

# Geetha Reddy Bommareddy

Senior ML Engineer | GenAI & MLOps

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Atlanta, Georgia

AI/ML Engineer with 4+ 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 (Retrieval-Augmented Generation), GPT, Hugging Face Transformers, spaCy, NLTK, BERT Engineering, Prompt Engineering, Vector Databases (Pinecone, FAISS)

**Deep Learning & 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) 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 complaints, 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)**