

Mohammad Ibrahim Hossain

Machine Learning Engineer | Data Scientist | MLOps Specialist

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Detail-oriented expert in **Data Science** and **Machine Learning** and **MLOps**, with extensive experience in **end-to-end model development, deployment, and optimization**. Proven record of delivering high-accuracy solutions—such as real estate price predictions at **95% accuracy**—using **Python, NLP, Docker, and AWS**. Specialized in **data-driven insights** using **sentiment analysis, recommendation engines, and automated ML pipelines** for **scalable AI solutions**.

SKILL

Technical Skills:

Machine Learning | Supervised & Unsupervised Learning, Model Selection, Hyperparameter Tuning, Ensemble Methods, **Natural Language Processing (NLP)**

Deep Learning | Neural Networks, CNNs, RNNs, Transfer Learning, Model Optimization

Data Science | Data Cleaning, data pipelines, Feature Engineering, **Data Representation (SVG/JSON)**, EDA, Statistical Analysis, Data Visualization, **Advanced Statistics**.

MLOps | CI/CD, Docker, Kubernetes, automated testing, **Version Control**, model monitoring, **AWS (EC2, S3, SageMaker)**.

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

Programming Languages | Python (object-oriented programming), SQL

Soft Skills | Time Management, Teamwork, Troubleshooting, Collaboration, Multitasking, Problem-Solving.

Projects

Real Estate Model App(Data preprocessing, model development) | [Code](#)

Built an AI-powered real estate tool for **price prediction, data analysis, and apartment recommendations**. Utilized **Python, MLOps, Docker, Streamlit, AWS, Random Forest, CI/CD, DVC, and GitHub Actions** for deployment. Achieved **62 % to 95% accuracy**, helping users make **data-driven property investment decisions**

Sentiment Analysis(Used TensorFlow & Scikit-Learn for classification)

Developed an **NLP model** to classify text sentiment (**positive, negative, neutral, suicidal**) using **Pandas, Scikit-learn, Logistic Regression, MLOps, TF-IDF, Streamlit, and GitHub Actions**.

Achieved more than **85% tracking accuracy** with deep sort and achieved **avg accuracy of 62%**

Personal AI Chatbot

Developed and deployed a **chatbot** with dynamic, context-aware interactions and a user-friendly interface.

Focused on **personalized responses** and seamless engagement.

Technologies: **Python, NLP, Streamlit, Deep Learning, ML**

Movie Recommendation System(Collaborative filtering, Python)

Built a **recommendation system** using collaborative filtering to suggest films based on user preferences.

Technologies: **Python, Pandas, NumPy, Scikit-learn, MLOps, Docker, Git Action, Streamlit**.

Improved similarity score from **72% to 90%**. Deployed via **Streamlit** for **real-time recommendations**.

YouTube Comment Analyzer(NLP & Scientific Visualization) | [Code](#)

Developed a **YouTube comment analysis tool** using **AWS, MLOps, and NLP** to extract **sentiment trends and key insights**.

CBC Report Checker

Developed a **medical web app** to analyze **CBC reports** and provide **health insights**.

Handled **data preprocessing, feature engineering, and model deployment** for **accurate health analysis**.

Certification

CampusX DSMP 2.0 Certificate-
Demonstrated proficiency in Data Science, Machine Learning, and MLOps(e.g., AWS certifications, Docker, or Kubernetes)

WORK EXPERIENCE

Real Estate Price Prediction – AI & MLOps Deployment

- Developed machine learning models with **structured data representation** to predict real estate prices, achieving **62 % to 95% accuracy**.
- **Optimized** model interpretability by implementing **intuitive visualizations** for price trends and demand forecasting.
- **Automated** end-to-end ML pipelines using **Docker, MLOps frameworks, and AWS**, ensuring seamless deployment.
- **Integrated** real-time data analysis for dynamic model adaptability to market trends.
- **Deployed** APIs via **Flask and FastAPI**, enabling scalable and efficient access.
- **Implemented** monitoring and logging with **MLflow and CloudWatch**, ensuring stability and performance tracking.
- **Delivered** actionable insights, empowering stakeholders with data-driven investment decisions.

Mashover(Clothing Brand) – Data Science & Machine Learning Specialist

- **Optimized** sales strategies using **data science** and **machine learning**, boosting revenue for **Mashover**, a clothing brand in Dhaka.
- **Analyzed customer behavior** to identify trends and develop targeted marketing strategies, **increasing** local and online sales **from 68 % to 71%**
- **Built** predictive models to **forecast demand** and **optimize inventory**, **reducing overstock** and **improving product** availability.
- **Deployed** ML models to **enhance sales processes**, making them **more adaptive** and **data-driven**.

EDUCATION

CampusX DSMP 2.0 | Data Science, ML MLOps

Gained expertise in **Python, Machine Learning, MLOps, Model Deployment, CI/CD, Docker, and AWS**.

Real-world projects: model deployment, data pipeline automation, statistical analysis

Govt. Bangla College

(August 2023 - Present)

Relevant Coursework: **Mathematics, Physics, Computer Science Fundamentals**
Self-Led Projects:

- 1 . **Built a regression model** to **predict exam scores** using **Python**.
- 2 . **Designed a dashboard** to **visualize scientific data** with **Matplotlib**.

Languages

English: Fluent

Bangla: Native

Reference

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