



VAISHAGH P

Passionate AI & Data Science Engineer

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PROFESSIONAL PROFILE

AI & Data Science Engineer with 4+ years of experience delivering enterprise-scale Generative AI, Machine Learning, and advanced analytics solutions at Hewlett-Packard (HP). Proven expertise across the entire data lifecycle from data ingestion, ETL, and feature engineering to model development, forecasting, MLOps, and production deployment. Led the development of multiple GenAI platforms and ML forecasting systems, including solutions showcased at the Databricks Data + AI Summit 2025 and recognized by HP's CFO and executive leadership. Strong background in LLMs, RAG, NLP, statistical forecasting, cloud-native architectures (AWS, Azure), and CI/CD-driven MLOps, with a track record of transforming complex business problems into scalable, AI-powered products with measurable business impact.

WORK EXPERIENCE

DATA SCIENTIST / AI ENGINEER - HP Inc (Bangalore) (Dec 2021 - Present)

Official Title: Financial Analyst I (Full-time since Apr 2024; Contingent Dec 2021–Mar 2024) - same team & scope

Generative AI & Intelligent Systems:

- Led end-to-end development of the **GenIT Print ELT Reporting Chatbot** an enterprise GenAI solution **showcased at Databricks Data + AI Summit 2025**.
- Recognized by the **CFO** for building an AI chatbot that autonomously analyses financial metrics and produces **executive ready insights**, accelerating decision making.
- Architected **6+ production-grade, cost-optimized GenAI chatbots** using hybrid LLM ecosystem (LLaMA, DBRX, GPT-4/4o/5, o1 series) with **sub 30s response time** and multimodal analytics.
- Designed a **custom AI agent framework** outperforming generic LLM pipelines for enterprise analytics; implemented agents for financial insights, intent routing, structured output, and automation.

Machine Learning Forecasting & Strategic Planning:

- Built end-to-end **revenue & cost forecasting models** for HP Instant Ink using ARIMAX & advanced time-series modelling.
- Developed **subscription enrollee forecasts (Prophet)** supporting demand planning and capacity optimization.
- Core contributor to HP's **Enterprise Business Planning (EBP)** delivering **18-month rolling forecasts** across Print & Personal Systems.
- Built scalable ML frameworks forecasting: Net Revenue, Logistics Cost, Contra, ESC, Vendor Rebates, Warranty & Ops Cost.
- Designed a **printer active vs inactive classification model**, establishing a trusted installed-base intelligence layer used across forecasting, revenue planning, and lifecycle analytics.

KEY HIGHLIGHT

Chatbot Presentation in Databricks Data + AI Summit 2025

- [YouTube](#)
- [Databricks](#)

SKILLS

AI/ML & LLMs:

- Generative AI
- NLP
- RAG
- Sentiment Analysis
- LLAMA 3, GPT, DBRX, MS Copilot
- LangChain
- DSpy

Frameworks:

- HuggingFace
- Ollama
- OpenAI

MLOps & Deployment:

- Databricks
- Auto ML
- CI/CD
- Git
- AWS & Azure

Programming & Tools:

- Python
- SQL
- PySpark
- Power BI
- Power Apps
- Power Automate
- Anaplan
- Machine Learning
- SSIS
- Excel (VBA)
- Power Pivot Modelling
- C#
- HTML, CCS, JS (Frontend)

Advanced NLP, RAG & AI Engineering:

- Built **enterprise-scale RAG pipelines** integrating structured + unstructured data for factual, auditable insights.
- Delivered custom NLP agents (NER, classification, summarization, sentiment) achieving **95%+ accuracy**.
- Implemented **DSPy-based deterministic, schema-driven outputs** enabling downstream workflow integration.
- Built a multilingual customer feedback intelligence platform integrated with **Microsoft Copilot & 100+ languages**.

Data Engineering, MLOps & Cloud Architecture:

- Led full-stack ML architecture ingestion, feature engineering, training, inference, and deployment.
- Built high performance ETL pipelines using **Python, PySpark, SQL, Databricks** for large scale enterprise data.
- Led **Unity Catalog migration from Redshift** for 5+ production projects, improving governance, security & CI/CD.
- Deployed **AWS based scalable chatbot infrastructure (EC2)** integrated across enterprise datasets.

Enterprise Analytics, BI & Executive Reporting:

- Led Developed **15+ enterprise Power BI dashboards** with automated ingestion and refresh workflows.
- Built a **150+ page automated printer usage executive report** (Databricks + Airflow + Azure Pipelines + GenAI narratives) consumed by CEO executive staff and referenced in leadership forums.

AI Products & Web Analytics Platforms:

- Designed & built **Org Chart Analyzer** web app with GenAI chatbot for workforce & org-layer analytics.
- Developed **full-stack AI chat platform** (Flask + HTML/CSS/JS) with features including response monitoring, data transparency, favourites, export (PDF/Excel/PPT), and feedback loop.

Process Automation & Operational Efficiency:

- Automated finance & customer support workflows improving accuracy, auditability, and turnaround times.
- Built PR workflow automation reducing processing time from **~10 days to <8 hours**.
- Developed Selenium based automation for **JV postings, web scraping, and operational reporting**.
- Created Excel automation dashboards for accruals, commissions, and PO tracking.

EDUCATION

M-TECH IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

- (2024, WILP - Present) BITS Pilani

BACHELOR OF TECHNOLOGY (HONS) IN MECHANICAL ENGINEERING

- 9.02 cgpa (2021) APJ Abdul Kalam Technological University

SOFT SKILLS

- Leadership
- Problem-Solving
- Project Management
- Communication

CERTIFICATIONS

- Google Data Analytics Professional Certification
- Power Bi Essential Training
- Python (Advanced Pandas) Essential Training
- Microsoft Sql Server Essential Training
- C# And .Net Essential Training
- Git Essential Training
- Selenium Essential Training
- AI Agent Fundamentals

LANGUAGE SKILLS

- English (Proficient)
- Hindi (Intermediate)
- Tamil (Intermediate)
- Malayalam (Native)

INTERESTS

- Generative AI
- Data Science
- Learning new technologies
- Reading

ADDRESS

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