Shantanu Mahapatra

Python Developer

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📍 Bangalore, Karnataka, India | LinkedIn

SUMMARY

Dynamic and passionate Data Scientist with 2.10 years of experience in data analysis, AI engineering, deep learning, and cloud solutions. Skilled in building secure, scalable systems leveraging AI, blockchain, and cloud technologies. Seeking to contribute technical expertise and leadership to drive innovation and business growth.

PROFESSIONAL EXPERIENCE

Machine Learning Engineer
Capgemini (Client: Sanofi)
Sep 2023 – Present | Bangalore, India
Project:
Sanofi is a global healthcare leader focused on prescription sales and patient needs, engaged in research, development, manufacturing, and marketing of health products. The company develops a diversified portfolio of medicines, vaccines, and innovative therapeutic solutions, including over-the-counter drugs across seven major areas: thrombosis, cardiovascular disease, diabetes, central nervous system disorders, oncology, internal medicine, and vaccines.

Responsibilities:

- Leading end-to-end development of machine learning models focused on business process automation, predictive analytics, and NLP-driven insights.
- Built and deployed deep learning models for sentiment analysis, text classification, and named entity recognition using Transformers (BERT, RoBERTa).
- Designed and implemented scalable data pipelines using Pandas, Dask, and Spark to handle real-time data ingestion and processing.
- Collaborated with cross-functional teams at Capgemini including Product, Engineering, and Business Units to scope and deliver impactful ML features.
- Performed root cause analysis and data exploration using SQL and visualization tools (Seaborn, Plotly) to uncover actionable insights and drive hypothesis validation.
- Conducted A/B testing and model performance evaluations to continuously improve system accuracy and reduce customer experience defects.
- Delivered customer-facing solutions by integrating models into APIs using FastAPI and deploying with Docker for production environments.

Project Name: Supply Chain Optimization Solution

Client Name: Global Conglomerate (Manufacturing, Global Operations)

Project Overview: The project enhances a global conglomerate's supply chain and warehouse efficiency by addressing demand mismanagement and inventory value loss. Implemented by Capgemini and Google Cloud, it features two components:

1. **Generative AI Chatbot**:
2. **Forecast Engine**:

Roles and Responsibilities in ML/Data:

- Develop and train chatbot using Vertex AI and LLMs.
- Build forecast engine for accurate demand predictions.
- Optimize models for forecasting and stock alignment.

Skills : Python, SQL , Pandas, NumPy, Dask, Vaex, Polars, Matplotlib, Seaborn, Plotly, Scikit-Learn, TensorFlow, Keras, PyTorch, XGBoost, LightGBM, CatBoost ,Hugging Face Transformers (BERT, RoBERTa, LLaMA, T5, GPT-3/4), LangChain, SpaCy, NLTK, LlamaIndex, Sentence Transformers , Deep Learning, Transfer Learning, Transfer Learning, Model Evaluation & Tuning, Prompt Engineering, RAG (Retrieval-Augmented Generation), FastAPI, Flask, Docker, Kubernetes , Git, GitHub, CI/CD , Google Cloud Platform (Vertex AI), Azure

Data Scientist Intern

EbixCash, Bengaluru, India

 Aug 2022 – Sep 2023

- Conducted data-driven analysis of pharmacy operations to optimize customer satisfaction.
- Built predictive models for inventory management and staffing.
- Recommended operational improvements reducing stockouts and wait times.

Customer Support Associate

QCONNECT, Bengaluru, India

 Jul 2020 – Sep 2021

- Provided technical support for digital banking services.
- Troubleshot hardware/software issues and enhanced security awareness.

EDUCATION

Master in Computer Applications

Amrita Vishwa Vidyapeetham, Coimbatore

🗓 Aug 2022 – Aug 2024 | GPA: 8.5

Bachelor in Computer Applications

Sri Dev Suman Uttarakhand University

🗓 Aug 2016 – Sep 2019 | GPA: 7.3

SKILLS

Programming Languages: Python, C++, SQL, Java (basic)

Data Manipulation and Visualization: Pandas, NumPy, Dask, Vaex, Polars, Matplotlib, Seaborn, Plotly, Tableau

Machine Learning & NLP Frameworks: Scikit-Learn, TensorFlow, Keras, PyTorch, XGBoost, LightGBM, CatBoost, Hugging Face Transformers, MLflow, SpaCy, NLTK

Model Development & Deployment: Deep Learning Architectures, Transfer Learning, Model Evaluation & Tuning, FastAPI, Flask

Version Control and Deployment: Docker, Git, GitHub, CI/CD (GitHub Actions), Kubernetes (basic)

Soft Skills & Methodologies: Root Cause Analysis, Business Problem Scoping, Hypothesis Testing, Data-Driven Decision Making, Cross-Functional Collaboration, Technical Mentoring