Irtaqa Naveed

Machine Learning Engineer | Data Scientist | AI Specialist

Islamabad, Pakistan irtaqanaveed07@protonmail.com
linkedin.com/in/irtaqa-naveed GitHub: Irtaqa007-dev

Open to relocation globally — Seeking remote or on-site ML/AI opportunities

Professional Summary

Machine Learning Engineer with 7+ years of applied experience in advanced data science, deep learning, and computer vision, with a strong emphasis on end-to-end ML pipelines, real-time analytics, and cloud deployment. Skilled in deploying models from research to production, working across Python, PyTorch, TensorFlow, and CUDA. Experienced in deploying models from Jupyter Notebooks to production using pipelines and DevOps best practices. Proven track record in object detection, image classification, and model lifecycle management. Hands-on with Linux, Docker, Kafka, ELK Stack (learning), and cloud platforms including AWS. A fast learner with a passion for building impactful AI solutions. Ready for cross-functional collaboration in product-focused teams.

Technical Skills

Languages: Python, SQL, C++, R (basic), Scala (learning)
Frameworks: PyTorch, TensorFlow, Keras, Scikit-learn, FastAPI
Tools: Jupyter Notebooks, OpenCV, Docker, Git, MLflow, Apache Kafka, ELK Stack (familiarizing)
Cloud / Infrastructure: AWS (S3, EC2, SageMaker), CI/CD, CUDA, Linux Shell
Databases: MySQL, Oracle, Milvus
Visualization / Analysis: Pandas, NumPy, Matplotlib, Seaborn
Development Methodologies: Agile, Scrum

Key Projects

SpaceX Falcon 9 Landing Prediction
Built SVM-based model for rocket landing prediction using web-scraped datasets. Applied Pandas for EDA and Matplotlib for visualization.

AI-Based Traffic Violation Detection System
Real-time computer vision system using YOLOv3 for vehicle and violation detection. Integrated with OpenCV and deployed pipeline for live video feeds.

Accident Prevention System for Motorways
Embedded vision-based obstacle detection system using C++, OpenCV, and Arduino for emergency braking assistance.

Professional Experience

Machine Learning Engineer *Rapidev, Islamabad, Pakistan*
Aug 2024 – Dec 2024

- Built real-time video analytics using ArcFace, RetinaFace, and Milvus for facial recognition.
- Designed ML pipelines with hyperparameter tuning, versioning, and experiment tracking.
- Reduced compute usage 60% via SSIM-based frame deduplication.
- Developed FastAPI-based inference services; containerized and deployed on AWS.
- Implemented distributed training using Ray; improved training throughput.

Commissioned Officer – ML Engineer *Pakistan Air Force*
Oct 2017 – Jul 2024

- Built CNN and object detection models for logistics and surveillance.
- Managed ML pipeline deployments with Docker and CI/CD workflows.
- Deployed models in fault-tolerant systems on AWS cloud.
- Collaborated on labeling pipelines and annotation QA tools.
- Produced analytical dashboards using Pandas, SQL, and Matplotlib.
- Participated in Agile/Scrum-based development cycles with cross-functional teams.

Education

MS Robotics and Intelligent Machines NUST, Islamabad
Sep 2016 – May 2020

BS Software Engineering UET, Taxila
Sep 2011 – Aug 2015

Certifications

- IBM Data Science Professional Certificate – 2024
- Supervised ML: Regression and Classification (Deeplearning.ai) – 2024
- PyTorch: Getting Started (CognitiveClass.ai) – 2024
- Crash Course on Python (Google) – 2024

Honors and Awards

- IBM Master the Mainframe – 2019
- NUST High Achiever's Award – 2020
- Gold Medalist – 2020

Languages

English: Fluent (C1)
Urdu: Native