

# Most Frequent Machine Learning Projects & Descriptions

## 30 Most Frequent ML Projects with Descriptions

### House Price Prediction

Description: Predicts house prices based on factors like location, size, and amenities.

Key Points:

- Uses regression models
- Trained on real estate datasets
- Helps in real estate valuation

### Stock Price Prediction

Description: Forecasts future stock prices using historical data and market trends.

Key Points:

- Utilizes time series analysis
- Implemented with LSTMs, ARIMA models
- Used for investment decisions

### Customer Churn Prediction

Description: Identifies customers likely to leave a service based on past behavior.

Key Points:

- Uses classification models
- Improves customer retention strategies
- Common in telecom and banking

### Credit Card Fraud Detection

Description: Detects fraudulent transactions using anomaly detection techniques.

Key Points:

- Uses supervised and unsupervised learning
- Relies on transaction patterns
- Essential for financial security

### Sentiment Analysis

Description: Analyzes customer feedback and social media sentiments.

Key Points:

- Uses NLP techniques
- Implemented with transformers like BERT
- Useful for brand monitoring

### Fake News Detection

Description: Classifies news articles as real or fake using NLP techniques.

Key Points:

- Uses deep learning for text classification

- Relies on linguistic features
- Combats misinformation

## **Spam Email Detection**

Description: Filters out spam emails using ML classifiers.

Key Points:

- Uses Naive Bayes, SVM, and deep learning
- Trained on email datasets
- Improves email security

## **Recommendation Systems**

Description: Suggests movies, products, or content based on user behavior.

Key Points:

- Uses collaborative and content-based filtering
- Implemented in e-commerce and streaming
- Enhances user experience

## **Handwritten Digit Recognition**

Description: Classifies handwritten digits from images using deep learning.

Key Points:

- Uses CNN models
- Trained on MNIST dataset
- Application in automated form processing

## **Heart Disease Prediction**

Description: Predicts the likelihood of heart disease based on medical data.

Key Points:

- Uses classification algorithms
- Analyzes patient records
- Helps in early diagnosis