

RISHABH PRAJAPATI

DATA SCIENCE

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Profile

Passionate about building state-of-the-art models and automating data pipelines. Strong problem-solving skills with expertise in developing AI-driven solutions.

Projects

Students Performance Prediction (Math Score) System

- Developed a machine learning model to predict students' math scores based on demographic and academic factors.

- Utilized Python, pandas, scikit-learn, and visualization tools for data preprocessing and model training.
- Implemented Linear Regression, Ridge, Lasso, SVR, DecisionTreeRegressor, and hyperparameter tuning using RandomizedSearchCV.

- Explored advanced techniques such as XGBoost and CatBoost for improved accuracy.

- Gained expertise in data ingestion and visualization methods like violin plots to analyze student

Predicting Air Quality with Machine Learning

- Developed a machine learning model to predict AQI (Air Quality Index) values based on real-world environmental data.

- Processed and cleaned air quality datasets, identifying key pollutants affecting air quality.

- Implemented Linear Regression, XGBRegressor, and RandomForestRegressor for accurate predictions.

- Evaluated model performance using RMSE and R^2 , optimizing for better accuracy.

- Utilized Python, pandas, scikit-learn, NumPy, and Matplotlib for data analysis and visualization.

Skills

Programming Languages:

- Python

Machine Learning & Deep Learning:

- **ML Algorithms:** Linear Regression, Logistic Regression, Decision Trees, Random Forest, XGBoost
- **DL Algorithms:** ANN, CNN, RNN

Computer Vision:

- Image Classification, Object Detection, Image Segmentation, OpenCV

Frameworks & Tools:

- TensorFlow

Database:

- MySQL

Cloud & MLOps:

- **Cloud:** AWS
- **MLOps:** Docker

Education

Bachelor's Degree – Indian Institute of Technology Patna (2023 – 2026)

Certifications

- Pandas Course has been completed on Kaggle.
- Data Visualization has been completed on Kaggle