

NIFTY 50 MARKET INTELLIGENCE PLATFORM

Real-Time Stock Analytics Dashboard



- > Medikonda Akhilesh
- > Data Analyst Portfolio
- > February 2026

PROJECT SCOPE & ARCHITECTURE

60,960

Trading Records Processed (4 Years)

48

Nifty 50 Stocks Across 8 Sectors

12

Engineered Features Per Record



Python
(Pandas)



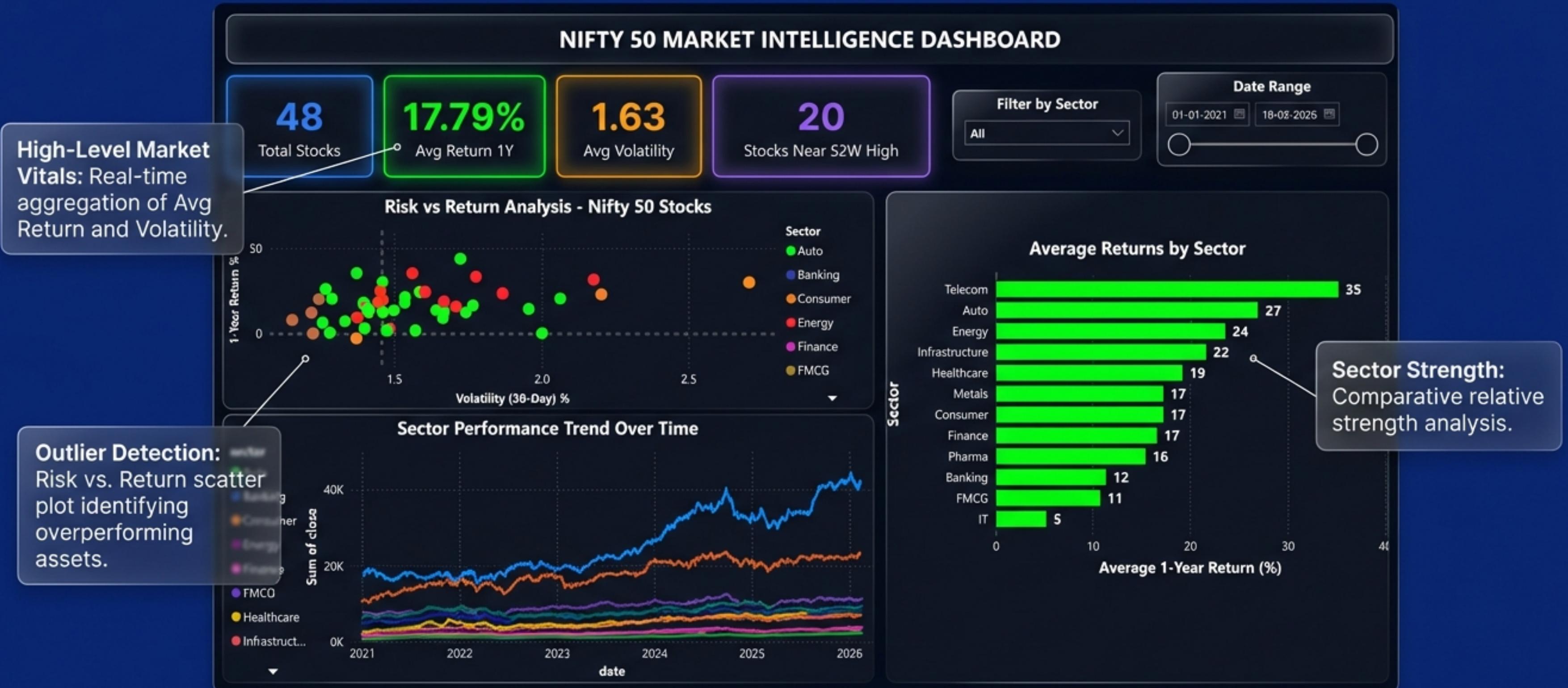
PostgreSQL



Power BI

Automated Daily Refresh
via Yahoo Finance API

EXECUTIVE OVERVIEW - Risk & Return Analysis



Interactive dashboard showing sector performance, risk-return scatter plot, and top performers. Users can filter by sector using the slicer.

INTERACTIVE FILTERING EXAMPLE



Demonstrates dynamic filtering - when a sector is selected, all 17+ visuals update instantly.

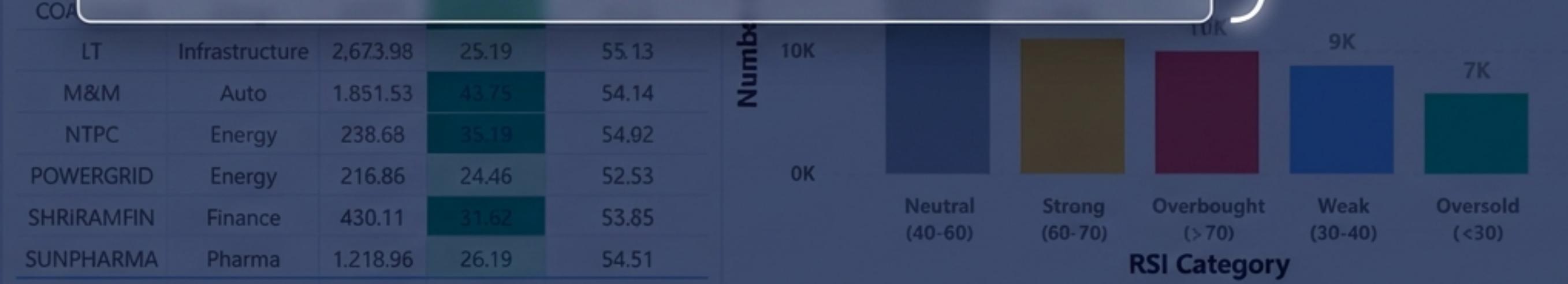
RISK ANALYSIS & STOCK SCREENER

Monthly Sector Returns Heatmap

Sector	January	February	March	April	May	June	July	August	September	October	November	December	Total
Auto	25.96	22.59	20.23	26.93	26.98	24.28	25.60	27.77	32.60	30.29	30.72	31.67	27.01
Banking	13.19	12.35	10.91	16.48	13.01	12.09	13.41	9.56	8.40	7.83	8.51	11.43	11.51
Consumer	21.65	23.08	20.45	20.55	17.51	12.59	15.91	16.16	14.74	12.21	14.65	14.84	17.34
Energy	21.81	25.21	25.27	29.97	25.08	22.33	26.27	27.77	23.39	20.06	16.52	20.06	23.66
Finance	11.51	12.35	10.91	16.48	13.01	12.09	13.41	9.56	8.40	7.83	8.51	11.43	11.51
FMCG	11.44	12.38	10.94	16.51	13.04	12.10	13.44	9.59	8.43	7.87	8.54	11.47	11.69
Healthcare	11.44	12.38	10.94	16.51	13.04	12.10	13.44	9.59	8.43	7.87	8.54	11.47	11.69
Infrastructure	11.44	12.38	10.94	16.51	13.04	12.10	13.44	9.59	8.43	7.87	8.54	11.47	11.69
IT	11.44	12.38	10.94	16.51	13.04	12.10	13.44	9.59	8.43	7.87	8.54	11.47	11.69
Metals	11.44	12.38	10.94	16.51	13.04	12.10	13.44	9.59	8.43	7.87	8.54	11.47	11.69
Total	11.44	12.38	10.94	16.51	13.04	12.10	13.44	9.59	8.43	7.87	8.54	11.47	11.69

Monthly Sector Returns Heatmap

Sector	January	February	March	April	May	July	August	September	November	Total
Auto	15.04	9.64	5.88	9.54	13.03	10.30	12.76	14.55	16.96	12.82
Banking	10.07	10.44	10.22	13.42	14.72	11.48	10.87	10.20	7.14	10.78
Consumer	6.36	4.34	1.13	2.22	5.57	6.30	7.29	5.47	7.61	5.71
Energy	11.81	6.15	5.45	3.54	8.63	10.92	9.20	5.69	11.83	8.72
Finance	8.95	6.88	7.65	9.107	10.60	12.25	10.57	4.28	7.95	8.87
FMCG	6.48	6.19	5.18	7.45	10.01	7.33	6.70	4.25	7.95	8.87
FMCG	6.48	6.11	5.73	7.45	10.01	6.86	6.70	6.86	8.11	7.40
Healthcare	9.01	5.19	6.73	8.00	20.26	19.99	15.91	12.29	10.95	13.40
Infrastructure	11.12	15.17	14.74	17.02	17.24	6.17	15.74	12.89	12.48	13.40
IT	8.41	9.35	7.46	5.54	7.55	6.88	4.31	5.10	-0.18	5.96
Metals	10.91	9.62	14.01	5.54	2.89	8.23	9.02	9.42	13.31	9.50
Total	10.11	8.79	7.90	8.75	10.49	9.72	9.83	8.44	9.37	16.44



Advanced screener enabling users to identify specific investment opportunities based on technical indicators.

Oversold < 30 | Overbought > 70

RSI Range

1.12

100.00

Return Range

-57.16

272.96

Volatility Filter

0.49

11.31

Parametric Filtering: Users isolate opportunities based on RSI, Return, and Volatility.

Stocks with Highest Drawdown (% from Peak)

WIPRO

-28

ADANIENT

-26

TECHM

-21

INDUSIN...

-21

HEROMO...

-19

DIVISLAB

-18

BPCL

-16

ASIANPA...

-17

TATASTEEL

-16

High Risk Threshold

-10

-20

0

NotebookLM

DATA-DRIVEN INSIGHTS

Sector Performance

Banking leads with 22.4% avg return and low volatility (1.8%), offering the best risk-adjusted value. Energy follows with 18.1%.



The Laggards

IT Sector shows a -7.11% 1-year return. This represents a potential 'value trap' or a deep-discount entry point depending on risk tolerance.



Trading Signals

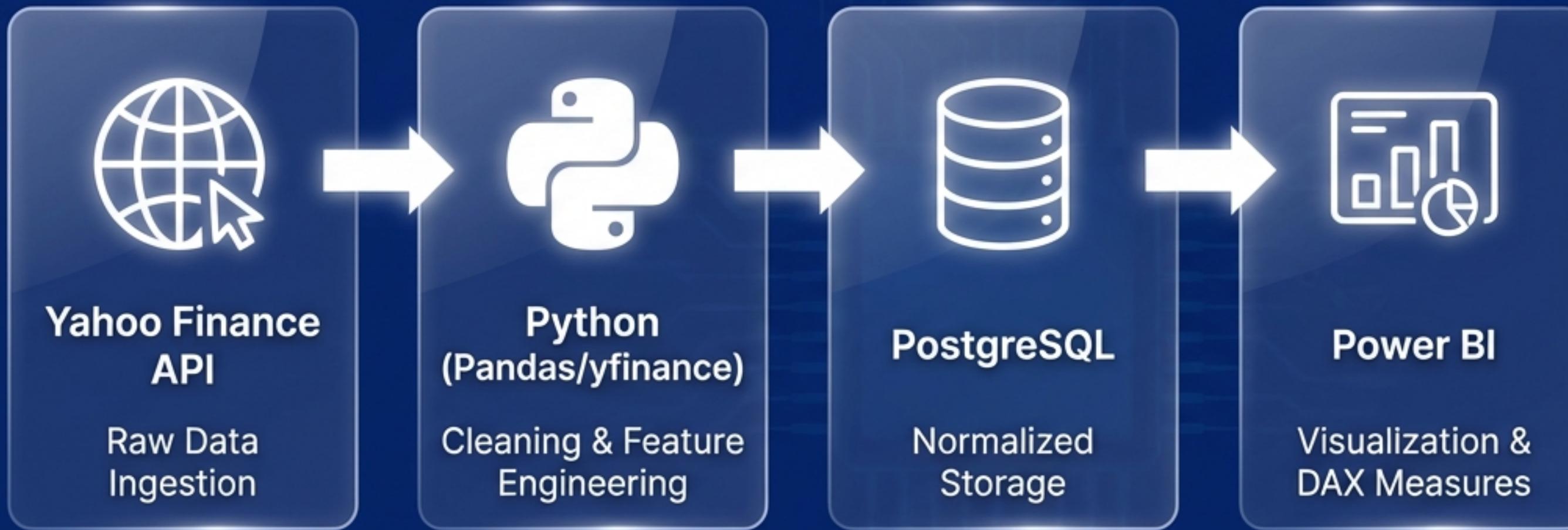
12 stocks are within 5% of 52-week highs (Momentum).

8 stocks have RSI < 30 (Oversold).

HDFCLIFE and WIPRO show >25% drawdown.

HDFCLIFE
WIPRO
TECHM

TECHNICAL IMPLEMENTATION



- Rolling Returns (1M, 1Y)
- 30-Day Volatility
- RSI Indicator
- Drawdown Calc

Dashboard Capabilities

- ✓ Real-time filtering across 4 parameters
- ✓ Dynamic Top N ranking
- ✓ Conditional formatting risk levels
- ✓ 17+ interactive visualizations

VIEW THE PROJECT



Scan to View GitHub Repository

github.com/Akhi1704/Data_Analysis_Projects



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