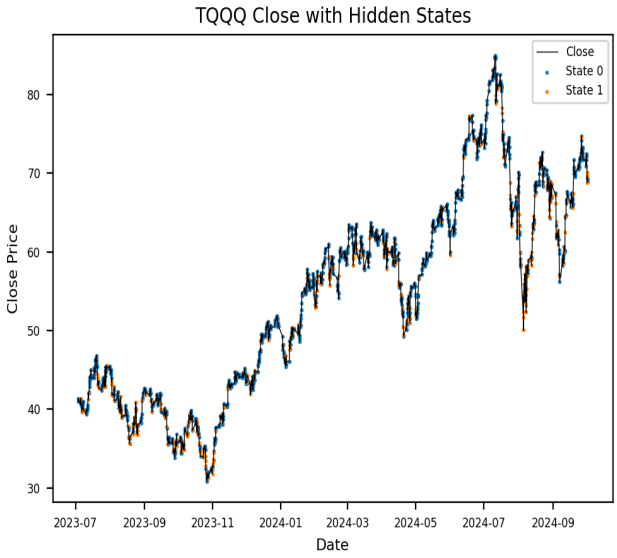
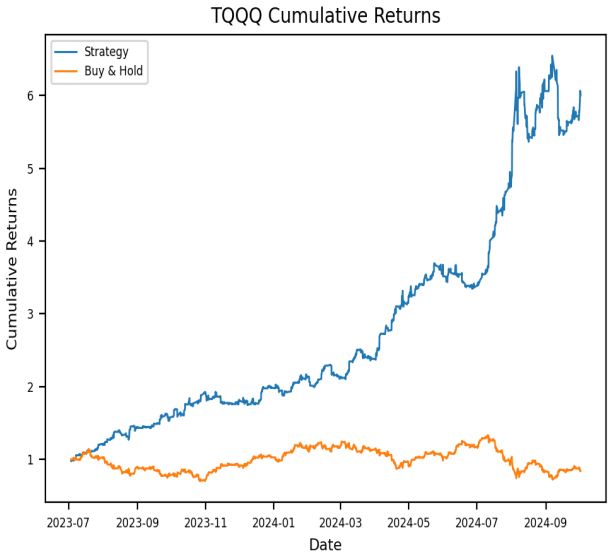
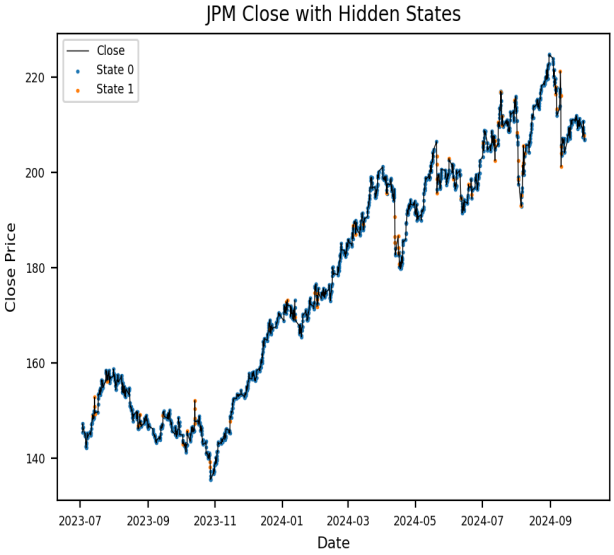
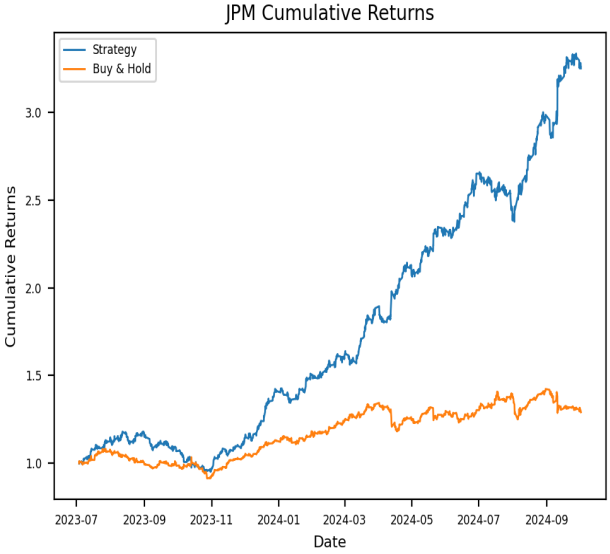
Individual HMM Model Performance Report

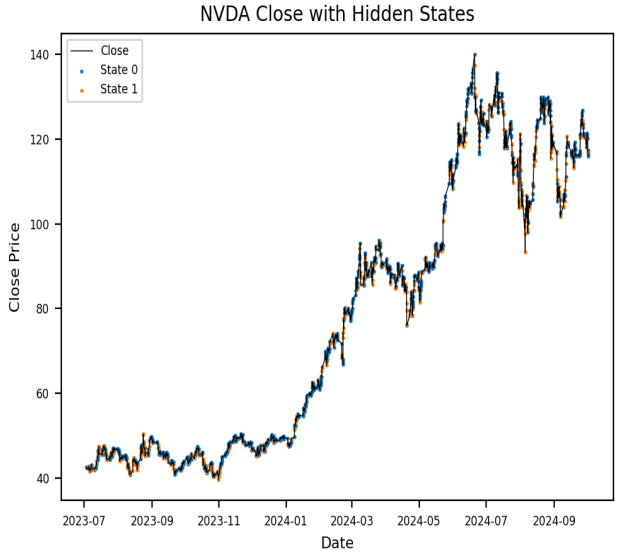
Ticker	Strategy Return	Buy & Hold Return	Outperformance	Sharpe Ratio	Max Drawdown
TQQQ	500.31%	-16.21%	516.52%	19.58	-16.68%
JPM	225.06%	29.06%	196.00%	15.61	-19.75%
NVDA	224.02%	2.33%	221.69%	9.65	-14.29%
AAPL	215.38%	12.83%	202.54%	14.68	-10.07%
V	204.97%	11.40%	193.57%	13.72	-11.74%
QQQ	192.63%	-1.23%	193.86%	17.18	-6.97%
MSFT	184.85%	-11.94%	196.78%	12.35	-8.85%
DIA	164.96%	13.47%	151.48%	12.84	-13.04%
SPY	137.48%	5.21%	132.27%	11.78	-10.18%
GOOG	106.65%	4.33%	102.32%	6.97	-19.20%
XOM	83.76%	-14.71%	98.46%	8.54	-7.39%
JNJ	-22.68%	-6.27%	-16.40%	-1.79	-38.48%
TSLA	-23.46%	-44.22%	20.76%	-0.52	-51.70%
META	-31.56%	23.30%	-54.86%	-1.87	-43.35%






JPM Close with Hidden States
Close
State 0
State 1
Close Price
Date
220
200
180
160
140
2023-07
2023-09
2023-11
2024-01
2024-03
2024-05
2024-07
2024-09


JPM Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
3.0
2.5
2.0
1.5
1.0
2023-07
2023-09
2023-11
2024-01
2024-03
2024-05
2024-07
2024-09


NVDA Close with Hidden States
Close
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State 1
Close Price
Date
140
120
100
80
60
40
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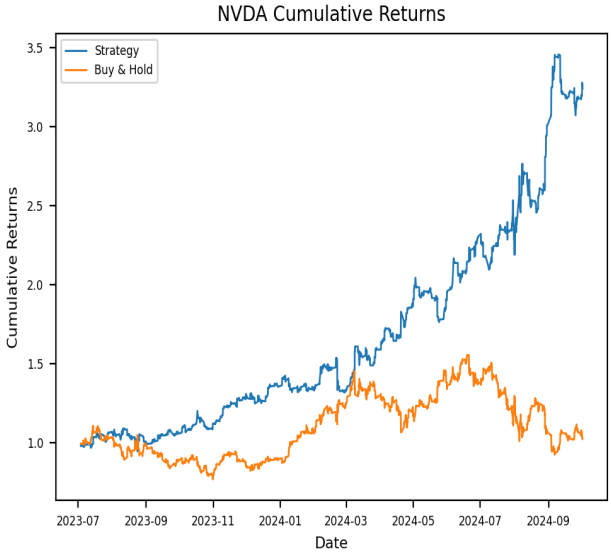
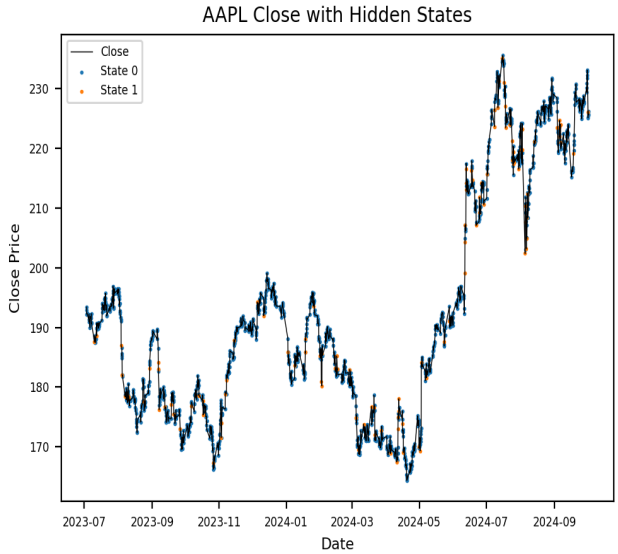
2023-09
2023-11
2024-01
2024-03
2024-05
2024-07
2024-09


NVDA Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
3.5
3.0
2.5
2.0
1.5
1.0
2023-07
2023-09
2023-11
2024-01
2024-03
2024-05
2024-07
2024-09


AAPL Close with Hidden States
Close
State 0
State 1
Close Price
Date
230
220
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200
190
180
170
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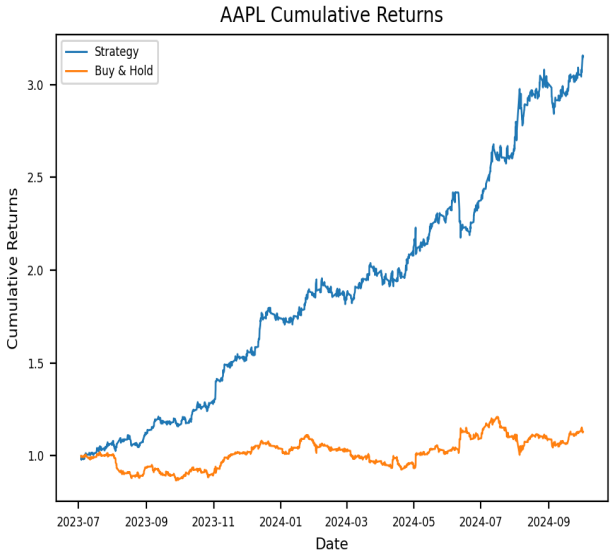
2024-03
2024-05
2024-07
2024-09


AAPL Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
3.0
2.5
2.0
1.5
1.0
2023-07
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2024-03
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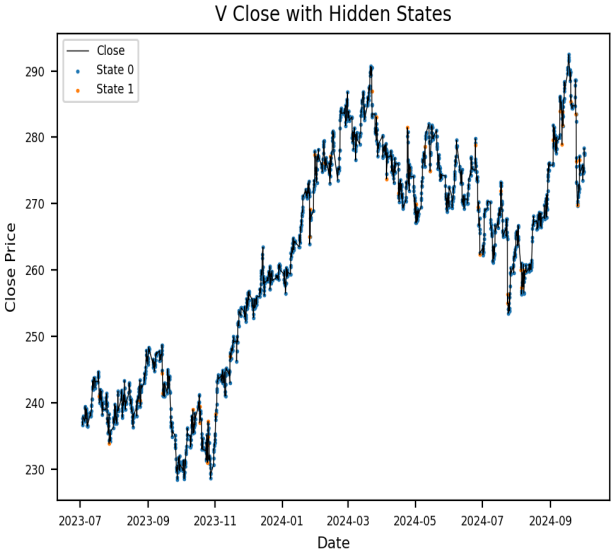
2024-09


V Close with Hidden States
Close
State 0
State 1
Close Price
290
280
270
260
250
240
230
2023-07
2023-09
2023-11
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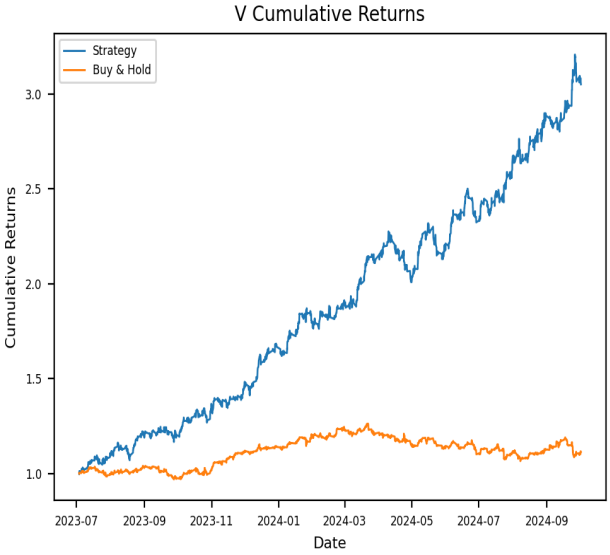
2024-09
Date


V Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
3.0
2.5
2.0
1.5
1.0
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2023-09
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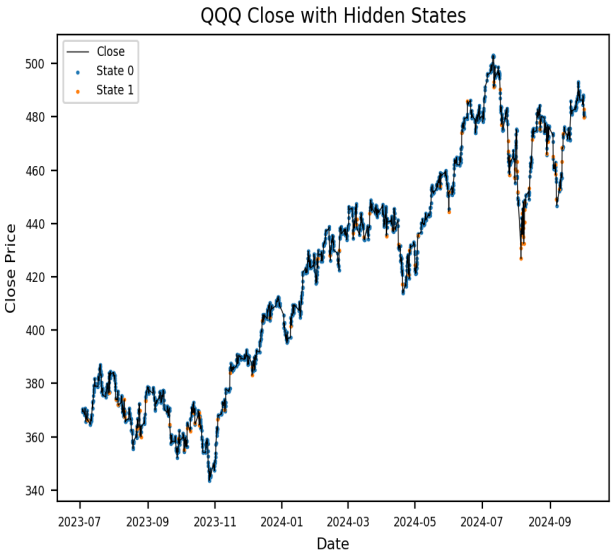
2024-09
Date


QQQ Close with Hidden States
Close
State 0
State 1
Close Price
500
480
460
440
420
400
380
360
340
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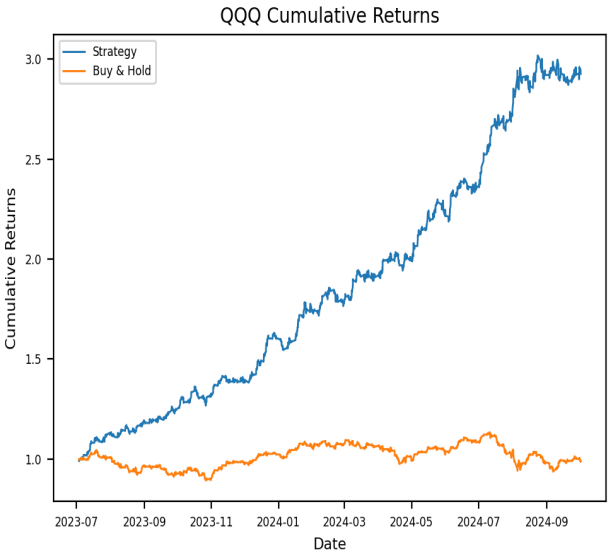
2024-07
2024-09
Date


QQQ Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
3.0
2.5
2.0
1.5
1.0
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2023-09
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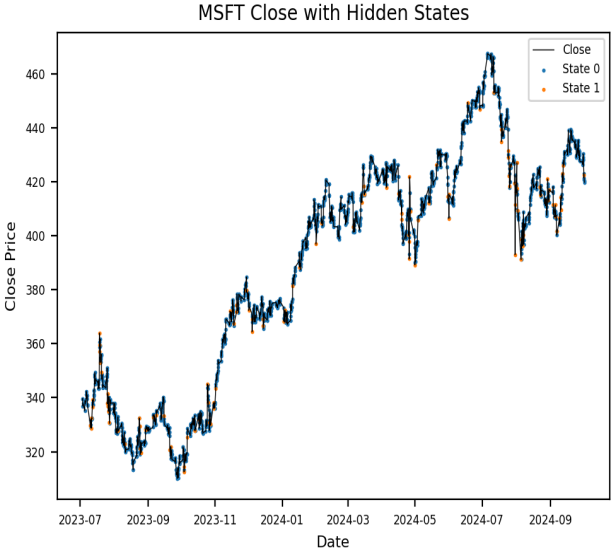
2024-03
2024-05
2024-07
2024-09
Date


MSFT Close with Hidden States
Close
State 0
State 1
Close Price
Date
460
440
420
400
380
360
340
320
2023-07
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2024-03
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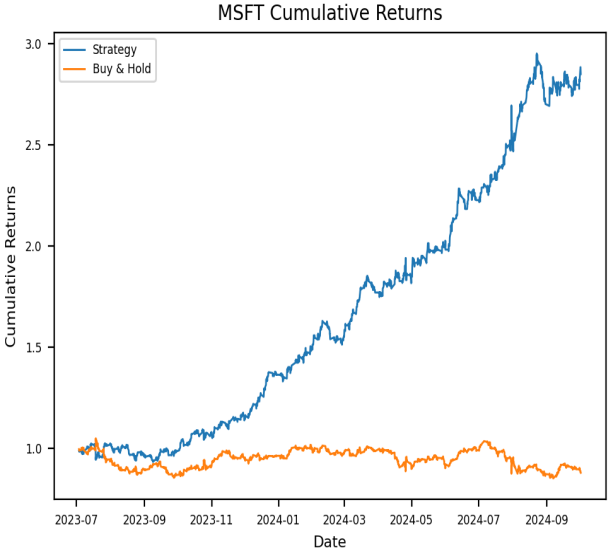
2024-09


MSFT Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
3.0
2.5
2.0
1.5
1.0
2023-07
2023-09
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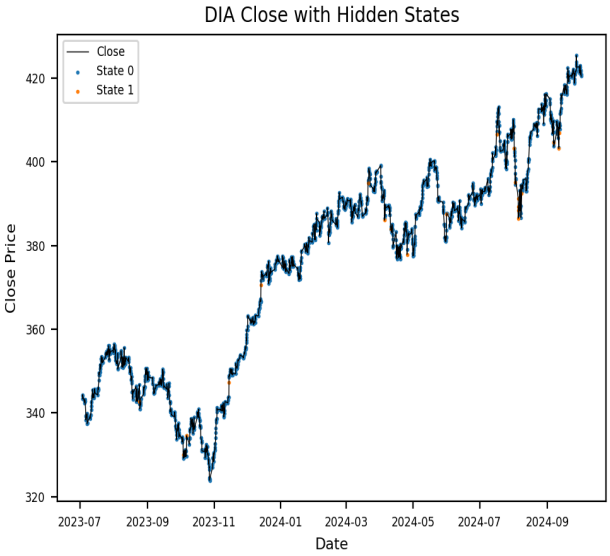
2024-07
2024-09


DIA Close with Hidden States
Close
State 0
State 1
Close Price
Date
420
400
380
360
340
320
2023-07
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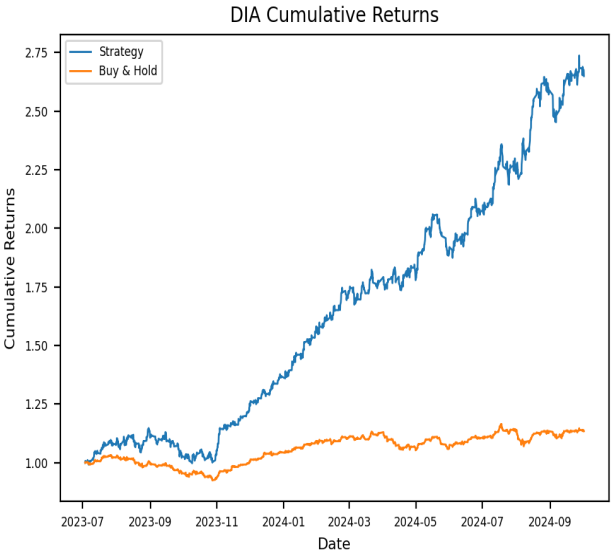
2024-01
2024-03
2024-05
2024-07
2024-09


DIA Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
2023-07
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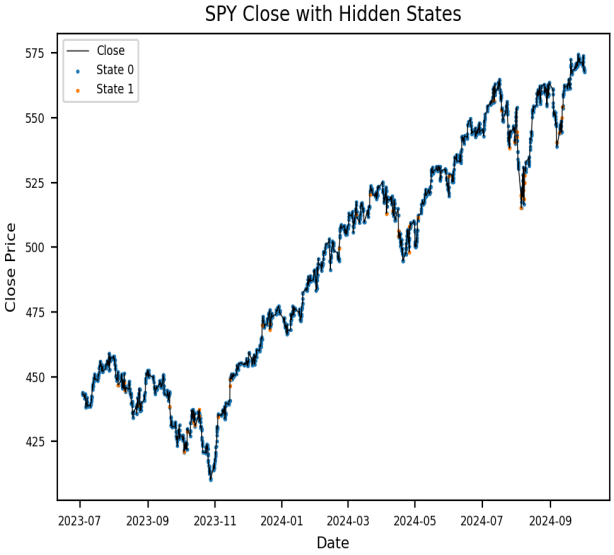
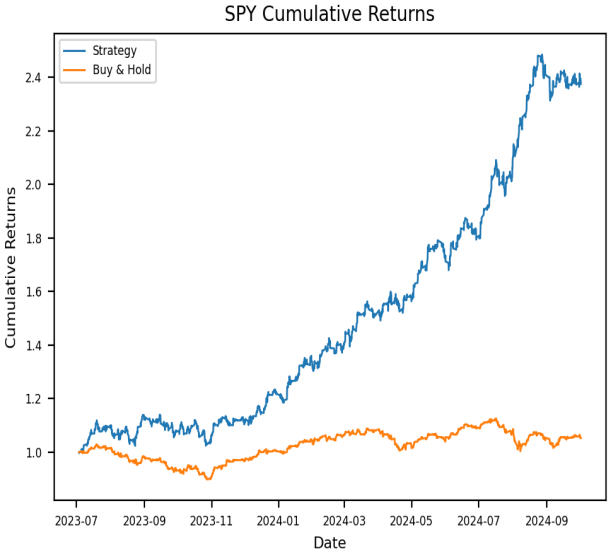
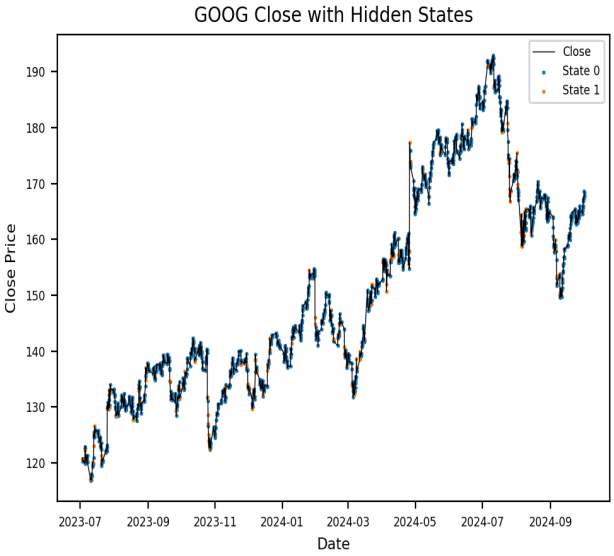
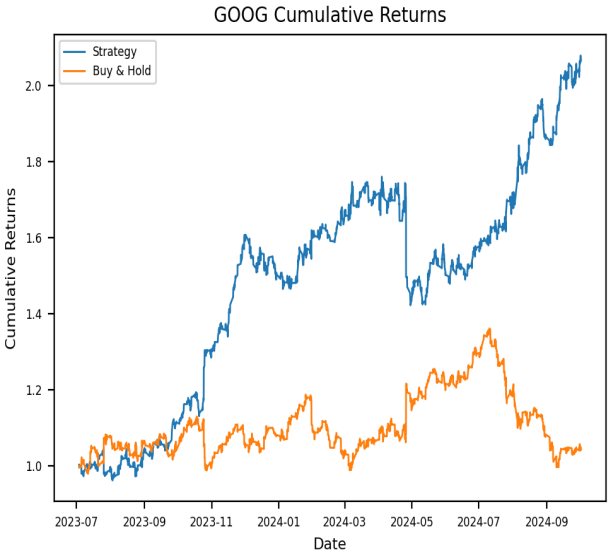
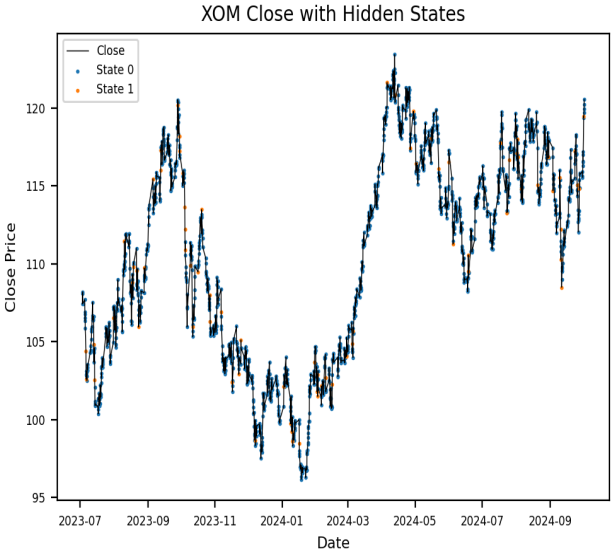
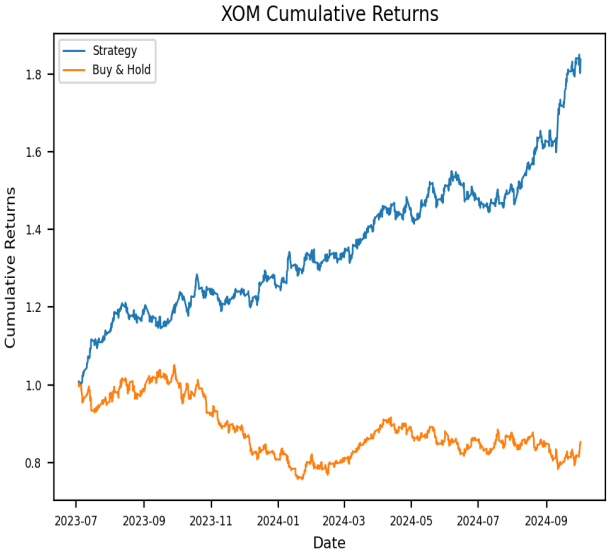

SPY Close with Hidden States
Close
State 0
State 1
Close Price
Date

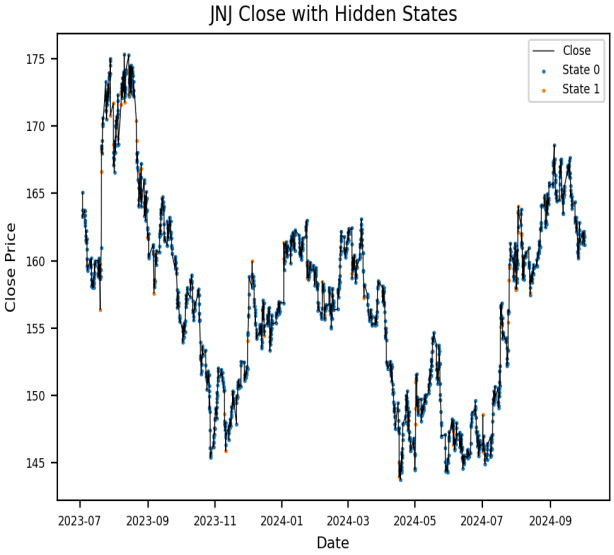

SPY Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date

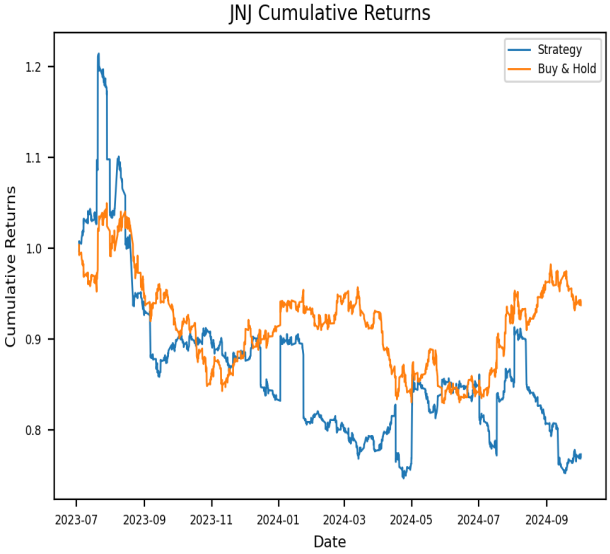

GOOG Close with Hidden States
Close
State 0
State 1
Close Price
Date

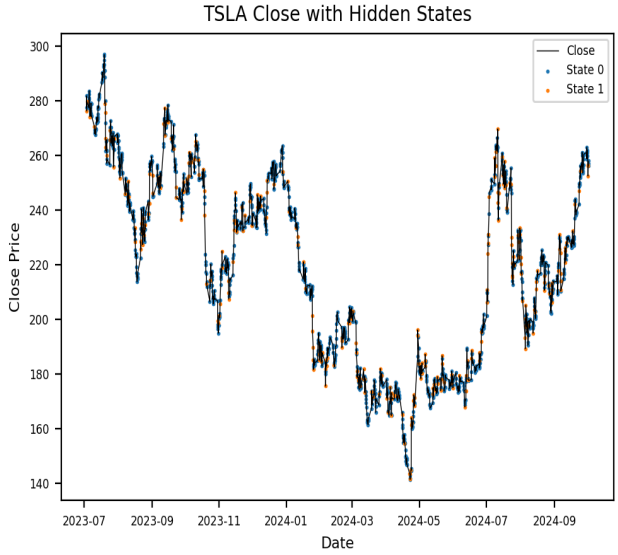

GOOG Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date


XOM Close with Hidden States
Close
State 0
State 1
Close Price
Date


XOM Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date


JNJ Close with Hidden States
Close
State 0
State 1
Close Price
Date


JNJ Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date


TSLA Close with Hidden States
Close
State 0
State 1
Close Price
Date
300
280
260
240
220
200
180
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2023-07
2023-09
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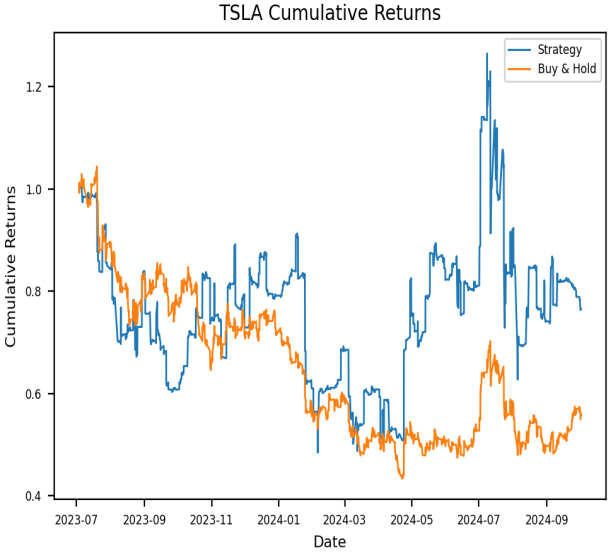
2024-09


TSLA Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
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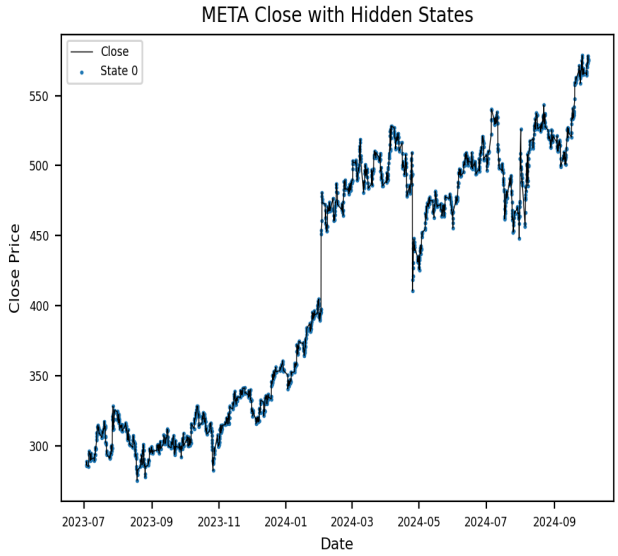
2024-09


META Close with Hidden States
Close
State 0
Close Price
Date
550
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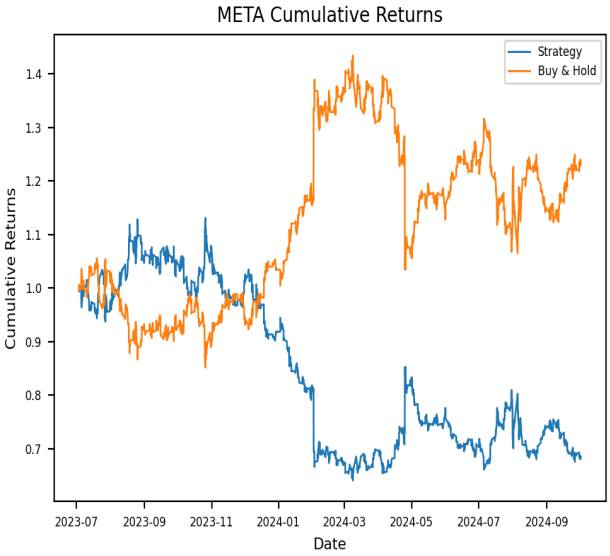
450
400
350
300
2023-07
2023-09
2023-11
2024-01
2024-03
2024-05
2024-07
2024-09


META Cumulative Returns
Strategy
Buy & Hold
Cumulative Returns
Date
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
2023-07
2023-09
2023-11
2024-01
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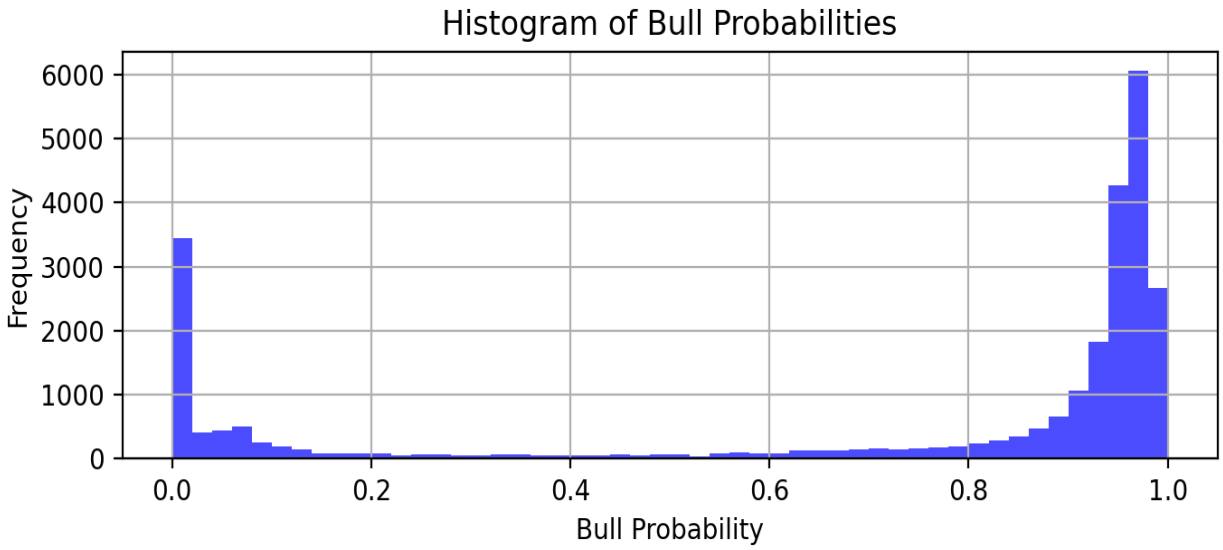
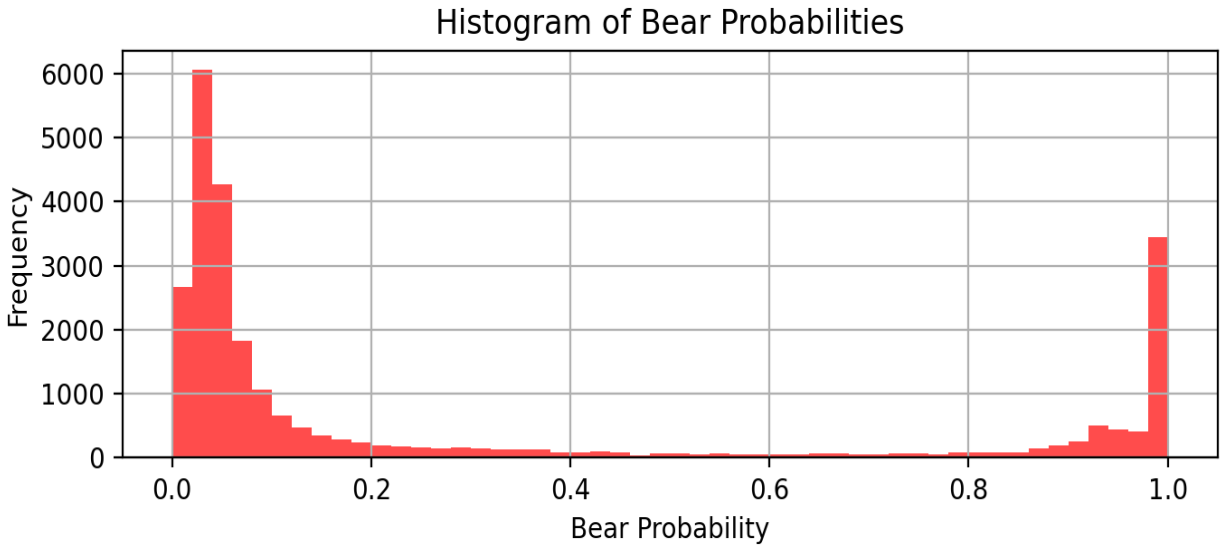
2024-05
2024-07
2024-09

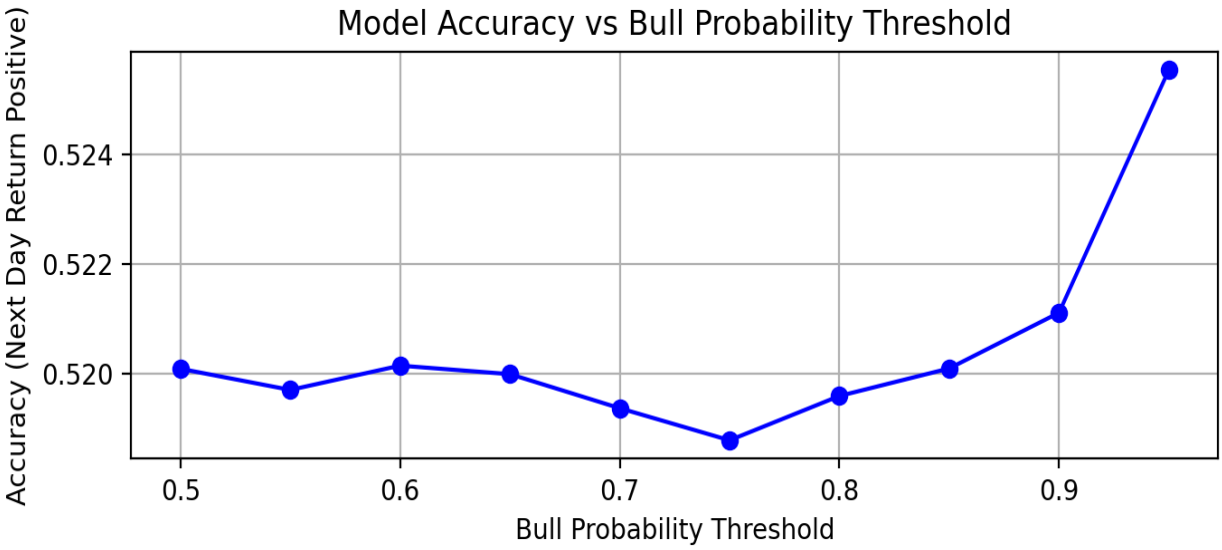
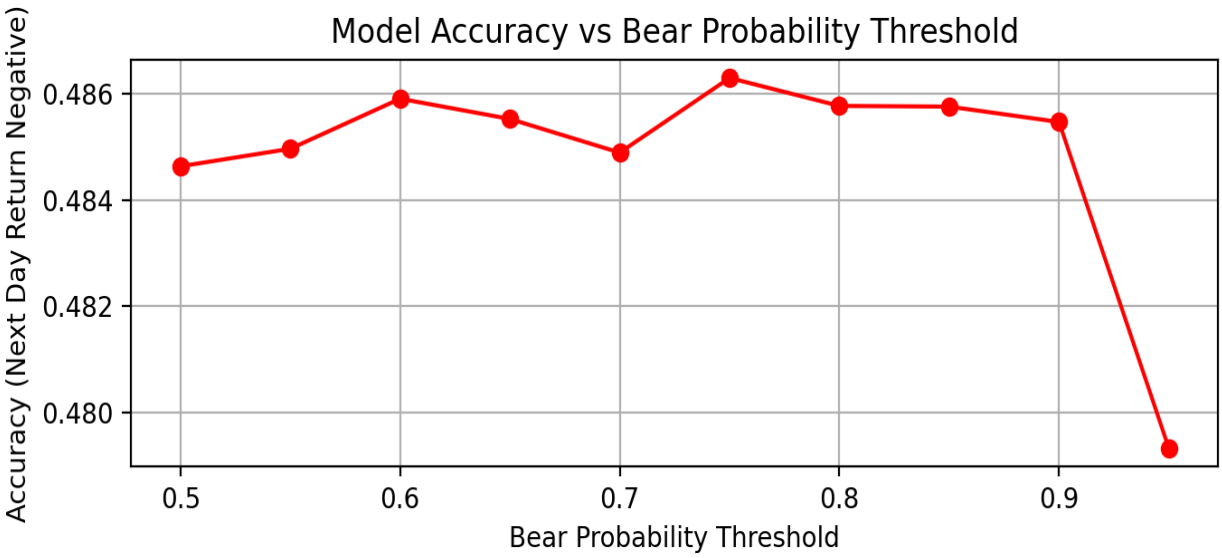
Histogram of Bull Probabilities



Histogram of Bear Probabilities



Model Accuracy vs Bull Probability Threshold



Model Accuracy vs Bear Probability Threshold