Khanpur , District Rahim Yar Khan , Panjab , Pakistan
aroshaamin0@gmail.com 0302-152549

with expertise in Machine Learning Deep Learning and . Passionate about building end-to-end, production-ready ML systems and solving real-world problems through data. Skilled in data preprocessing, feature engineering, model training, evaluation, deployment, and monitoring. Experienced in projects across time-series forecasting, recommender systems, and NLP. Proficient with , , .
Open to opportunities as an ML Engineer to deliver scalable and impactful AI solutions.

Developed an end-to-end time series forecasting system using

for data preprocessing, feature engineering, and evaluation,
for hyperparameter tuning.

for real-time forecasting insights.

Designed an end-to-end ML pipeline for rockburst prediction using
, and

Implemented
and monitoring.

Integrated for real-time sensor data logging and .

Built an to detect structural anomalies from sensor data.

Applied Optuna-based hyperparameter tuning for performance optimization.

Developed interactive Streamlit dashboards and for monitoring.

Implemented a using vector similarity.

Designed a simple, to recommend movies.

Applied preprocessing, feature engineering, and cosine similarity with Scikit-learn.

: Python, SQL, C++

Supervised & Unsupervised ML, Deep Learning (DL), Time Series Forecasting, Recommender Systems, Natural Language Processing (NLP), Feature Engineering, Model Evaluation, Hyperparameter Tuning (Optuna, GridSearchCV)

Docker, Airflow, MLflow, FastAPI, Streamlit, CI/CD, InfluxDB, Model Retraining & Monitoring

Exploratory Data Analysis (EDA), Data Preprocessing, Data Visualization, Statistical Analysis

Jupyter Notebook, PyCharm, Visual Studio Code, Git/GitHub, Power BI

Scikit-learn, TensorFlow, PyTorch, XGBoost, LightGBM, Pandas, NumPy, Matplotlib, Seaborn

Python, SQL, C++, Machine Learning, Deep Learning, MLOps, Time Series Forecasting, Recommender Systems, NLP, Feature Engineering, Hyperparameter Tuning, Optuna, GridSearchCV, Docker, Airflow, MLflow, FastAPI, Streamlit, CI/CD, InfluxDB, EDA, Data Visualization, Power BI, Jupyter, PyCharm, VS Code, Git, Scikit-learn, TensorFlow, PyTorch, XGBoost, LightGBM, Pandas, NumPy, Matplotlib, Seaborn

Built an for forecasting monthly birth rates.

Designed pipelines for data preprocessing, feature engineering, evaluation, and hyperparameter tuning

Deployed an for real-time forecasting.

Developed a rockburst prediction system using ensembling, stacking, and Optuna optimization.

Implemented for

for real-time sensor logging and human feedback loops.

Designed for anomaly detection in structural data.
Applied Optuna-based hyperparameter tuning for performance optimization.
Created Streamlit dashboards and for monitoring insights.

Implemented a using vector similarity and cosine distance.
Built a user-friendly Streamlit interface to recommend movies.
Semantic Book Recommender System
Created a semantic search-based book recommender using embeddings, FAISS, and LangChain.
Enhanced recommendations with text preprocessing and similarity scoring.

Built a spam detection model using NLP preprocessing and ML algorithms.
Applied feature extraction (TF-IDF) and classification
.

Conducted EDA & visualization of retail sales trends with
Built a .

Applied to segment customers.
Evaluated clustering with
Visualized customer segments for actionable insights.

Trained a to classify (MNIST dataset).
Achieved strong accuracy with

Developed an for stock price forecasting.
Preprocessed time series data with and scaling.

Analyzed intern .
Built a classification model (for dropout prediction.

The Islamia University of Bahawalpur (2022 – 2026) CGPA: 3.92 / 4.00

Alpine Degree College, Khanpur (2019 – 2021) Marks: 1053 / 1100

– DataCamp

– DataCamp

– DataCamp

– DeepLearning.AI

– DeepLearning.AI

– DeepLearning.AI

– (via Kaggle)

(3+ years)

: Joint Secretary, Press Secretary , General Secretary : Organized workshops, hosted events, and managed logistics and public communication

Participated in departmental-level sports and games regularly