

A gold bar is positioned in the lower-left foreground, resting on a dark, reflective surface. The background is a blurred city skyline at night, with various lights and buildings visible. The overall scene is dimly lit, with the gold bar being the primary light source in the foreground.

Gold Price Prediction

This repository contains a Jupyter Notebook for predicting gold prices using machine learning techniques.



by Nabhya Sharma

A person is seen from the side, working at a desk with multiple computer monitors. The main monitor in the foreground displays a candlestick chart for 'LLPSOX Gold' with a price of 150,200. Several other monitors in the background show various financial data visualizations, including bar charts, line graphs, and a large circular gauge with the number 7. The scene is dimly lit with a blue and purple color scheme.

Project Overview

1

Data Collection

The project begins by collecting historical gold price data from reliable sources.(Using Pandas)

2

Data Preprocessing

The collected data is then cleaned, transformed, and prepared for analysis.(Using Matplotlib)

3

Model Selection

Several machine learning models are explored and evaluated for their ability to predict gold prices.

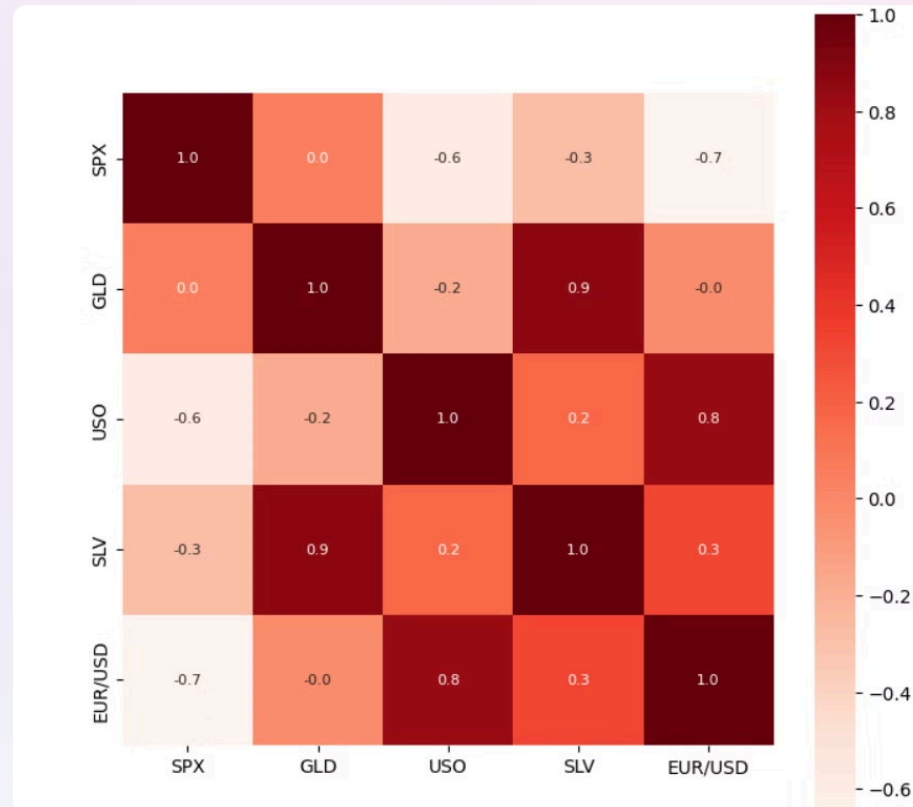
(Using Random Forest)

4

Model Training

The chosen model is trained on the prepared data to learn patterns and relationships.

Data Correlation



Correlation Analysis

The relationships between different variables are examined to understand their influence on gold prices.

Correction is positive if the two variables are directly proportional else negative.

Model Optimization

Distribution of Gold Price

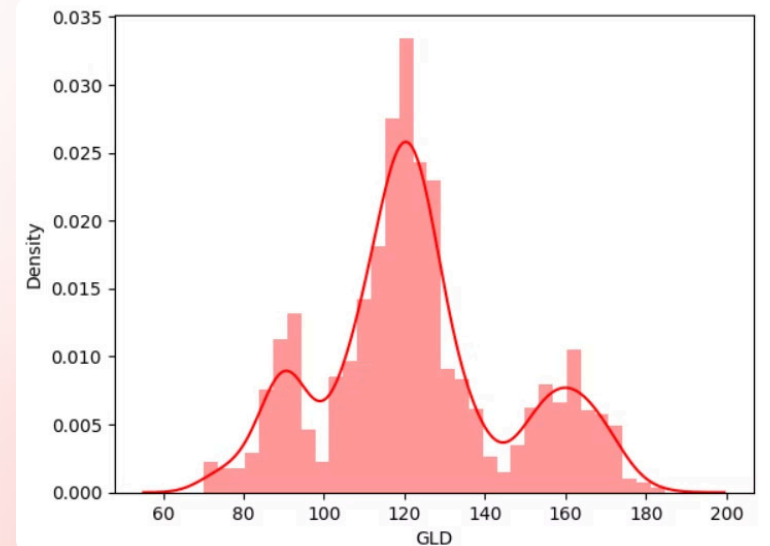
The model's distributions are adjusted to optimize its performance on the training data.

Cross-Validation

The model is evaluated on multiple subsets of the data to ensure its generalization ability.

Feature Selection

The most relevant features are selected to improve the model's efficiency and accuracy.



Gold Price Prediction

1

Data Input

Old data (since 2008) has been taken.

2

Prediction

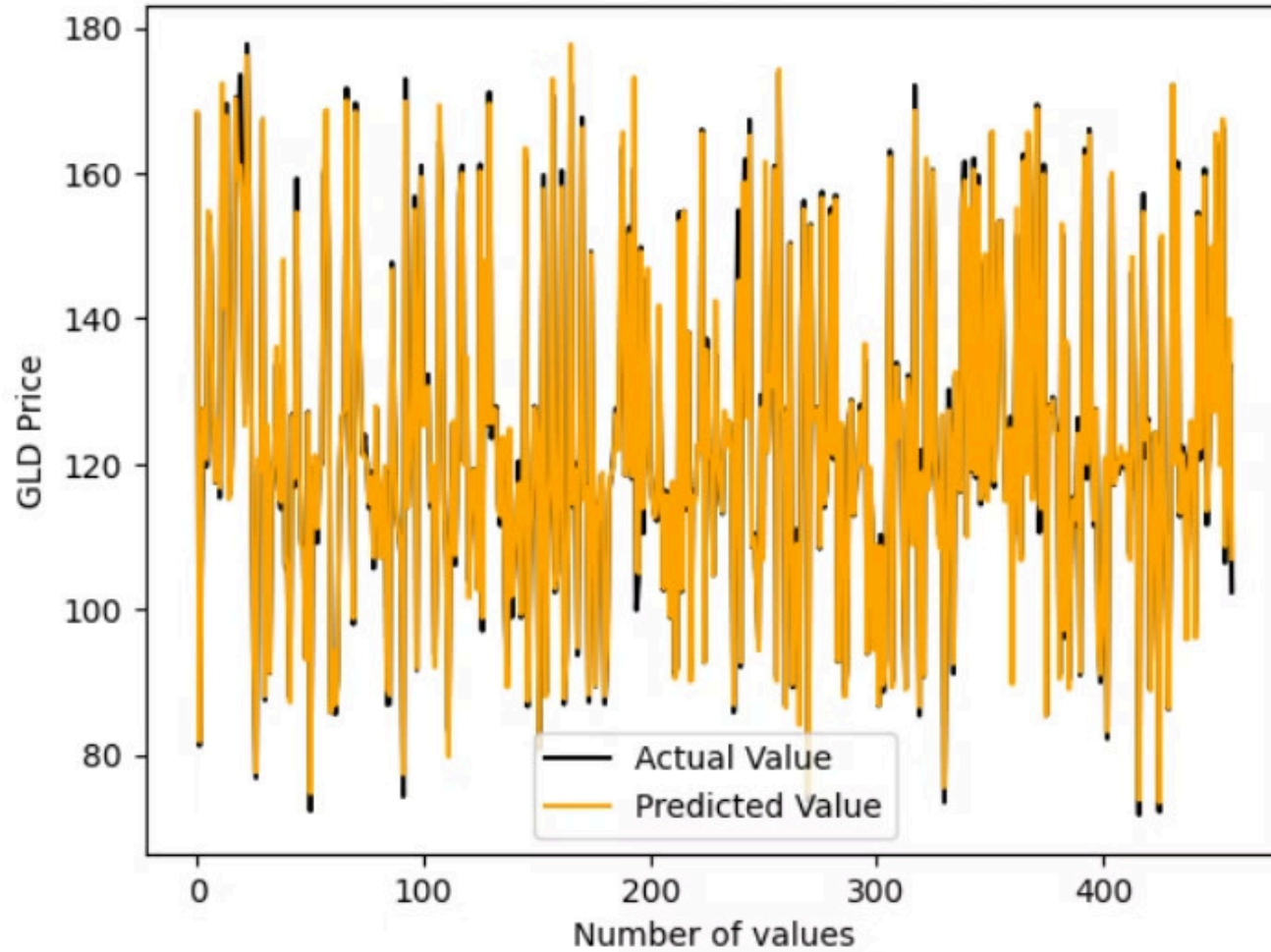
The model uses its learned patterns to predict future gold prices.

3

Output

The predicted gold prices are presented to the user in a clear and understandable format.

Actual Price vs Predicted Price





Conclusion

This project demonstrates the use of machine learning for predicting gold prices. The model can be used to provide insights into future price movements and assist investors in making informed decisions.