

Real-Time Fraud Detection in Financial Transactions

Use Case: Real-Time Financial Transactions Monitoring

This system continuously monitors financial transactions to detect fraudulent activities. Anomalies in transaction patterns can indicate potential fraud, helping financial institutions prevent losses and unauthorized access. Our model uses **AI-based anomaly detection** (Isolation Forest) to validate each transaction and flag suspicious ones in real-time.

How it Works:

- Simulates real-time financial transactions (amount, transaction type, balance, etc.)
- Uses **AI-based anomaly detection** to detect fraud.
- Provides a **real-time dashboard** for transaction monitoring.
- Displays anomalies for further investigation.

Initializing fraud detection model...

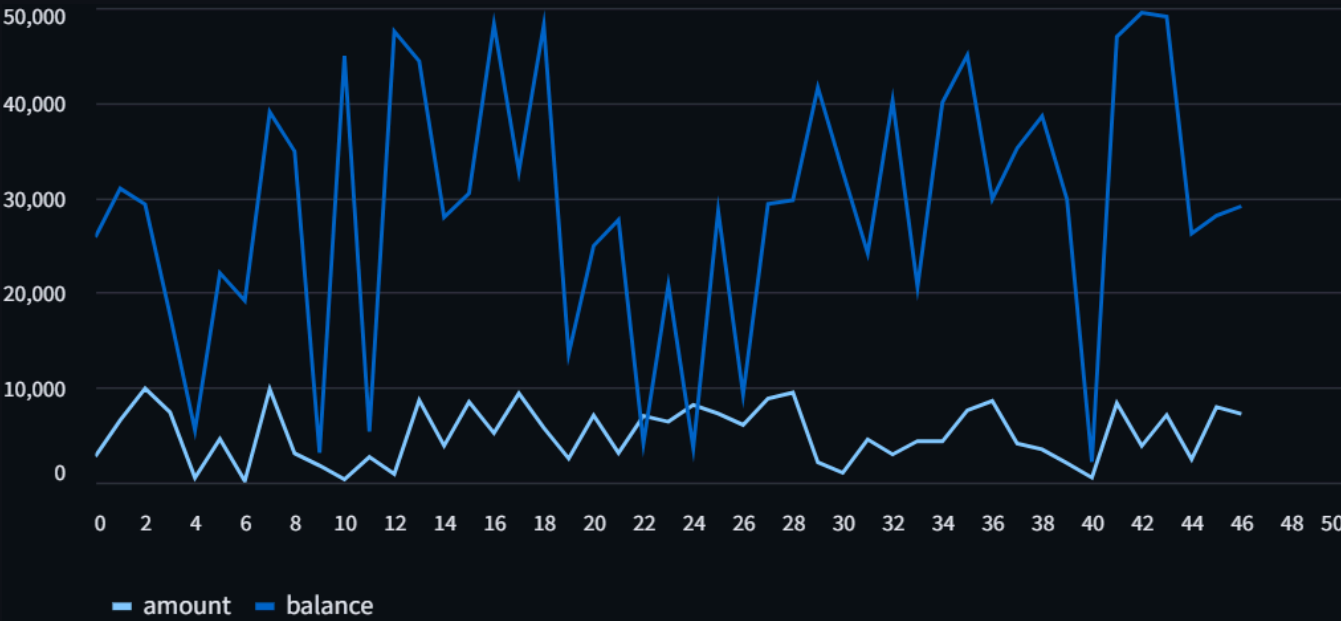
Model initialized successfully!

Real-Time Transaction Monitoring

Latest Transactions with Validation Status

	amount	transaction_type	balance	status
37	4,111.2672	Credit	35,213.8605	Legit
38	3,472.5921	Debit	38,582.9979	Legit
39	2,039.8917	Debit	29,807.3852	Legit
40	507.36	Debit	2,172.1375	Legit
41	8,348.9816	Credit	46,955.1103	Legit
42	3,844.8722	Credit	49,474.2376	Legit
43	7,104.3719	Debit	49,061.6436	Legit
44	2,449.451	Credit	26,227.04	Legit
45	7,947.7401	Credit	28,116.6797	Legit
46	7,216.2088	Debit	29,097.3792	Legit

Transaction Trends Over Time



Recent Fraudulent Transactions

No fraudulent transactions detected recently.