Harun | ML Engineer

+1 (703) 957-9103 | contact.harun0551@gmail.com | Linkedin | GitHub | Portfolio

SUMMARY

Machine Learning Engineer with 2+ years of experience building ML and NLP solutions that drive measurable business outcomes. Proven track record improving conversions by 17% and forecast accuracy by 23%. Experienced in deploying scalable ML pipelines and models using AWS, Airflow, and modern DL/NLP architectures.

TECHNICAL SKILLS

- **Programming & Data**: Python, SQL, C#, .Net Framework, JavaScript,
- **Data Visualization & Reporting:** Pandas, NumPy, Scikit-learn**,** Matplotlib, Seaborn, Power BI, Tableau
- **Machine Learning:** Supervised Learning (Regression, Classification), Unsupervised Learning (Clustering: K-Means, DBSCAN), Model Evaluation Metrics (Accuracy, Precision, Recall, F1, ROC-AUC)
- **Deep Learning:** CNN (Images), RNN/LSTM (Time-Series), Transformers (NLP/Text)
- **NLP & Generative AI:** Hugging Face Transformers, BERT/GPT Models, Large Language Models (LLMs).
- **Deployment & MLOps:** Flask / FastAPI (REST API), Git/GitHub, Docker, MLflow / Weights & Biases, Airflow / Prefect (pipelines)
- **Cloud & Edge Deployment:** AWS SageMaker / EC2 / S3, GCP, Azure basics, TensorFlow Lite, ONNX, Serverless (Lambda)
- **Mathematics & Statistics:** Probability, Linear Algebra, Statistics, Optimization (Gradient Descent), Hypothesis Testing
- **AI Explainability & Ethics:** SHAP, LIME, Bias Detection

PROFESSIONAL EXPERIENCE

Etsy, NY, USA **Jan 2025 – Sept 2025**

ML Engineer - Contract

- Heightened purchase conversions 17% by deploying recommendation models on AWS SageMaker integrated into live customer personalization systems.
- Reduced bounce rates 14% by applying Transformer-based NLP models (BERT, GPT) to improve search accuracy and discovery relevance.
- Decreased deployment cycle time 40% through end-to-end automation of ML pipelines using Airflow, MLflow, and Docker orchestration.
- Enhanced transparency of deployed models by integrating SHAP and LIME explainability, strengthening trust and compliance across regulated environments.
- Improved real-time inference speed 28% by optimizing scalable APIs, enabling faster predictions during peak traffic across ecommerce platforms.
- Delivered measurable 11% uplift in user engagement by designing and validating A/B tests for search and recommendation engines.
- Maintained predictive performance above 90% accuracy by monitoring drift and retraining models using automated MLflow pipelines.
- Accelerated ML adoption by integrating engineered models directly into production applications used daily by cross-functional business stakeholders.

Fractal Analytics **Mar 2021 - Jun 2023**

Junior ML Engineer - Full Time

- Delivered 92%+ model accuracy by developing regression, classification, and clustering solutions for large-scale healthcare and retail datasets.
- Amplified forecast precision 23% by designing CNN-based image analytics and LSTM time-series models for enterprise supply chain optimization.
- Reduced latency 35% by containerizing ML APIs with Flask, FastAPI, and Docker for scalable production implementations.
- Streamlined workflows by automating preprocessing, training, and retraining tasks with Airflow and Prefect, reducing manual intervention significantly.
- Boosted model robustness by engineering domain-specific features across structured and unstructured datasets for diverse client projects.
- Validated predictive reliability by applying metrics such as precision, recall, F1, and ROC-AUC across all deployed models.
- Strengthened client outcomes by delivering complete ML solutions collaboratively with engineers, analysts, and business stakeholders across industries.

EDUCATION

Master's in information systems and technologies — Aug 2023 – May 2025

Bachelor of Technology in Computer Science and Engineering — June 2017 – Dec 2021

CERTIFICATION

Machine Learning Specialization - Coursera (Andrew Ng, DeepLearning.AI)
Deep learning: Getting Started – LinkedIn Learning (Kumaran Ponnambalam)
AWS Certified Cloud Practitioner

PROJECTS

Neural Language Model from First Principles **Jul 2025 - Aug 2025**

- Engineered Transformer building blocks in PyTorch-attention, feed-forward layers, and positional encodings-to construct a character/token generation model.
- Increased model throughput and accuracy using mini-batch training, cross-entropy objective, gradient backprop, and mixed-precision training for memory optimization.

X (Twitter) Opinion Classification System **Jan 2025 - Feb 2025**

- Developed a full-stack sentiment analysis workflow, including cleaning raw tweets, vectorization, model training, and deployment in a web interface.
- Achieved 80% model accuracy via systematic parameter tuning and enhanced preprocessing strategies such as stemming/tokenization and feature selection.

Diabetes Risk Trends - Exploratory Insights Project **Nov 2024 - Dec 2024**

- Conducted feature exploration and statistical profiling on diabetes records to extract influential predictors for downstream ML models.
- Built a dynamic Streamlit dashboard enabling interactive visualization of correlations, distribution patterns, and risk indicators for stakeholders.