

■ RCS-ML Forex/Gold Trading System

Overview

A full machine learning system for predicting forex/gold movements using Relative Currency Strength (RCS) and other features. B

■ Folder Structure

```
...  
project/  
■■■ notebooks/  
■■■ logs/  
■■■ data/  
■■■ models/  
■■■ signal_logger.py  
■■■ backtester.py  
■■■ explainability.py  
■■■ onnx_benchmark.py  
■■■ rolling_labeling.py  
■■■ feature_filtering.py  
■■■ app.py  
■■■ requirements.txt  
■■■ .github/workflows/ci.yml  
...
```

■■ Configuration

```
```yaml  
symbols: ["XAUUSD", "EURUSD"]
lookback_window: 50
features:
 - rsi
 - macd
 - adx
 - roc
 - returns_lag
 - dxy
 - spx
use_feature_drift: true
use_correlation_filter: true
label_horizon: 10
label_method: binary
```
```

■ Feature Engineering

Supports:

- Technical indicators
- Lagged features
- Cross-asset (DXY, SPX)
- Macro (rates, inflation)
- Session-based (hour, weekday)

■ Feature Selection

- Manual
- Permutation Importance
- SHAP Ranking
- Greedy Forward
- Stability Filtering
- Correlation Filtering
- Drift Detection

■■ Rolling Labeling

- Binary, Ternary, Regression targets

■ Model Training

- CNN, LSTM, Trees
- ONNX + HDF5 output