



Equity Trading: AI Companies Recommendation

The background of the slide features a complex, abstract network graph. It consists of numerous small, glowing nodes (dots) in shades of red, orange, yellow, and blue, connected by thin lines forming a web-like structure. This pattern repeats across the entire slide, creating a sense of depth and connectivity. A single, larger, semi-transparent teal sphere is positioned in the lower-left quadrant of the dark blue background.

Executive Summary

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- Our Customer is interested in investing in the AI Market and requested assistance on which stocks to invest in
- In this project we have selected 19 AI Stocks and have leveraged Data Science to assess best AI Stocks to invest
- We collected excellent quality stock data using Tradestation API's, and performed clean-up and analysis using several techniques such as:
 - Price pattern,
 - Technical Indicators, and
 - Prediction Algo leveraging Prophet
- Top 5 AI Stocks to invest are recommended and justification are provided in the Conclusion section of this presentation



Data Process

Data Collection, leveraging Tradestation WEB API's

Cleanup, eliminating noise

Exploration & Insights, Technical Analysis with
Prediction



Data Collection Process

- Tradestation is one of the leading Trading Platform provider, enabling easy access to quality market data, while free of charge
- The Process to collect the data:
 - Generated an Access Token, with the allowed Scope defined
 - Defined the base url
 - Defined the data length for historical purposes
 - Using list comprehension, we created a List composed of the json file for each AI Stock being evaluated
 - All collected data were stored locally, avoid having to call the API's every time.

Data Cleanup Process

1. Created dictionary of Dataframe for each stock symbol
2. The Dataframe was filtered, resulting in Date, OHCLV bar information structure
3. Date was converted to Datetime and set as index and rest of the data was converted to float
4. Data is now ready for analysis

Exploration & Insights Process

I. Correlation Analysis

1. With Market Benchmarks (SPY and QQQ)
 2. Between Stocks
2. 52 weeks and 12 weeks Performance Analysis
 3. Technical Analysis & Trend Analysis
 4. Prediction Algo leveraging Prophet



Visuals



I. Market Correlation

	Correlation with SPY	Correlation with QQQ
ACN	0.79	0.65
ADBE	-0.01	-0.05
AMD	-0.45	-0.40
AMZN	0.74	0.82
ANET	0.94	0.94
ARM	0.51	0.61
ASML	-0.69	-0.53
AVGO	0.79	0.86
GOOGL	0.48	0.66
IBM	0.85	0.73
INTC	-0.66	-0.55
META	0.89	0.85
MSFT	0.35	0.53
NOW	0.91	0.84
NVDA	0.91	0.92
ORCL	0.94	0.85
PLTR	0.88	0.86
SAP	0.93	0.87
TSM	0.93	0.95

2. Stocks Correlation

	NVDA	MSFT	GOOGL	AMZN	META	TSM	ASML	ADBE	IBM	ANET	AVGO	ORCL	SAP	ACN	NOW	AMD	PLTR	ARM	INTC
NVDA	1.00	0.92	0.85	0.67	0.88	0.87	0.62	0.24	0.92	0.97	0.97	0.94	0.93	0.49	0.89	0.74	0.73	0.90	-0.54
MSFT	0.92	1.00	0.90	0.69	0.88	0.76	0.77	0.47	0.82	0.91	0.91	0.88	0.88	0.66	0.88	0.90	0.60	0.90	-0.39
GOOGL	0.85	0.90	1.00	0.85	0.89	0.85	0.72	0.55	0.73	0.80	0.83	0.80	0.85	0.69	0.90	0.80	0.72	0.78	-0.21
AMZN	0.67	0.69	0.85	1.00	0.87	0.87	0.63	0.64	0.61	0.59	0.63	0.61	0.79	0.62	0.84	0.66	0.81	0.83	0.15
META	0.88	0.88	0.89	0.87	1.00	0.91	0.74	0.57	0.83	0.83	0.85	0.85	0.96	0.62	0.93	0.79	0.82	0.88	-0.17
TSM	0.87	0.76	0.85	0.87	0.91	1.00	0.63	0.39	0.79	0.79	0.83	0.79	0.92	0.52	0.90	0.67	0.86	0.89	-0.19
ASML	0.62	0.77	0.72	0.63	0.74	0.63	1.00	0.60	0.50	0.55	0.58	0.55	0.69	0.56	0.62	0.84	0.36	0.60	-0.02
ADBE	0.24	0.47	0.55	0.64	0.57	0.39	0.60	1.00	0.19	0.18	0.21	0.31	0.44	0.66	0.51	0.57	0.36	-0.42	0.45
IBM	0.92	0.82	0.73	0.61	0.83	0.79	0.50	0.19	1.00	0.94	0.93	0.89	0.89	0.52	0.86	0.65	0.73	0.73	-0.52
ANET	0.97	0.91	0.80	0.59	0.83	0.79	0.55	0.18	0.94	1.00	0.99	0.93	0.90	0.50	0.87	0.71	0.70	0.82	-0.62
AVGO	0.97	0.91	0.83	0.63	0.85	0.83	0.58	0.21	0.93	0.99	1.00	0.92	0.91	0.49	0.89	0.71	0.73	0.80	-0.56
ORCL	0.94	0.88	0.80	0.61	0.85	0.79	0.55	0.31	0.89	0.93	0.92	1.00	0.91	0.55	0.88	0.67	0.74	0.70	-0.56
SAP	0.93	0.88	0.85	0.79	0.96	0.92	0.69	0.44	0.89	0.90	0.91	0.91	1.00	0.57	0.94	0.73	0.84	0.83	-0.33
ACN	0.49	0.66	0.69	0.62	0.62	0.52	0.56	0.66	0.52	0.50	0.49	0.55	0.57	1.00	0.71	0.74	0.47	0.21	0.03
NOW	0.89	0.88	0.90	0.84	0.93	0.90	0.62	0.51	0.86	0.87	0.89	0.88	0.94	0.71	1.00	0.76	0.87	0.66	-0.27
AMD	0.74	0.90	0.80	0.66	0.79	0.67	0.84	0.57	0.65	0.71	0.71	0.67	0.73	0.74	0.76	1.00	0.42	0.56	-0.13
PLTR	0.73	0.60	0.72	0.81	0.82	0.86	0.36	0.36	0.73	0.70	0.73	0.74	0.84	0.47	0.87	0.42	1.00	0.54	-0.16
ARM	0.90	0.90	0.78	0.83	0.88	0.89	0.60	-0.42	0.73	0.82	0.80	0.70	0.83	0.21	0.66	0.56	0.54	1.00	-0.55
INTC	-0.54	-0.39	-0.21	0.15	-0.17	-0.19	-0.02	0.45	-0.52	-0.62	-0.56	-0.56	-0.33	0.03	-0.27	-0.13	-0.16	-0.55	1.00

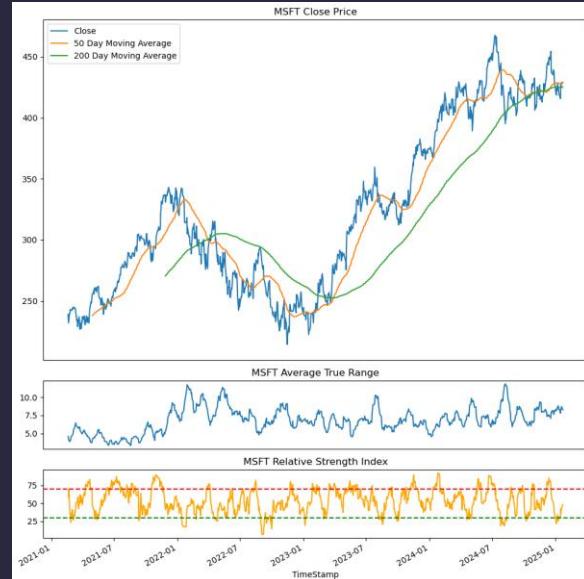
Count of Corr. > 0.9	
NVDA	6
AVGO	6
SAP	6
ANET	5
ORCL	4
META	3
IBM	3
MSFT	3
TSM	2
NOW	2
ASML	0
ADBE	0
AMZN	0
GOOGL	0
ACN	0
AMD	0
PLTR	0
ARM	0
INTC	0

3. 52 Weeks and 12 Weeks Performance

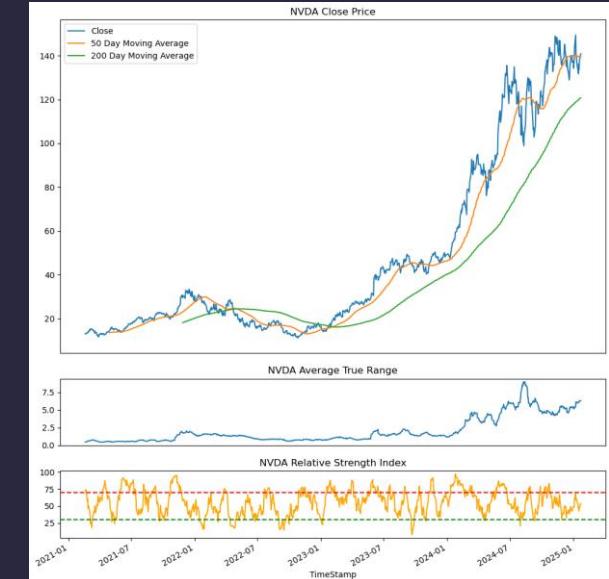
	52 Weeks Performance	12 Weeks Performance
PLTR	335.46	62.88
NVDA	136.73	-0.50
AVGO	98.41	38.91
ARM	97.51	7.97
TSM	91.51	7.50
ANET	84.43	23.33
SAP	64.75	13.29
META	60.77	7.54
ORCL	57.35	-0.55
AMZN	48.52	22.83
NOW	46.42	15.35
GOOGL	35.30	19.83
IBM	30.78	4.47
MSFT	7.48	0.08
ASML	0.68	7.21
ACN	-2.06	-1.21
ADBE	-28.65	-9.79
AMD	-29.82	-21.73
INTC	-54.79	-4.01

4. Technical Analysis (1/5)

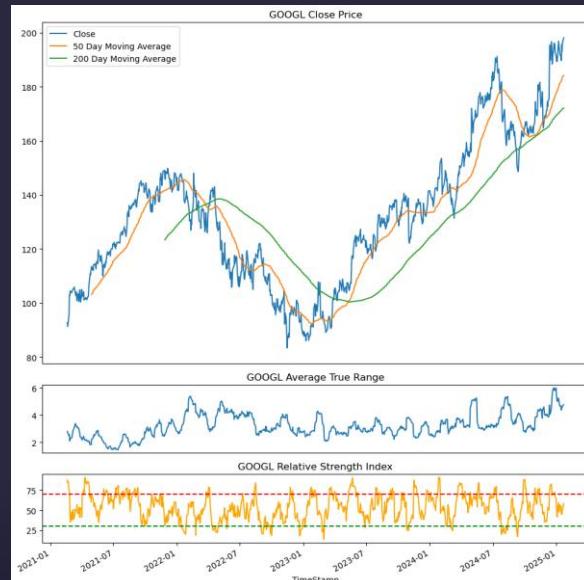
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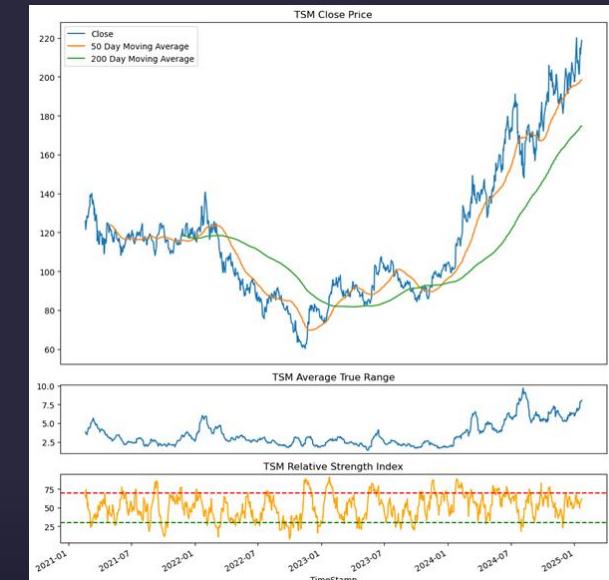
NVIDIA



ALPHABET

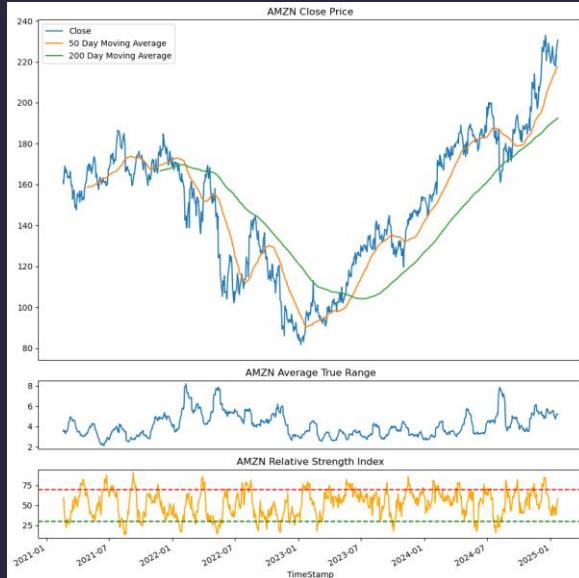


TSM

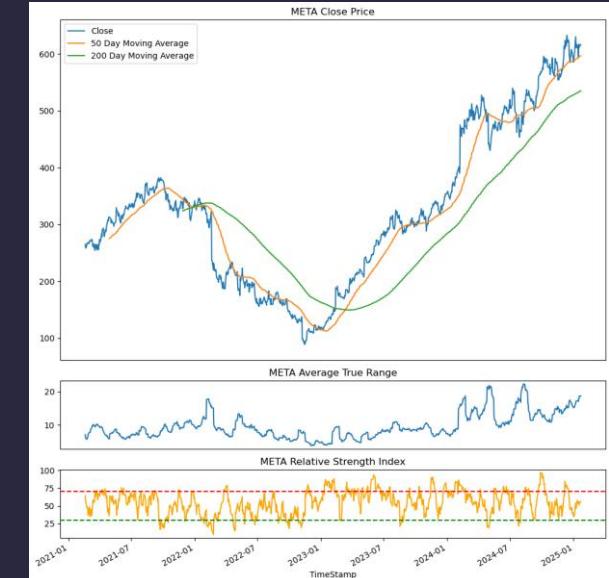


4. Technical Analysis (2/5)

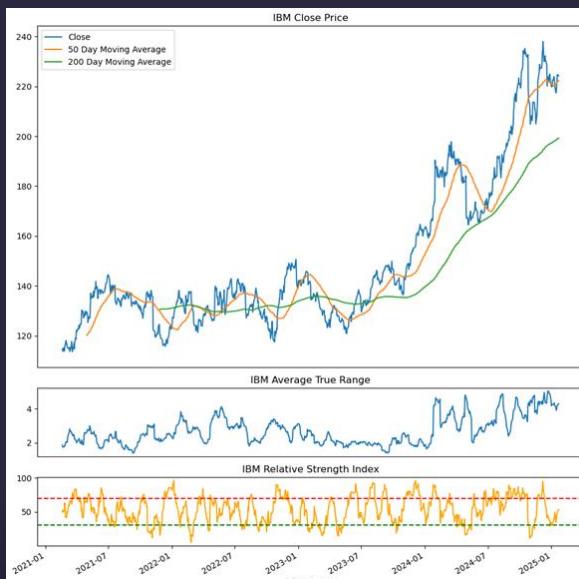
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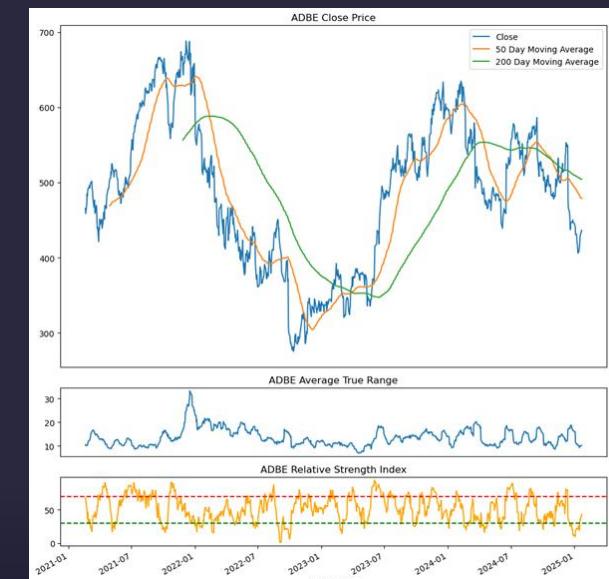
META



IBM

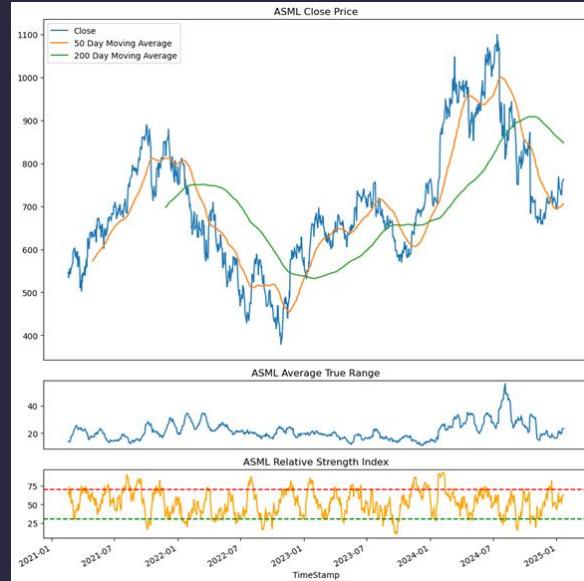


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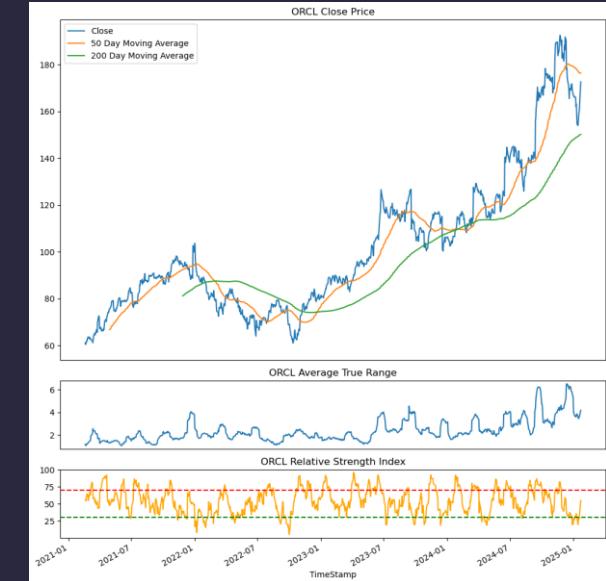


4. Technical Analysis (3/5)

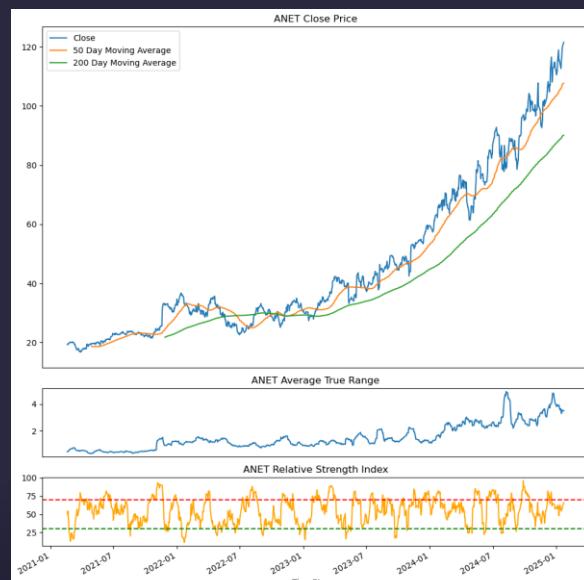
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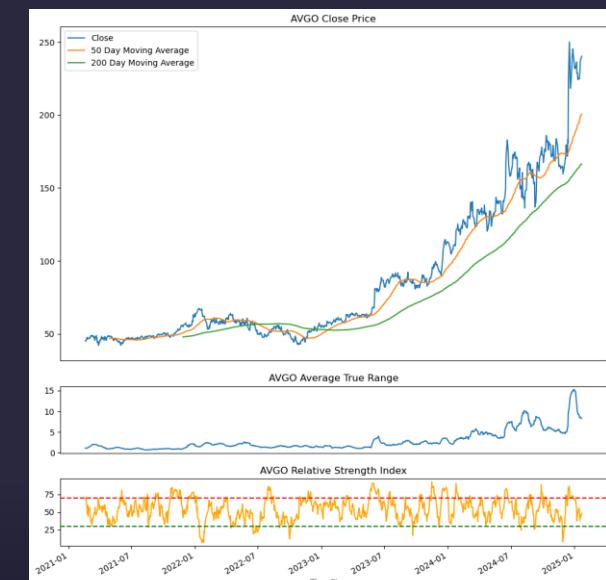
ORCL



ANET

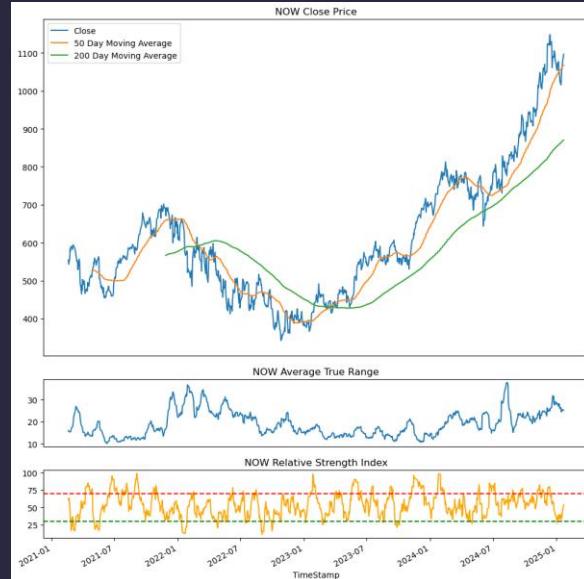


AVGO

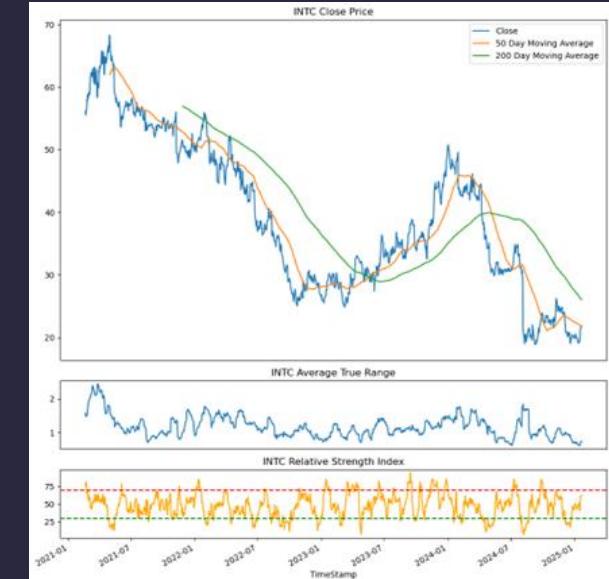


4. Technical Analysis (4/5)

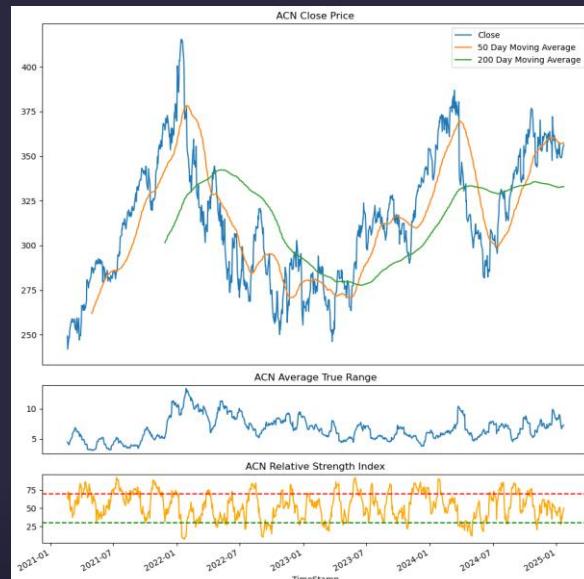
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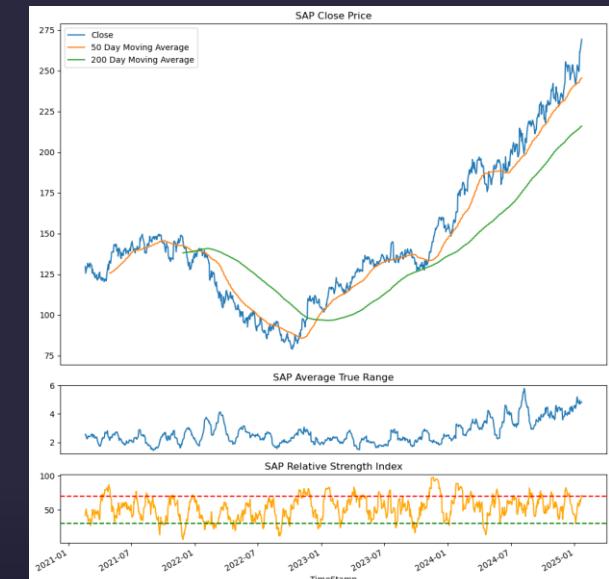
INTEL



ACN

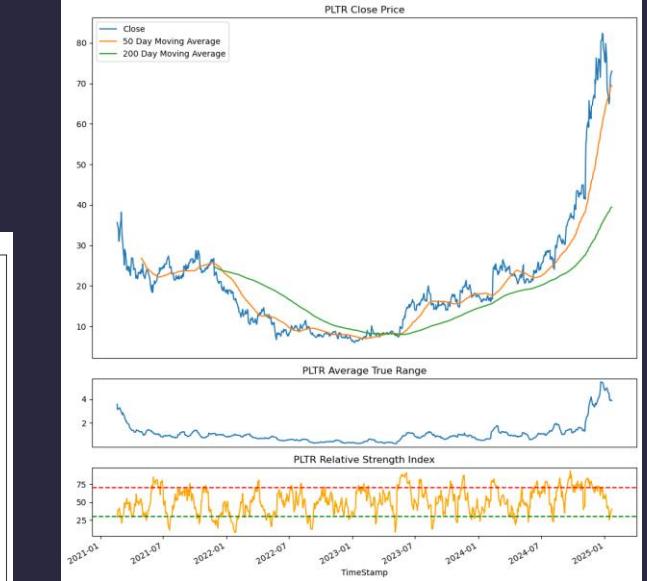
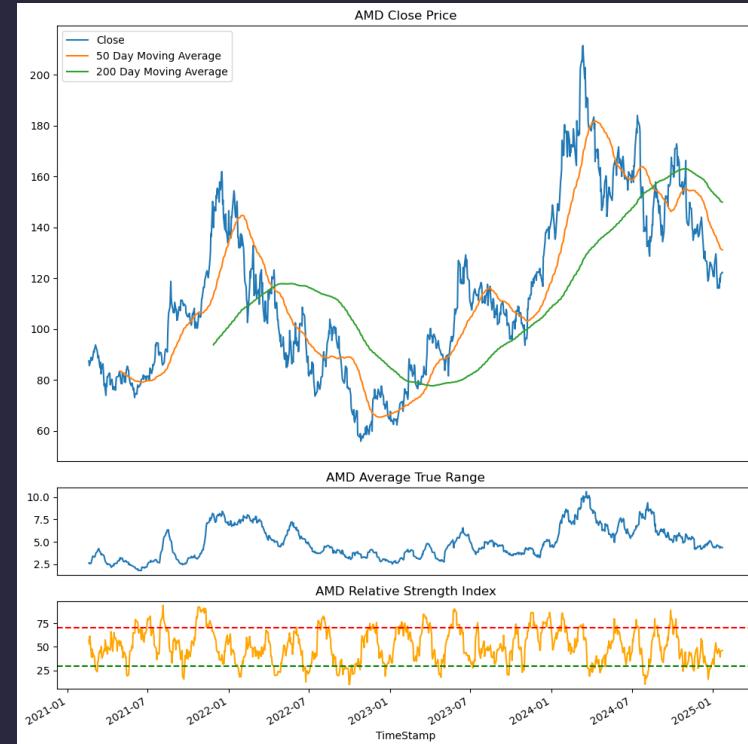


SAP

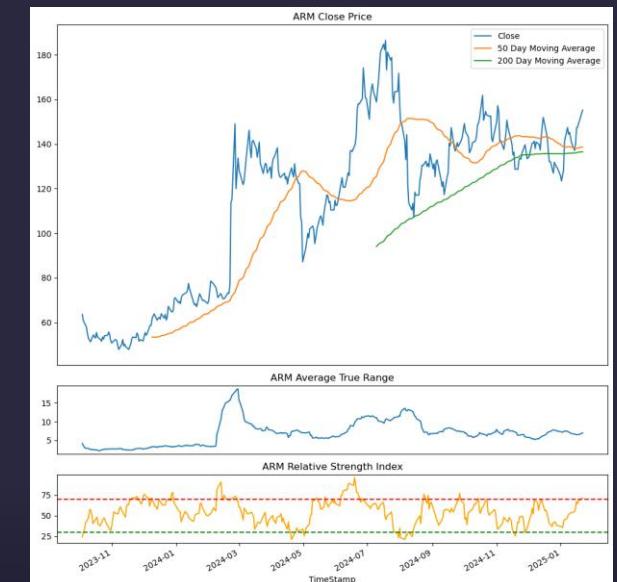


4. Technical Analysis (5/5)

AMD

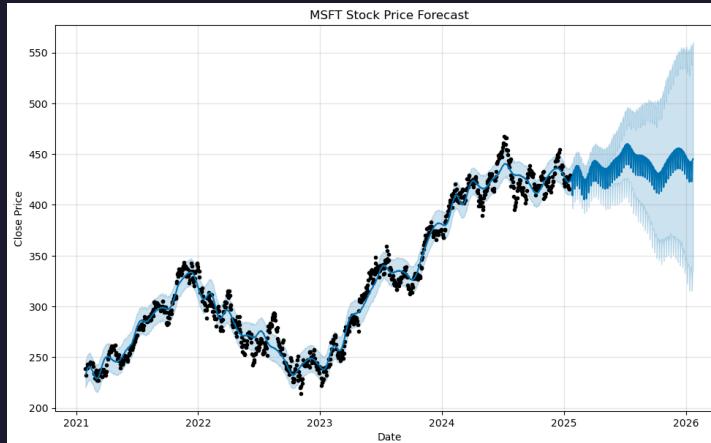


ARM

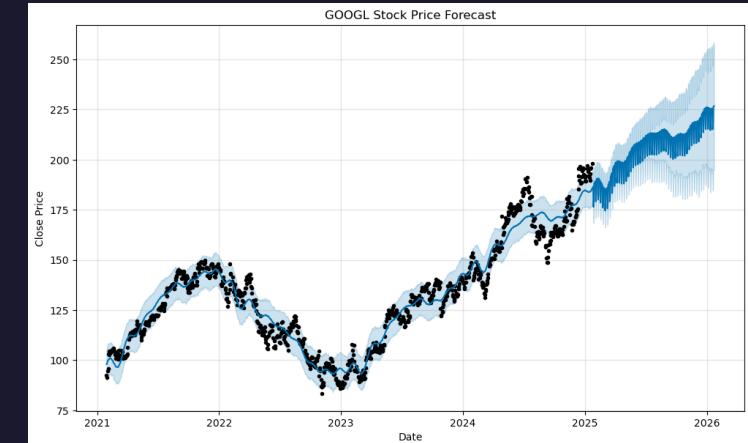


5. Prediction Analysis (1/5)

MICROSOFT



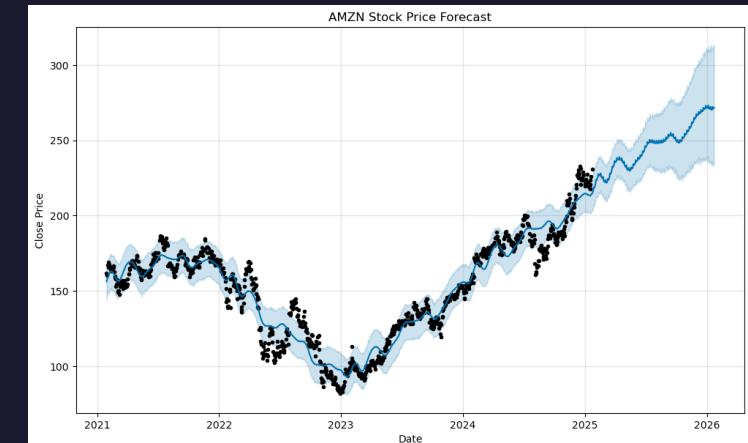
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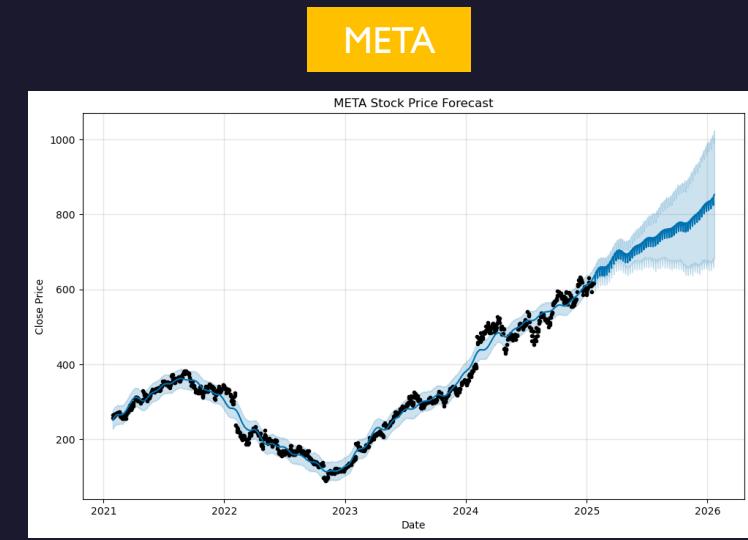
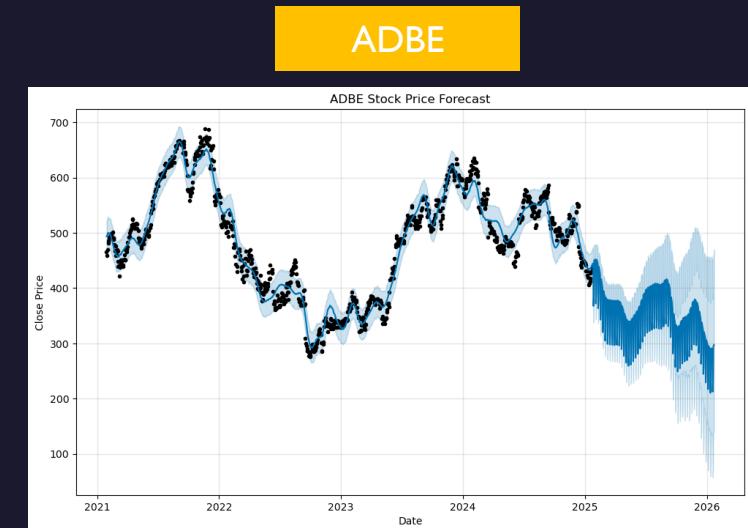
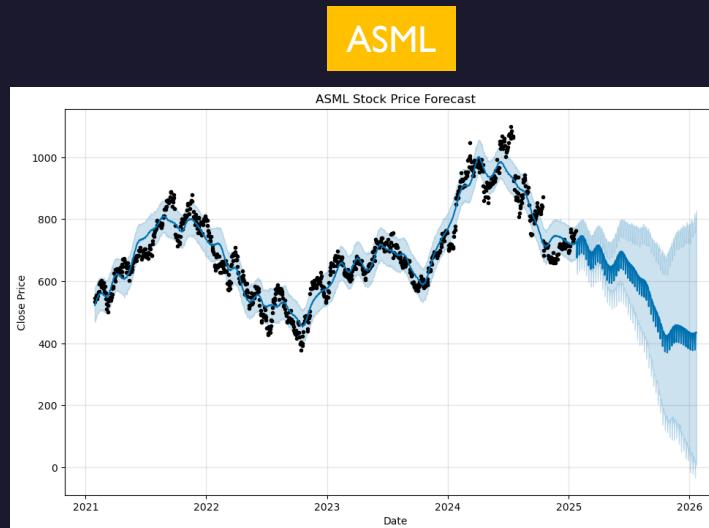
NVIDIA



AMZN

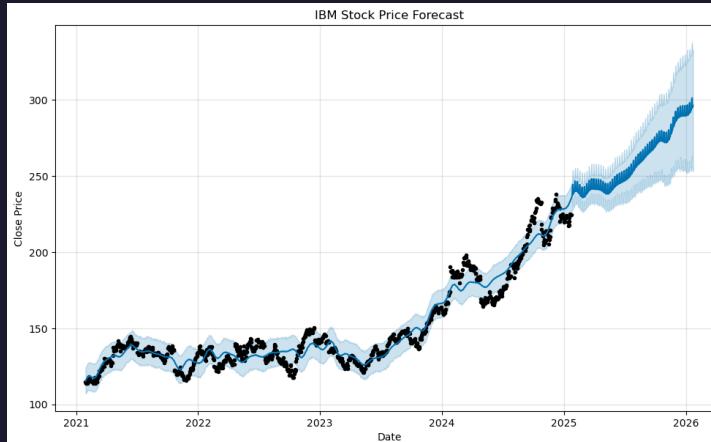


5. Prediction Analysis (2/5)

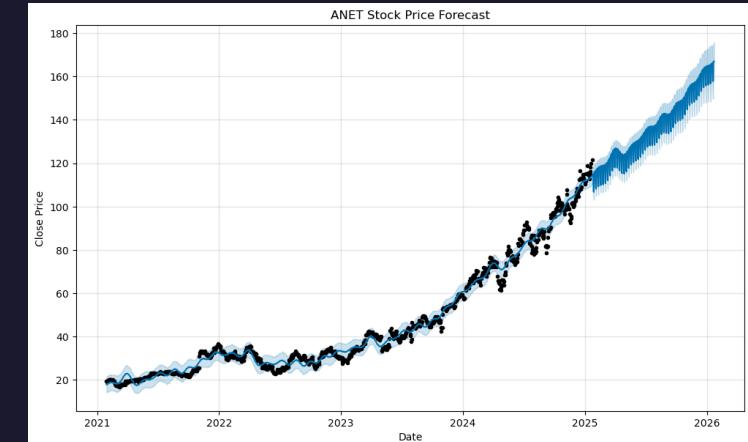


5. Prediction Analysis (3/5)

IBM



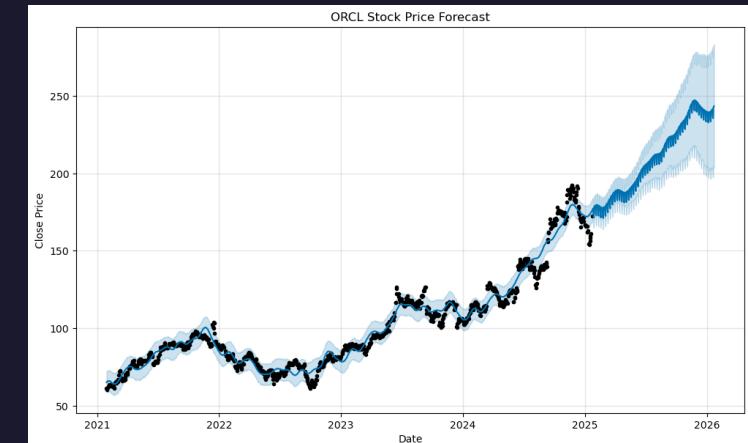
ANET



AVGO

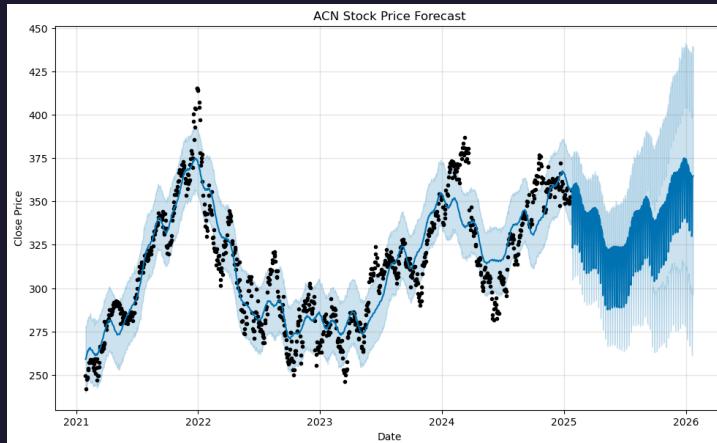


ORCL

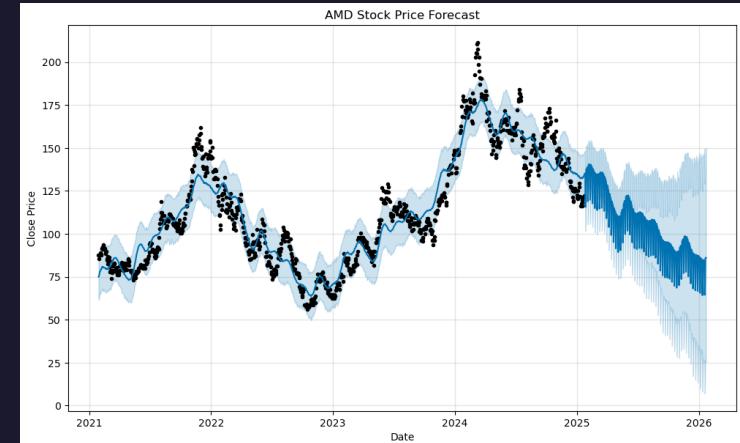


5. Prediction Analysis (4/5)

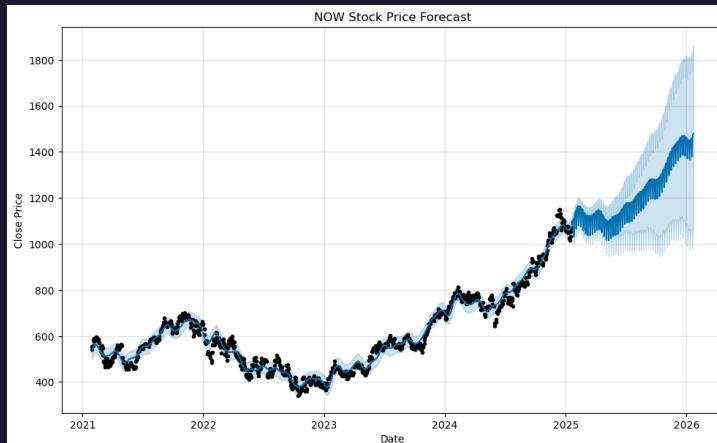
ACN



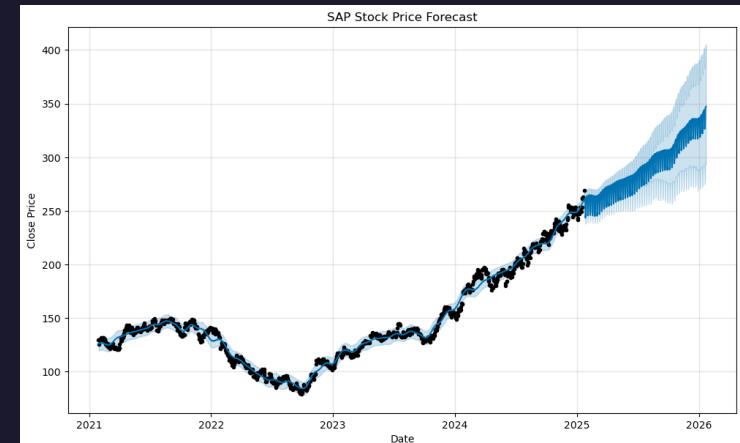
AMD



NOW



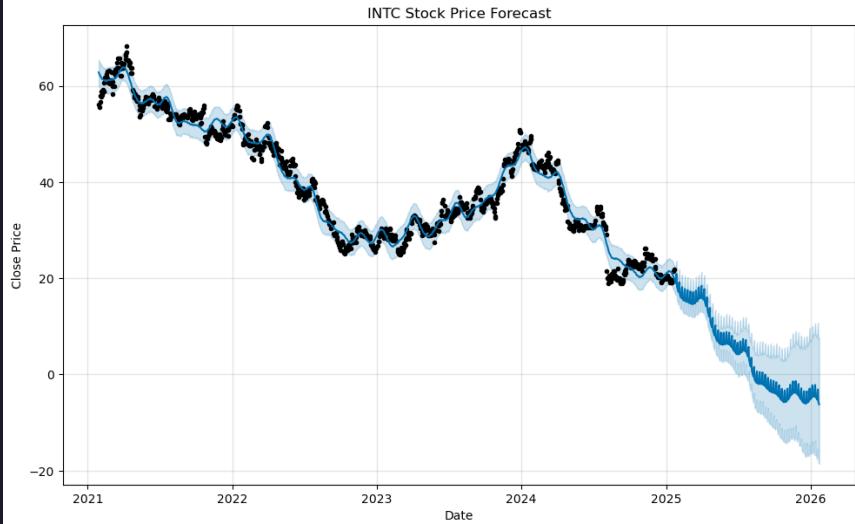
SAP



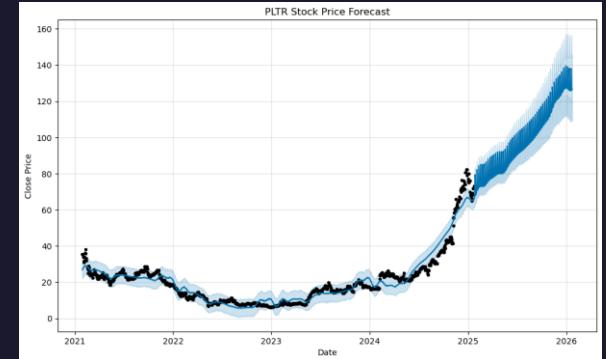
5. Prediction Analysis (5/5)



INTEL



PLTR



ARM



Recommendations

Timeframe, Diversification and Risk Assessment

Screening based on Several Criteria's

Round 1:	Round 2:	Round 3:	Round 4:
Technical Analysis	Prediction Algo	52w performance	Count Correlation > 0.9
1. MSFT	1. MSFT	1. MSFT	1. MSFT
2. AMZN	2. AMZN	2. AMZN	2. AMZN
3. NVDA	3. NVDA	3. NVDA	3. NVDA
4. META	4. META	4. META	4. META
5. GOOGL	5. GOOGL	5. GOOGL	5. GOOGL
6. IBM	6. IBM	6. IBM	6. IBM
7. TSM	7. TSM	7. TSM	7. TSM
8. ORCL	8. ORCL	8. ORCL	8. ORCL
9. ANET	9. ANET	9. ANET	9. ANET
10. AVGO	10. AVGO	10. AVGO	10. AVGO
11. NOW	11. NOW	11. NOW	11. NOW
12. SAP	12. SAP	12. SAP	12. SAP
13. PLTR	13. PLTR	13. PLTR	13. PLTR
14. ARM	14. ARM	14. ARM	14. ARM

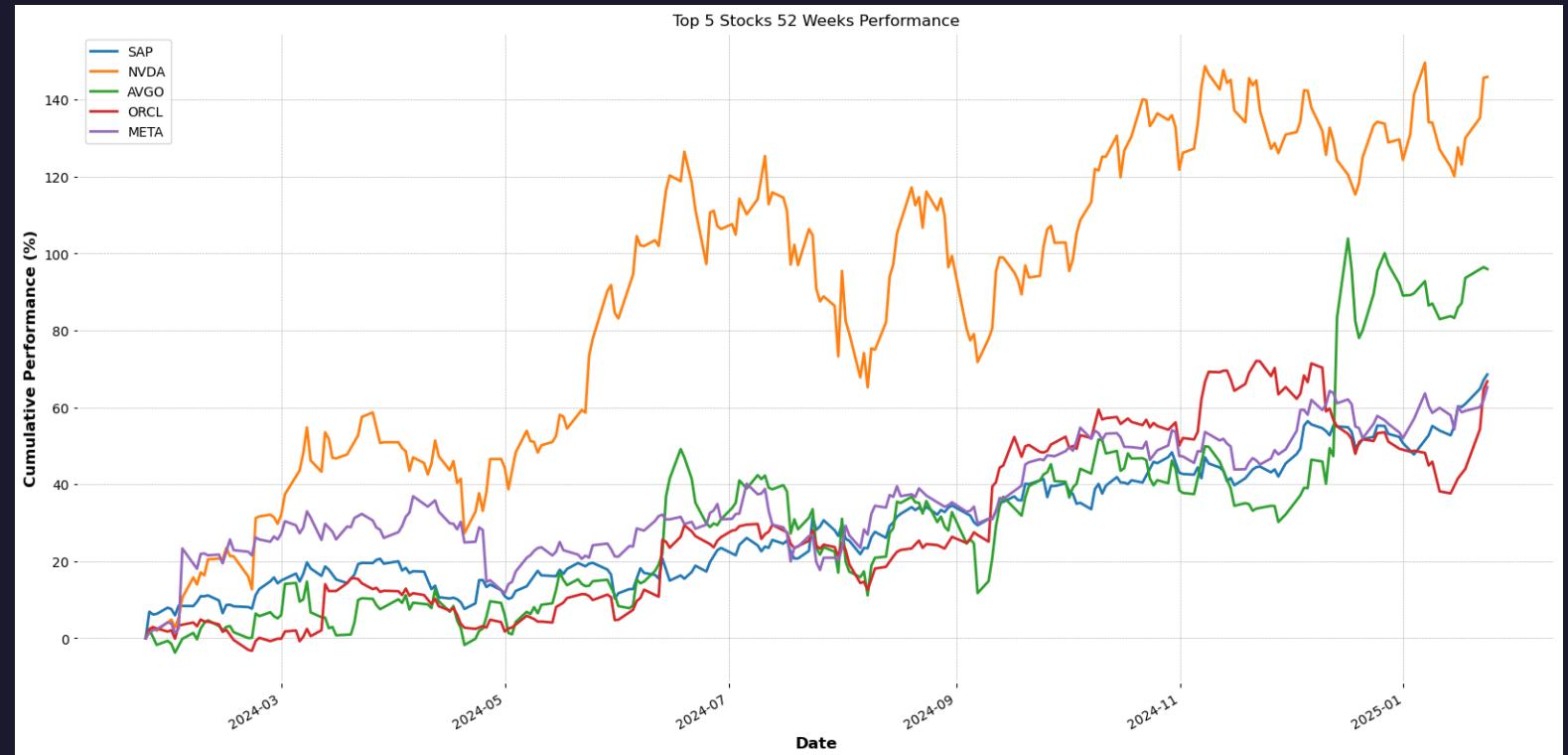
Looking at Trend,
ATR, RSI

Looking at one-
year prediction

Ranking by 52W
Performance

Ranking Corr.
Count

52 Weeks Performance



Recommendations

Short-Term vs. Long-Term:

- Short-term investment recommendations based on current trends.
- Long-term investment recommendations considering outlook.

Diversification:

- Suggested mix of Nvidia, Oracle, Arista Networks, Broadcom, and SAP stocks to spread risk.

Risk Assessment:

- Evaluation of stability and potential returns for each stock.

Recommendation is also distributed across sectors:

- **Nvidia and Broadcom – Semiconductor**
- **Oracle – Software Infrastructure (Cloud Provider)**
- **Arista Networks – Hardware Infrastructure (Networking)**
- **SAP – Supply Chain (ERP Software)**

Thank you

Austin McCormick

Devin Carter

Mehdi Afiatpour

