Geetha Reddy Bommareddy

Senior ML Engineer | GenAI & MLOps

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Portfolio
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Denver, Colorado

AI/ML Engineer with around 5 years of experience designing, deploying, and scaling production-grade machine learning and NLP systems in financial services and risk analytics. Expertise in fraud detection, real-time inference, feature engineering, MLOps, deep learning, LLM-powered (RAG) applications on cloud-native ML pipelines.

Core Skills

Machine Learning & GenAI: XGBoost, LightGBM, CatBoost, Scikit-learn, Gradient Boosting, Decision Trees, SVM, KNN, Time Series Forecasting (Prophet, ARIMA), LangChain, RAG, AWS Bedrock (Claude, Titan), GPT, Hugging Face Transformers, spaCy, NLTK, BERT Engineering, Prompt Engineering, Vector Databases (Pinecone, FAISS)

Deep Leaning & AI Modeling: PyTorch Lightning, TensorFlow, CNNs, RNNs, LSTMs, Transformers

MLOps: MLflow, Docker, Kubernetes, CI/CD (GitHub Actions, Jenkins), Model Deployment & Monitoring

Automation & Orchestration: n8n, Airflow, Lambda (event-driven workflows)

Cloud Platforms & Data Platforms: AWS (SageMaker, EC2, S3, Glue), Azure ML, Databricks, Snowflake, ETL & ELT Pipeline, SQL, NoSQL (MongoDB, DynamoDB), Tableau, Power BI, Plotly, Matplotlib, Seaborn, Dash, Advanced Excel

Programming & Development: Python, Pandas, NumPy, HTML, CSS, JavaScript, PyTorch, FastAPI, Flask, Git, GitHub

Certificates: AWS CERTIFIED DATA ENGINEER – ASSOCIATE

Work Experience

AI/ML Engineer   Jan 2024 - Present

JP Morgan Chase & Co. | *Atlanta, GA*

• Built n8n-driven alert automation to route fraud/model-monitoring signals to Slack and Jira with SLA tracking; deployed real-time fraud and risk scoring models using XGBoost and PyTorch, processing 100K+ transactions/day and reducing inference latency from 9s to <3s.

• Developed streaming ML pipelines with PySpark, Kafka, and AWS, enabling continuous feature engineering and real-time alerting for fraud operations.

• Designed LLM-powered knowledge assistants using GPT, Hugging Face, FAISS and Retrieval-Augmented Generation (RAG) on AWS, leveraging AWS Bedrock (Claude) to summarize regulatory and investigation data, supporting fraud analysts and reducing research cycles to same-day turnaround.

• Productionized ML services using Docker, Kubernetes (EKS), and SageMaker, implementing model versioning, monitoring, and explainability (SHAP) in regulated environments.

Data Engineer - (ML & Analytics)   May 2020 - Jul 2022

LTIMindtree | *India*

• Developed anomaly detection and fraud models using Autoencoders and Isolation Forest, identifying 8,200 + suspicious events per quarter and improving regulatory compliance.

• Built NLP pipelines with Hugging Face and spaCy to classify and summarize customer compliants, cutting manual review time from 4 hrs to 30 mins

• Implemented Time-series forecasting models (LSTM, ARIMA, Prophet) to predict cashflows across 120+ accounts, improving liquidity planning accuracy.

• Automated ML pipelines and MLOps workflows using n8n (to trigger dataset validation), Databricks, MLflow, Docker and AWS reducing data preparation effort by 100+ hours/month.

Education

Master of Science in Information Systems – Trine University   Aug 2022- Dec 2023

(Relevant Coursework: Machine Learning, Deep Learning, Data Mining, Cloud Computing, Advanced Analytics)