

Mohammad Ibrahim Hossain

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SKILLS

Machine Learning | Supervised & Unsupervised Learning, Model Selection, Hyperparameter Tuning, Ensemble Methods

Data Science | Data Cleaning, Feature Engineering, EDA, Statistical Analysis, Data Visualization

MLOps | CI/CD, Docker, Kubernetes, AWS SageMaker, Version Control, Automated Retraining

Tools & Libraries | Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn, Plotly, Git, DVC, MLflow

Programming Languages | Python, SQL

Languages

Communication Languages | English, Bangla

Programming

Languages | Python, SQL

EDUCATION

Badda Alatusnessa High School, Badda, Dhaka — SSC

January 2013 - April 2023

Completed Secondary School Certificate (SSC) with a focus on academic excellence and active participation in extracurricular activities.

Govt. Bangla College, Mirpur-1, Dhaka — HSC

August 2023 - Running

I am pursuing a Higher Secondary Certificate (HSC), building a strong foundation in core subjects while engaging in student-led initiatives.

Projects

Sentiment Analysis

Objective: Built a system to classify text (positive, negative, neutral, suicidal) using machine learning for customer feedback and social media posts

Technologies Used: Python, Pandas, Scikit-learn, Logistic Regression, TF-IDF, Streamlit.

Preprocessing: Cleaned text data, applied TF-IDF vectorization, and handled class imbalance.

MLOps Practices: Implemented version control using Git, containerized the application with Docker, and set up automated deployment pipelines for seamless updates.

Model Performance: Achieved an accuracy of 85% with logistic regression after hyperparameter tuning.

Deployment: Deployed on Streamlit for real-time sentiment analysis, allowing user input for dynamic predictions.

Contribution: Independently handled data preprocessing, feature engineering, model training, and deployment.

Real Estate Model App

The MLOps inclusion demonstrates your ability to manage end-to-end machine learning systems. Developed a real estate suite for price prediction, analysis, and apartment recommendations using machine learning. Achieved 95% accuracy using Random Forest. Deployed three apps via Streamlit for user-friendly interactions. GitHub: [Real Estate Model](#)

Movie Recommendation System

Objective: Developed a movie recommendation system to suggest films based on user preferences using collaborative filtering techniques.

Technologies Used: Python, Pandas, NumPy, Scikit-learn, Streamlit

Preprocessing: Cleaned data and performed exploratory analysis to enhance recommendation accuracy.

MLOps Practices: Implemented version control using Git, containerized the application with Docker, and set up automated deployment pipelines for seamless updates.

Model Performance: Achieved a recommendation accuracy of 90% (insert actual metric).

Deployment: Deployed on Streamlit for real-time sentiment analysis, allowing user input for dynamic predictions.

Contribution: Managed development from data processing to deployment.

CBC Report Checker

Developed a web app to analyze Complete Blood Count (CBC) reports, providing health insights using Python, Streamlit, Pandas, and NumPy. Implemented feature engineering to enhance prediction accuracy. Used DVC for dataset and model version control, and Docker for containerization. Deployed on Streamlit for an intuitive user interface. Managed the full project lifecycle, including data preprocessing, model training, and deployment, using medical datasets to predict health conditions based on CBC parameters.

