



SUBHAGATO ADAK

Manager, Data Scientist

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• Mumbai

Summary

Results-driven Product Manager/ Data Science Manager with strong specialization in statistical modeling and advanced NLP techniques to drive strategic data-informed decisions. Experienced in mentoring talent and conveying complex technical concepts to diverse audiences. Consistently recognized for leadership and excellence in GenAI product development, GenAI Product Management, AI Strategy, Governance & Ethics, Scalable AI Solutions, Market Mix Modeling, Statistical Modeling, Algorithm Design, and Business Analytics. Proven Expertise in Leading Cross-Functional Teams and Integrating AI/ML Technologies for high business impact.

SKILLS

Market Mix Modelling • GenAI • CRM • POC • Statistical Analysis • Statistical Modeling • Machine Learning • Deep Learning • Brand Health Track

OpenAI • Claude • Gemini • HuggingFace (Opensource Models) • AWS Model Catalog • GCP Model Garden • Mosaic AI

GitHub • Git Actions • Docker • Steamlit • Power BI • Shiny • MLOps • LLMOps • CI/CD

AWS • GCP • Databricks • Snowflake

Python • R • SQL • PySpark • SAS

PyTorch • TensorFlow • OpenCV

Product Management • Stakeholder Management • Cross Team Collaboration • Project Management • Vendor Management

Experience

Mondelez International

Mumbai, India

Manager, Data Scientist

09/2024 - Present

- Developing Global GenAI strategy, Vendor Assessment and Enterprise Architecture for unified platform of smart assistants.
- Assessed and enhanced digital AI services, boosting smart assistant accuracy by 50% and operate across 200 datasets.
- Spearheaded two analytics products from ideation to production as Product Owner, integrating diverse data sources.
- Championed initiatives that enhanced data-driven decision-making across marketing and operations while serving as the technical lead for the AMEA region for GenAI smart assistants.

Bain & Company

Gurgaon, India

Manager/Lead

01/2023 - 09/2024

- Drove strategic product initiatives by leading brainstorming sessions and development, resulting in the launch of GenAI tools for wealth management and claims transformation that increased customer engagement by 30% for a large investment bank in Singapore and a large insurance company in Australia.
- Employed natural language processing (NLP) methodologies to categorize SKUs in e-commerce, which resulted in a significant increase in operational efficiency for 10 major categories in Americas.
- Mentored and coached over 10 app developers and data engineers on best practices in AI product lifecycle management, enhancing team performance and accelerating project delivery.
- Coordinated weekly cross-departmental sync meetings, facilitating open communication between development, QA, design, and marketing to address blockers and ensure seamless product launches.
- Enhanced team culture by orchestrating regular workshops, retrospectives, and team-building activities, leading to increased productivity and better alignment on product vision.
- Developed and deployed over 15 proofs of concept (POCs) and presented demos as part of proposals to clients. One of these was developed from an IP that I conceived and developed, which won a case for \$15 million.
- Designed GenAI based applications for multiple industries like Travel, Automotive, FMCG, HoReCa, Pharmaceuticals, BFSI (Banks, Finance, Insurance), New & Media, Agriculture.

Experience

NIQ Vadodara, India
Lead Analyst 03/2021 - 12/2022

- Championed the development and launch of an AI-driven Carryover algorithm for a pharmaceutical client, managing a \$300K project budget.
- Communicated complex analytical processes and strategic insights to the client's Data Analytics SVP, aligning product capabilities with key business objectives.
- Managed a cross-functional team for the execution of a \$1 million AI/ML Penetration Model project, delivering ahead of schedule through agile methodologies.
- Optimized market analysis for a global chocolate brand to support a \$12 million quality improvement initiative using Python and Excel.
- Fostered a high-performing team environment, introducing innovative tools that increased pre-modeling phase efficiency by 20%.

Shell Chennai, India
Associate Data Scientist 01/2020 - 03/2021

- Executed a comprehensive root cause analysis initiative, enhancing contact strategy and increasing customer acquisition by 10% across 10 key markets.
- Revamped KPI frameworks by driving cross-functional collaboration with 11 market teams, optimizing CRM analytics and ensuring consistent product performance measurements.
- Facilitated end-to-end A/B testing campaigns in collaboration with vendors and multiple teams, utilizing insights to refine contact strategies and enhance user engagement.
- Influenced contact strategies for 5 principal markets by analyzing emerging COVID-related customer behaviors, improving the product's value proposition.
- Proven track record of successfully implementing AI and ML technologies. Adept at presenting data-centric recommendations and cultivating stakeholder relationships.

Nielsen Vadodara, India
Executive, Advanced Analytics Consulting 04/2018 - 12/2019

- Devised a media mix model for an Entertainment client, driving a cost reduction of 1 billion rupees and a 17% increase in conversion rates.
- Designed and executed a proof of concept utilizing Support Vector Machines, K-Nearest Neighbours, and Regression analyzes, securing a 4.5 million rupee Marketing Mix Modeling project.
- Transformed data integration processes by pioneering an advanced Data Synergy system with an R Shiny user interface for a leading Japanese automobile manufacturer.
- Collaborated on cross-functional initiatives in Marketing Mix Modeling and Media Analytics.
- Instituted a bespoke algorithm that enhanced operational efficiency by 20%, harmonizing Retailer Ledger Data from the Broadcast Audience Research Council.

Additional Experience

Business Brio Kolkāta, India
Trainee Analyst 12/2017 - 03/2018

Role

- Developed and launched an R Shiny-based system for optimizing newspaper inventory and distribution for over 3,000 distributors.
- Improved data processing efficiency by 30% by executing complex queries on datasets using MySQL and R.

Business Vision Kolkāta, India
Marketing Intern 01/2016 - 05/2016

Role

- Improved sales by 5% through comprehensive competitive analysis for strategic positioning.
- Improved customer engagement by 10% by executing demand analysis and crafting comprehensive marketing campaigns.

Tata Steel Jamshedpur, India
IT intern 08/2012 - 07/2013

Role

- Increased ROI by 5% and reduced TCO by 10% through deterministic analysis for optimal efficiency (Capacity Planning).

Birla Institute of Technology, Mesra Ranchi, India
Teaching Assistant 07/2011 - 07/2012

Role

- Increased student project completion rate by 20% by teaching programming courses and supervising lab practicals.

Recent Projects

AI-Driven Wealth Management Engine

Singapore, Singapore

12/2023 - 09/2024

Developed wealth management IP based on GenAI to recommend customer instruments and provide explainability for each of the recommendations. This tool had multiple features from PDF curation, chatbot, news curation, rebalancing techniques.

- Boosted HNI engagement by 30% using a personalized recommendation engine.

Insurance Chatbot

Sydney, Australia

08/2023 - 10/2023

This GenAI based Chatbot resolves the queries from the insurance executives for multiple claims from around 1000 documents in 30 seconds.

- Improved query resolution by 70% and achieved accuracy of 100% on chatbot.

GenAI based Video Analytics Tool

Mumbai, India

08/2023 - 09/2023

This Streamlit application enables users to upload a video file and extract various insights.

- Video Information: Duration, frame rate, and resolution
- Audio Extraction & Transcription: Uses Whisper AI to transcribe speech
- Speaker Diarization: Identifies different speakers using Pyannote
- Speaker Segmentation: Matches transcribed text with identified speakers
- Semantic Search: Retrieves relevant segments using FAISS and OpenAI embeddings
- Video Editing: Adds text overlays and allows merging extracted video clips

Speech to Speech Shopping Assistant

Bangkok, Thailand

06/2023 - 07/2023

A GenAI tool that recommends you product, the mode of communication is speech. You can talk to your shopping assistant

- Enhanced conversion rate by 15% utilizing voice-assisted upselling and cross-selling in the recommendation process.

Education

Rennes School of Business

Rennes, France

Master of Science in Global Business Management

01/2015 - 11/2016

- Completed a Master of Science in Global Business Management.
- Coursework and demonstrating leadership as the top student in the January Cohort.

Birla Institute of Technology, Mesra

Ranchi, India

Master of Engineering in Software

08/2011 - 07/2013

- Completed a Master of Engineering in Software, focusing on advanced software
- Development algorithms and applications

Techno India College of Technology

Kolkāta, India

Bachelor of Technology in Computer Science Engineering

08/2007 - 07/2011

- Completed a Bachelor of Technology in Computer Science Engineering
- Gaining solid foundational knowledge in core computing technologies

Certification

Deep Learning Nanodegree — Udacity

Machine Learning — Coursera, Stanford University

Business Analytics — Data Brio Academy

Personal Projects

Retrieve

Engineered a graph-based Context-Aware Cellular Automata Retrieval system that dynamically models local interactions between document chunks to enhance relevance and context awareness.

Ecosystem

A cutting-edge repository focused on building next-generation agentic frameworks, fine-tuners, knowledge graphs, evaluation systems, and RL-based feedback mechanisms. This repository is a work in progress and serves as an evolving hub for advanced AI-driven autonomous agents and frameworks.

Automatic test case generator

This script scans a given project directory (Project_test_folder/) for Python files, extracts function definitions, and generates pytest unit tests using OpenAI's GPT-4o model. The generated test files are stored in the tests/ directory.

AI Parliament

This framework is designed to tackle complex problems by leveraging a multi-agent architecture with LLM-based reasoning. It dynamically determines the required agent roles (or allows manual specification), instantiates agents, gathers reasoning via hierarchical discussion, aggregates votes and proposals, validates the solution, and produces a final, synthesized answer along with a full transparency report.

Intent Agent

This repository showcases a modular library for multi-level intent classification using MongoDB for storage and various LLM providers (OpenAI, Anthropic Claude, Google Gemini, Hugging Face) for classification. The system supports hierarchical intents (domain -> intent -> sub-intent -> ...) and generates dynamic Python methods for each intent.

Prompt Framework

Prompt Framework is a Python package that provides a set of flexible frameworks for prompt engineering. It allows seamless interchangeability between various frameworks such as RACE, CARE, APE, CREATE, TAG, CREO, RISE, PAIN, COAST, ROSES, and REACT to build sophisticated prompts for language models with different context and task-based structures.

Key Achievements

Frequently Exceeding Expectations

Rated high for performance for annual review 2023 and Mid year review 2024.

Exceeded Expectations

Rated highest for performance in both Nielsen and NielsenIQ during the tenure.

Awards

Expert Consulting Delivery Star of the Month, Dec 2023

Nominated for NielsenIQ North America Analytics Star award 2022

Nominated for Nielsen South Asia Excellence Award for Innovation 2019

Topper, MSC GBM January cohort 2015

Languages

Bengali Native ●●●●●

English Proficient ●●●●●

Hindi Native ●●●●●

Interests

Tabla

 Painting