



PIPELINE ARCHITECTURE DOCUMENT

1. Pipeline Overview

The project follows a structured machine learning pipeline to ensure smooth data flow and reproducibility.

2. Pipeline Flow

1. Data Collection
 2. Data Preprocessing
 3. Exploratory Data Analysis
 4. Feature Engineering
 5. Model Training
 6. Model Evaluation
 7. Prediction Output
 8. Deployment (Optional)
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3. Data Flow Description

- Raw cryptocurrency data is loaded from a CSV file
- Data is cleaned and normalized
- Volatility-related features are engineered
- Machine learning model is trained

- Predictions are generated on unseen data

4. Pipeline Advantages

- Modular and scalable design
- Easy debugging and maintenance
- Can be extended to real-time data
- Applicable to other financial assets