Ashish Verma

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Machine Learning & Data Engineering | 14+ YOE | GCP Certified | Fraud Detection | Real-Time AI | Deep Learning | RAG Systems

SUMMARY

Seasoned ML & Data Engineering professional with 14+ years of experience designing and deploying scalable AI/ML solutions, leading cross-functional teams, and automating real-time data pipelines. Certified in Google Cloud and Azure. Proven success in NLP, anomaly detection, and LLM-based solutions for fintech and enterprise systems.

TECHNICAL SKILLS

• Machine Learning: Regression, Classification, Clustering, DNNs, LLMs, RAG, NLP
• ML Tools: TensorFlow, PyTorch, Tensorlfow,Scikit-learn, Spark ML
• Data Engineering: Apache Spark, Kafka, Databricks, Airflow, BigQuery, Pub/Sub
• DevOps & Deployment: Docker, Kubernetes, CI/CD, Jenkins, Git
• Visualization: Tableau, Power BI, Plotly, Seaborn
• Languages: Python,C++,CUDA, SQL, R
• Cloud: Google Cloud (GCP) and AWS

EDUCATION

Old Dominion University, Norfolk, VA
Master of Science in Data Science & Analytics, GPA: 3.85 (2023 – 2025)
Relevant Coursework: Deep Learning, NLP, Machine Learning at Scale, Bayesian Methods

Kanpur University, India
Bachelor of Technology in Computer Science and Engineering, CGPA: 9.0 (2006 – 2010)

CERTIFICATIONS & PATENTS

- GCP Professional ML Engineer (2024),
- Azure Fundamentals (2023)
- Patent-AI Fraud Investigation Assistant (PayPal)
- Patent-Cross-Border Payment Navigator (PayPal)

PROFESSIONAL EXPERIENCE

Machine Learning Engineer | *PayPal | Feb 2022 – Present*

- Led multiple AI initiatives, aligning ML architecture with strategic business goals.
- Built and deployed real-time fraud detection system using Spark Streaming, Pub/Sub, and GCP AI stack, reducing detection time by 40%.
- Implemented NLP-driven RAG system using LangChain and LlamaIndex, improving customer insight extraction by 30%.
- Integrated LLM-powered OpenAPI generation tools, boosting engineering productivity by 30%.
- Mentored teams across engineering and analytics to align AI adoption with delivery goals.

Data Engineer | *KForce Inc | Feb 2020 – Feb 2022*

- Built time-series forecasting models using TensorFlow, Spark ML, and PyTorch, improving forecast accuracy by 30%.
- Designed ingestion pipelines and orchestration workflows using GCP + Airflow for real-time AI apps.
- Developed containerized microservices using Docker, Kubernetes, and deployed via CI/CD pipelines.
- Established feature store using PySpark + BigQuery, streamlining model deployment lifecycle.

Senior Software Engineer | *Cognizant Technology | Mar 2014 – Feb 2020*

- Deployed classification models for fraud detection in finance systems using Scikit-learn and statistical analysis.
- Redesigned Spark-based ETL pipelines, reducing processing time and cost by 20%.
- Led real-time + batch ingestion integration using Kafka and GCP Dataflow.
- Worked with MongoDB and Cassandra for scalable document-based systems.

Software Engineer | *Wipro Technologies | Nov 2010 – Mar 2014*

- Developed enterprise data warehouse pipelines using PL/SQL and automated reporting flows.
- Reduced manual reporting by 50% via Python & Shell-based automation.

PROJECT HIGHLIGHTS

- Real-Time Anomaly Detection System: Designed with VAE-BiLSTM/CNN-BiLSTM models in TensorFlow to detect network anomalies, cutting response time by 40%.
- Bitcoin Forecasting: Built Spark-ML + PyTorch pipelines to predict BTC trends, achieving 18% better accuracy.
- PM2.5 Exposure Study: Led analysis on long-term air pollution exposure impact using statistical tests and visual storytelling.