NEELAM HASWANTH

AI/ML & Azure Data Engineer

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PROFESSIONAL SUMMARY

AI/ML & Azure Data Engineer with hands-on experience designing, deploying, and optimizing Generative AI and Machine Learning solutions in enterprise environments. Skilled in developing LLM-based systems, RAG pipelines, and chatbots using Python, LangChain, and FAISS. Strong background in Azure Data Engineering—building secure, scalable ETL pipelines with ADF, Databricks, and PySpark. Experienced in taking ML/GenAI PoCs into production with CI/CD, MLOps, and compliance frameworks.

CORE TECHNICAL SKILLS

AI & ML: Python, Scikit-learn, NumPy, Pandas, Matplotlib, TensorFlow, PyTorch, LLaMA, GPT, LangChain, LlamaIndex, RAG Pipelines, LLM Fine-tuning, Prompt Engineering
Azure Data Engineering: Azure ML Studio, Azure Data Factory, Databricks, PySpark, Delta Lake, Synapse, Blob Storage, Azure Cognitive Search
MLOps & Deployment: Azure DevOps, CI/CD, MLflow, Model Versioning, Monitoring, Retraining, Containerization (Docker)
Data Architecture: Medallion Architecture, Lakehouse Design, Schema Evolution, Data Governance & Compliance
Tools & Frameworks: Power BI, GitHub, JIRA, APIs (REST/SOAP), Kafka (learning)
Soft Skills: Collaboration, Analytical Thinking, Communication, Problem Solving

PROFESSIONAL EXPERIENCE

Azure Data Engineer – DatafactZ, Northville, MI | Jul 2023 – Present

- Designed and deployed automated ML and data pipelines using Azure Data Factory, Databricks, and PySpark.
- Integrated Azure ML models with Databricks workflows for fraud analytics and anomaly detection use cases.
- Developed and deployed RAG-based systems leveraging Azure Cognitive Search, embeddings, and vector databases.
- Built secure, production-ready ML pipelines using CI/CD in Azure DevOps with governance and version control.
- Collaborated with data scientists and business teams to transition GenAI PoCs into production-grade solutions.

Data Architect (Databricks) – DatafactZ, Hyderabad, India | Jul 2021 – Aug 2022

- Architected ML-ready medallion lakehouse frameworks for structured and unstructured data.
- Developed metadata-driven pipelines using Databricks Auto Loader, Kafka, and ADF for batch and streaming workloads.
- Implemented governance, lineage, and PII compliance for enterprise-grade data systems.

- Optimized schema evolution and data ingestion logic to support scalable ML training and inference.
- Deployed and monitored Databricks CI/CD workflows via Azure DevOps and GitHub Actions.

PROJECT HIGHLIGHTS

AI-Powered Fraud Detection POC – Developed a secure, on-prem LLM-based fraud detection assistant using LangChain and FAISS. Integrated retrieval-augmented generation (RAG) for contextual responses and built model guardrails for audit compliance.

AI-Powered Job Portal – Built an end-to-end GenAI system using Azure OpenAI, LangChain, and FAISS for semantic job matching and resume parsing. Deployed serverless architecture with CI/CD pipelines.

Product Review Sentiment Analyzer – Implemented NLP pipelines using Hugging Face Transformers and PySpark in Databricks, enabling real-time sentiment insights from customer data.

Scalable Data Lakehouse & Power BI – Architected a Databricks Delta Lake solution integrated with Power BI and Unity Catalog for governed real-time reporting.

EDUCATION

Master of Science in Computer Science, The University of Texas at Arlington, TX | May 2024