

# TEJA SUBRAHMANYAM

AI/ML Engineer

USA | +1 (913) 742-0069 | Email: [subrahmanyamts@careerattainment.com](mailto:subrahmanyamts@careerattainment.com) | <http://www.linkedin.com/in/tssubrahmanyam>

## SUMMARY

**Results-driven and innovative AI/ML Engineer with 4+ years** of hands-on experience designing, developing, and deploying machine learning models and data-driven solutions across **healthcare, fintech and other domains**. Skilled in building end-to-end **ML pipelines, MLOps, model optimization, and real-time inference systems**. Proficient in **Python, TensorFlow, PyTorch, AWS, Spark**, and containerization technologies. Adept at collaborating with cross-functional teams in Agile environments to deliver scalable and intelligent systems that solve real-world problems and improve business KPIs.

## PROFESSIONAL EXPERIENCE

AI/ML Developer | Secure Technical Support LLC | USA

July 2024 – Present

- Developed predictive models** (XGBoost, Random Forest, Logistic Regression) using Python and Scikit-learn on patient EHR and claims data (~10TB), reducing 30-day hospital readmission by **18%**, improving clinical intervention efficiency.
- Engineered data pipelines** using PySpark and AWS Glue to ingest and transform multi-source structured/unstructured data; improved ETL throughput by **40%** and ensured data freshness for model training workflows.
- Built and deployed NLP-based models** using spaCy, BERT, and Transformers to extract ICD codes and key terms from physician notes, increasing automated medical coding accuracy by **22%** and claim cycle speed by **3 days**.
- Containerized ML models** with Docker and deployed on AWS SageMaker endpoints via Lambda and API Gateway, enabling **real-time fraud detection inference** with latency under 200ms.
- Orchestrated model training pipelines** using Apache Airflow and MLflow with integrated versioning, experiment tracking, and retraining triggers, reducing model drift and downtime by **45%**.
- Conducted feature engineering** using SQL, pandas, and domain-driven feature selection techniques, enhancing AUC-ROC of risk stratification models from **0.72 to 0.89**.
- Implemented data quality checks** and automated validations with Great Expectations, cutting preprocessing errors by **35%** and supporting compliance for HIPAA and SOC2 requirements.
- Collaborated with cross-functional teams** (Data Engineering, Product, Compliance) in Agile sprints, leading sprint demos and producing stakeholder documentation that improved model interpretability and regulatory audit readiness.

Machine Learning Engineer | Capgemini | India

March 2019 – July 2022

- Built anomaly detection models** (Isolation Forest, Autoencoders) in TensorFlow/Keras for fraud detection on credit card transaction datasets, decreasing false positives by **28%** and saving over **\$3M annually** in fraud loss.
- Designed feature pipelines** using Python (FeatureTools, pandas) and SQL to process behavioral and transactional data; model training cycles accelerated by **35%** through reusable modular design.
- Developed a recommender system** using Matrix Factorization (SVD) and collaborative filtering on customer interaction data, boosting cross-product recommendations and customer engagement by **17%**.
- Applied NLP models** (BERT, LSTM) using Hugging Face Transformers to perform sentiment classification on customer feedback and call center transcripts, informing service improvements that raised satisfaction by **19%**.
- Containerized ML services** with FastAPI and deployed via Azure Kubernetes Service (AKS), achieving scalability to handle over **1000 concurrent API requests/sec** with 99.9% uptime.
- Implemented time-series forecasting models** using Facebook Prophet and LSTM networks to predict payment defaults, improving forecast accuracy by **20%** and reducing collection overhead.
- Integrated CI/CD pipelines** with GitHub Actions and Azure DevOps to automate ML deployments, cutting manual errors by **60%** and enabling **daily production pushes**.
- Ensured fairness and transparency** in model outputs by incorporating SHAP and LIME explainability tools; supported regulatory reviews and promoted responsible AI practices across finance operations.

## TECHNICAL SKILLS

- Programming Languages:** Python, Java, C++, C#, JavaScript, SQL, HTML/CSS
- Machine Learning:** Scikit-learn, TensorFlow, PyTorch, XGBoost, LightGBM
- Deep Learning:** CNN, RNN, LSTM, GANs, Transformers, YOLO
- NLP:** NLTK, spaCy, Hugging Face Transformers, BERT, GPT-4
- Computer Vision:** OpenCV, YOLOv5, MediaPipe
- Cloud Platforms:** AWS (SageMaker, EC2, S3), GCP (Vertex AI, BigQuery), Azure ML
- Big Data & Streaming:** Apache Spark, Hadoop, Kafka, Kinesis
- MLOps:** MLflow, DVC, Airflow, Docker, Kubernetes, CI/CD, GitHub Actions
- Frameworks & Tools:** FastAPI, Flask, Git, Jenkins, JIRA, Postman
- Databases:** PostgreSQL, MongoDB, MySQL, Redis
- Visualization:** Tableau, Power BI, Matplotlib, Seaborn
- CI/CD:** Docker, Kubernetes, Jenkins, Shell Scripting

## CERTIFICATIONS

- AWS Certified Solutions Architect – Associate (SAA-C03)
- Microsoft Azure Fundamentals (AZ-900)
- Microsoft AI Fundamentals (AI-900)
- Machine Learning Specialization (Stanford and DeepLearning.AI)
- Train and fine-tune LLMs for Production (Active Loop)
- DP-100: Designing and Implementing a Data Science Solution on Azure

## EDUCATION

- Masters of Science in Computer Science

University of Central Missouri, MO, USA

May 2024
- Bachelors of Technology in Electrical and Electronics Engineering

India Andhra University, India

March 2019