AKSHAY JAMBHULKAR

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PROFILE SUMMARY

- Data Scientist specializing in NLP, Time Series and Gen-Al with a postgraduate degree in Data Science and Machine Learning.
- Total 6 years of experience with 3 years of diverse experience applying Data Science and Machine Learning across E-commerce, Al-Ops and the Automotive industry.

EDUCATION

- Post Graduate [PGP- Full time] in Artificial Intelligence & Data Science, Jio Institute [CGPA 9/10]
- BE Mechanical, Pune University [CGPA 7.3/10]

WORK EXPERIANCE

Jio Platforms Limited - Data Scientist

July'2023 - Present

- **Domain Prediction/Classification:** Developed an ML-based pipeline for classifying users text queries into multiple domains for MyJio's (Super-App) search engine. Built a suggestive API using REST architecture, integrating multi-class and multi-label models, which increased CTR by ~20%.
- RAG Chatbot: Developed an advanced RAG-based chatbot leveraging Langchain, open-source embeddings, LLMs, vector databases, and semantic caching, incorporating RAG Fusion and CRAG techniques to optimize MyJio's customer support and improve user experience.
- Spell Check Module: Developed and deployed lightweight spell-check modules for both MyJio and Ajio platforms using Soundex and edit distance-based spell corrections.
- Catalogue Enrichment Pipeline: Developed a Catalogue Enrichment Pipeline, leveraging LLaMA 3.1 and LLaMA 3.2 (Multimodal)
 and a custom prompt library to generate detailed product descriptions, attributes, and Indic/implicit tags via in-context learning,
 enhancing product discoverability and streamlining e-commerce workflows.

L&T Technology Services Limited, Pune - Senior Engineer

Dec'2021 – Sep'2022

- SoC Prediction Models: Developed advanced data science models (Regression and Time Series) to accurately predict battery cells State-of-Charge (SoC) across diverse operating conditions, achieving a 90% prediction accuracy and reducing estimation error by 20% compared to traditional methods.
- EDA: Performed exploratory data analysis to choose the features that will be used for modeling for multiple use cases using matplotlib, seaborn and pandas.

TECOSIM GmbH, Pune - Engineer

Jun'2020-Nov'2021

- **Demand Forecasting:** Developed and implemented advanced time series models for demand forecasting in a retail chain resulting in a 15% reduction in inventory costs.
- Machine Learning POC's: Initiated machine learning projects (POCs) focused on demand forecasting, fostering innovation, and establishing foundational practices within the team.

Equilibrium Solutions Pvt Ltd, Pune - CAE Engineer II

Jul'2017 – Apr'2020

- Worked on multiple CFD simulation projects for battery pack and EV motor thermal simulations to optimize the performance.
- Awarded as the Best Performing Engineer of the year 2019 for delivering outstanding results in executing projects and receiving positive feedback from clients.

POST GRADUATE INTERNSHIP

Jio Platforms (AICoE) – Data Science Intern

Dec'2022 – May'2023

- **Demand Forecasting:** Worked on a forecasting project for Netmeds stores using statistical as well as deep learning models. Used SHAP for key factor analysis to identify and explain the most influential factors in the forecasts.
- Nanyang Technological University, Singapore As a part of Jio Institute's Study Abroad module, completed module on " Data Ethics and Governance" and "Natural Language Processing".

CERTIFICATIONS

- Generative AI with Large Language Models Specialization (Coursera)
- Deeplearning.Al short courses series on Generative Al including:
 - Finetuning LLMs, LangChain for LLM Application Development, Building Systems with the ChatGPT API, Knowledge Graphs for RAG, AI Agents, Multi AI Agent Systems with crewAI.
- Machine learning in Production (Coursera)
- TensorFlow Developer Specialization (Coursera)

SKILLS

- Languages: Python, SQL
- Libraries/Frameworks: Pandas, NumPy, Matplotlib, Seaborn, Keras, TensorFlow, Scikit-Learn, Langchain, PySpark
- NLP & Al: Generative Al, LLMs, Transformers, HuggingFace, Open-Source Models, Fine Tuning, RAG, NLTK, Spacy, Yake
- Machine Learning: Clustering, Time Series Modeling, Classification, Regression, Deep Learning, POCs
- Deployment & MLOps: REST, FastAPI, Airflow, MLflow, RabbitMQ, Docker, Kubernetes, Streamlit, Evidently
- Databases: PostgreSQL, Oracle
- Cloud: Azure DevOps