Smit Patel

AI/ML Engineer

IL | **708-232-3667** | **smit@itjobinbox.com** | **PORTFOLIO**

SUMMARY:

AI/ML Engineer with 3+ years of experience building and deploying production ML systems end-to-end. Delivered models for clinical risk scoring, NLP from medical notes, anomaly detection, churn prediction, recommender systems, and time-series forecasting. Strong in Python, XGBoost, BERT, CNNs, LSTM, LightGBM, Docker, FastAPI, SageMaker, and MLflow. Known for shipping solutions that reduce manual work and improve decision accuracy.

SKILLS:

Methodology: SDLC, Agile, Waterfall
Languages: Python, R, Java, C++, SQL
ML & DL Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras, XGBoost, LightGBM
LLMs & Generative AI: GPT-3, GPT-4, Claude, LangChain, Prompt Engineering, RAG
Data Processing and Analysis: NumPy, Pandas, SciPy, Matplotlib, Seaborn
Deep Learning: Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Long Short-Term Memory Networks, (LSTM), Generative Adversarial Networks (GAN)
NLP & Transformers: Hugging Face, BERT, T5, SpaCy, NLTK, Sentiment Analysis, Summarization
MLOps & Deployment: MLflow, Docker, Kubernetes, FastAPI, Flask, Airflow, REST APIs, CI/CD, Vertex AI, Model Monitoring, Feature Store
Cloud Platforms: AWS (SageMaker, Lambda, EC2), GCP (AI Platform, BigQuery), Azure ML
Big Data & Processing: Apache Spark, Dask, Hadoop, Apache Kafka, Snowflake
Databases: MySQL, PostgreSQL, MongoDB, Redis
Visualization & BI: Tableau, Power BI, Excel, Matplotlib, Seaborn
Version Control: Git, GitHub, GitLab, Bitbucket

EDUCATION:

Master's in Data Science **Nov 2023**
DePaul University, Chicago, IL
Bachelor of Computer Engineering **May 2021**
Charotar University of Science and Technology

EXPERIENCE:

Cigna, IL | June 2023 – Current | AI/ML Engineer

- Designed and deployed an ML pipeline in collaboration with clinicians and data engineers using Python (Pandas, Scikit-learn) and XGBoost to predict patient readmission risks on 5M+ claims, improving hospital resource allocation and reducing readmission rates by 15%.
- Developed NLP models using BERT and GPT-based transformers for medical text extraction (diagnoses, medications, and procedures) from unstructured EHR data, reducing manual data entry time by 40%.
- Built anomaly detection models using unsupervised learning (Isolation Forest, Autoencoders) and integrated them into Cigna's claim system via Flask APIs, reducing fraudulent claim cases by 20%.
- Engineered a time-series forecasting framework using LSTMs and Prophet for predicting patient health deterioration trends, enabling proactive care interventions.
- Streamlined model lifecycle using MLflow, Docker, and AWS SageMaker; implemented CI/CD with GitHub Actions and Prometheus-based monitoring for real-time model health tracking.
- Designed interactive dashboards using Tableau and Power BI for executives to visualize patient outcomes, cost efficiency, and ML model KPIs across business units.

Infinite Infolab, India | July 2020 - Aug 2021 | ML Engineer

- Built churn prediction model analyzing 250K+ customer records with LightGBM, improving retention campaign targeting accuracy by 22%.
- Developed personalized recommender systems using collaborative and content-based filtering, increasing user engagement and cross-sell conversions by 18%.
- Created and fine-tuned CNN-based image classification and object detection models with TensorFlow and PyTorch, achieving 92%+ model accuracy on real-world datasets.
- Designed robust time-series forecasting solutions using LSTMs, ARIMA, and Prophet for sales prediction, improving forecast reliability by 15–20% and enabling data-driven inventory planning.
- Deployed end-to-end ML pipelines with Docker and FastAPI for production-grade inference, reducing model latency by 35% and supporting scalable performance under heavy traffic.
- Conducted A/B testing and hyperparameter optimization using Bayesian search, improving model precision and recall metrics by 10% on average.
- Delivered actionable insights via interactive dashboards and EDA visualizations in Plotly and Seaborn, helping business teams accelerate decision-making and identify emerging trends.