classification, Neural Networks, sklearn, Tensorflow, NLP, RNN, CNN, Transfer Learning

Programming Languages
Python, Pyspark, SQL, GSQL (Graph)

EDUCATION

BTech in Mechanical
Nagarjuna University - India

CERTIFICATIONS

IBM Data Science Professional Certificate
Coursera (2021)

Infosys Certified Generative AI Professional
Infosys (2024)

GEN AI PROJECTS (POC)

AI based Internal Organizational Chatbot

Agentic RAG for Information Extraction and Summarization in Large Datasets

MultiModal RAG for Document Q&A System with Text and Visual Content