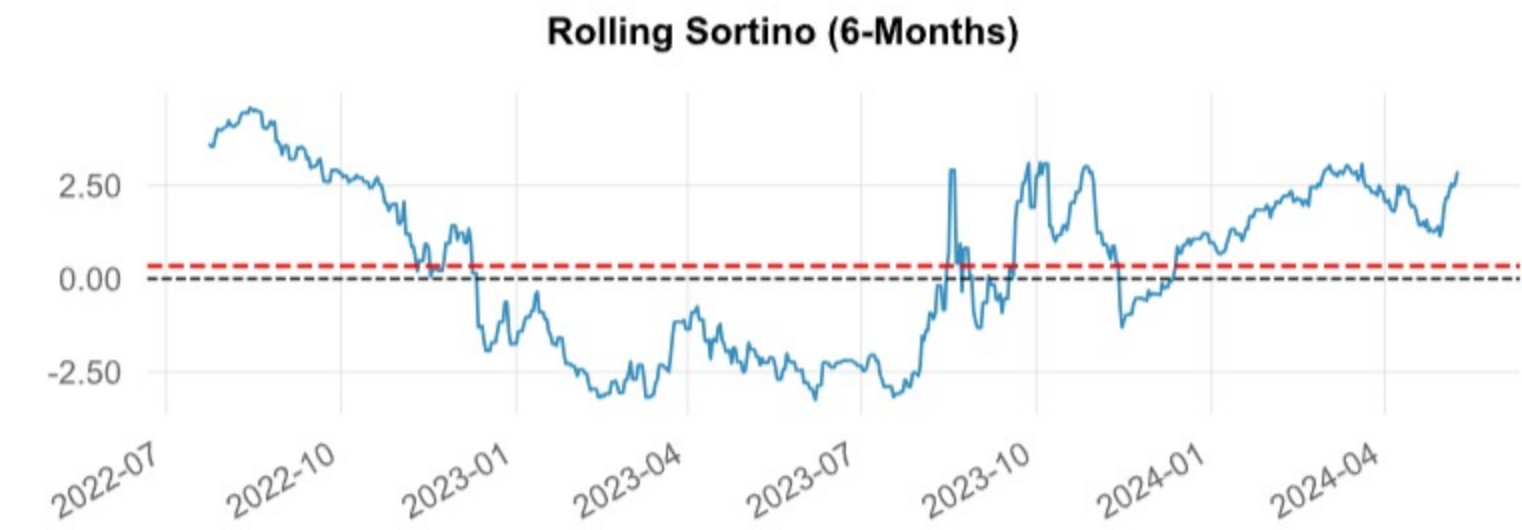
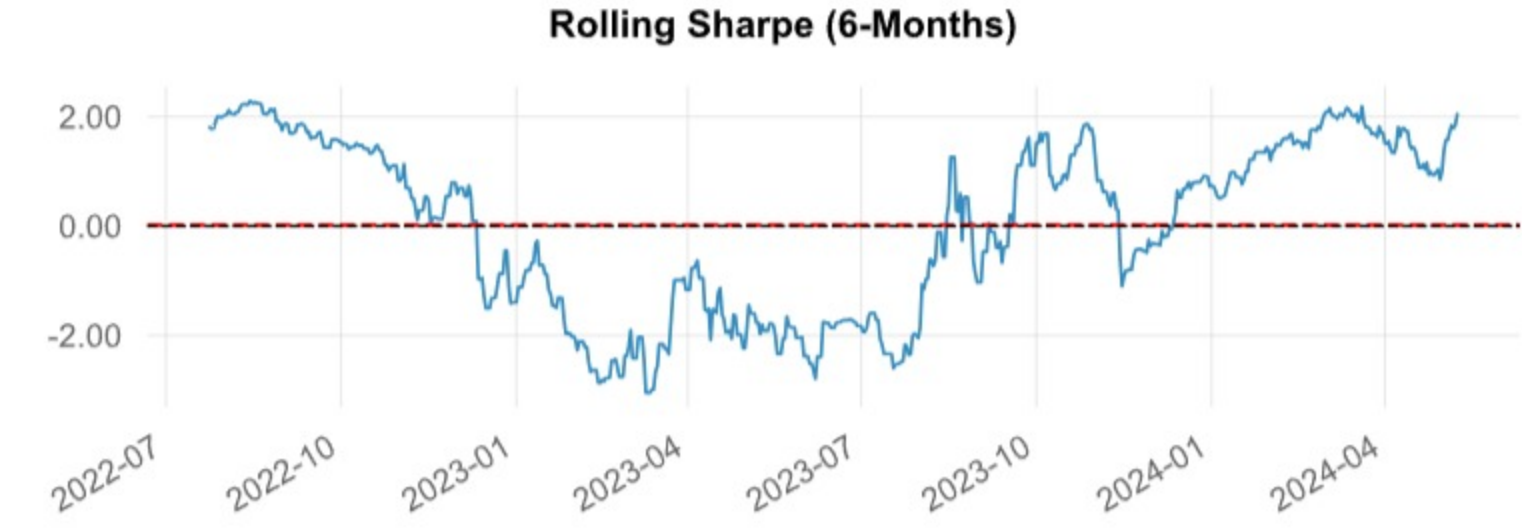
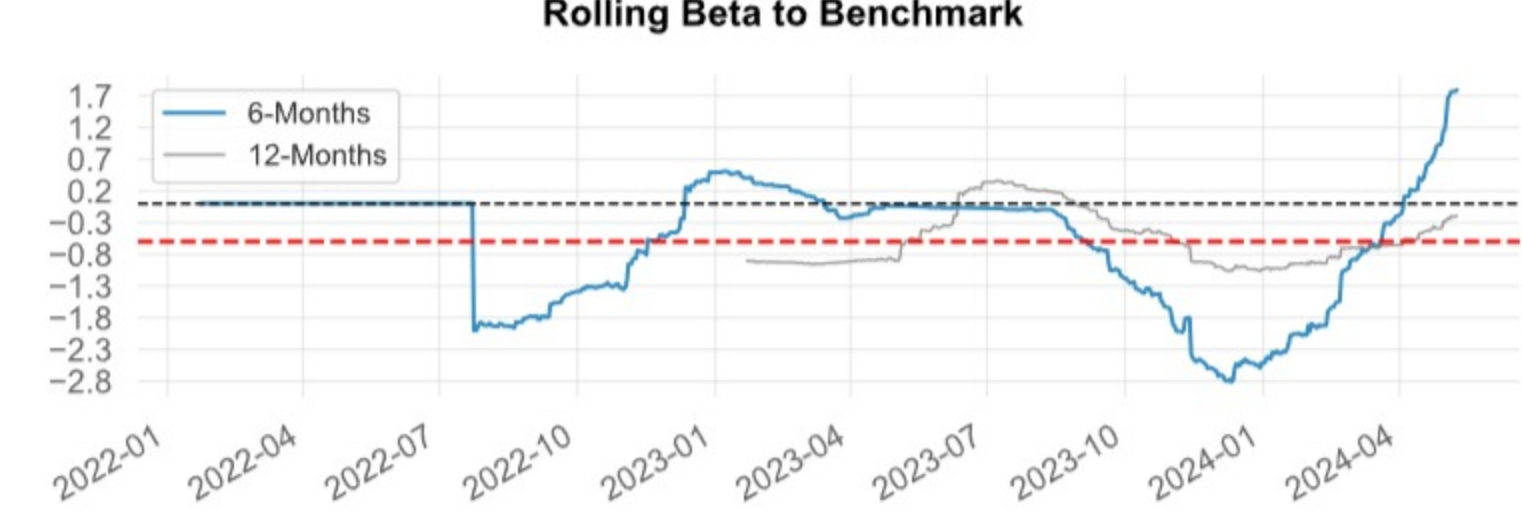
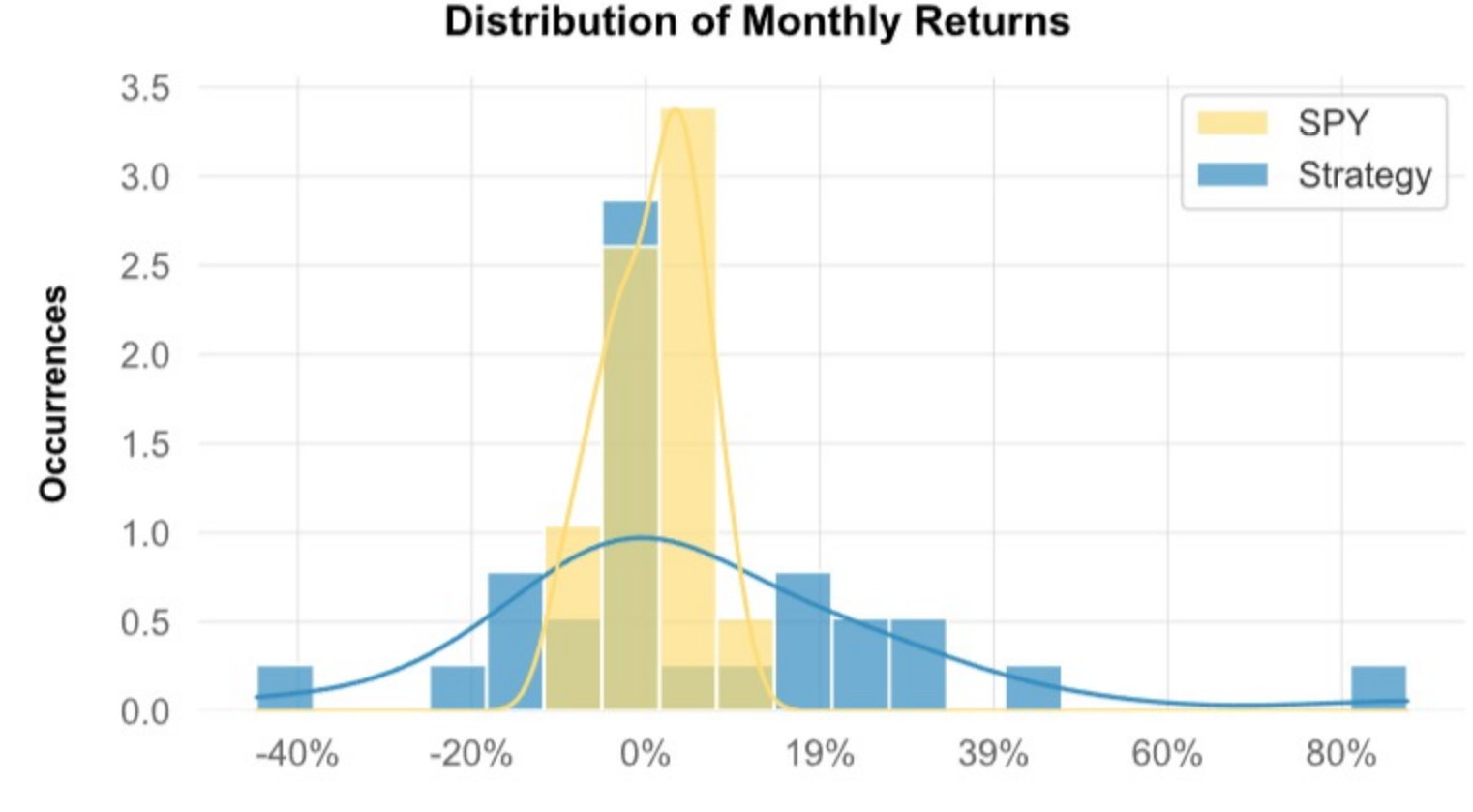
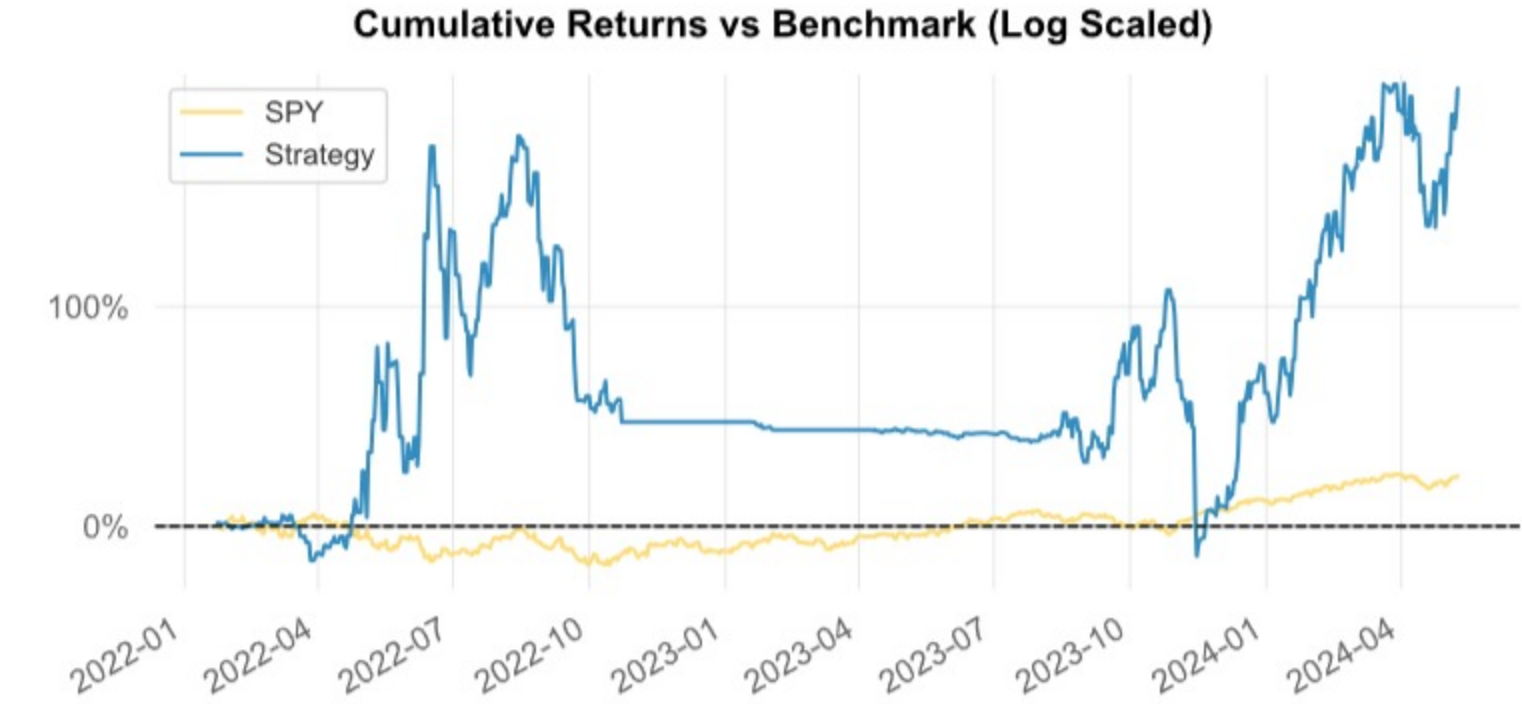
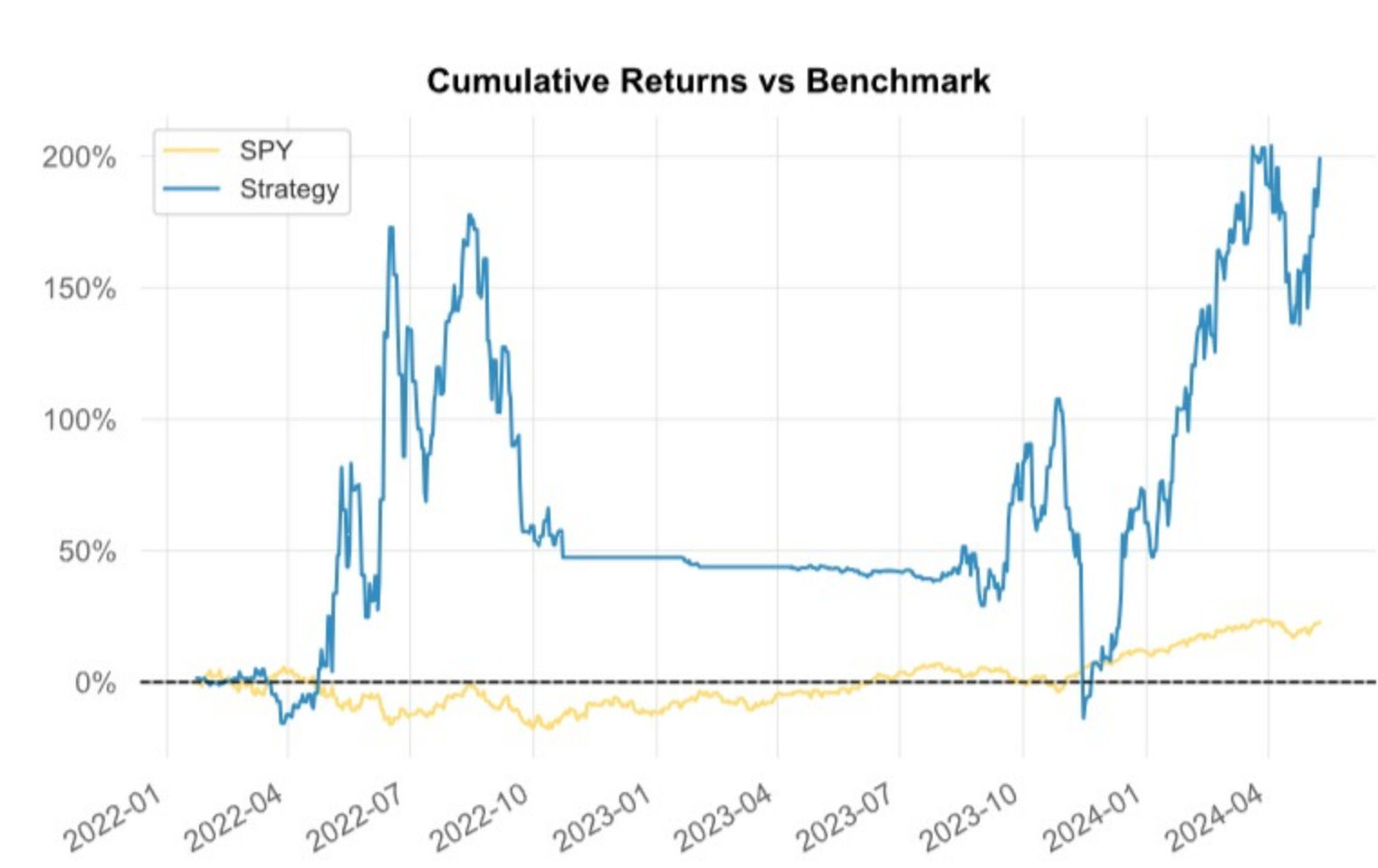


MLTrader Compared to SPY

23 Jan, 2022 - 9 May, 2024

Benchmark is SPY | Generated by [QuantStats](#) (v. 0.2.0)



Key Performance Metrics

Metric	SPY	Strategy
Risk-Free Rate	5.24%	5.24%
Time in Market	69.0%	48.0%
Total Return	22.97%	199.32%
CAGR% (Annual Return)	9.43%	61.3%
Sharpe	0.3	0.93
ROMaD	0.43	0.89
Corr to Benchmark	1.0	-0.18
Prob. Sharpe Ratio	26.12%	50.11%
Smart Sharpe	0.29	0.89
Sortino	0.43	1.5
Smart Sortino	0.41	1.44
Sortino/√2	0.31	1.06
Smart Sortino/√2	0.29	1.01
Omega	1.25	1.25
Max Drawdown	-22.09%	-68.9%
Longest DD Days	475	570
Volatility (ann.)	18.53%	74.64%
R^2	0.03	0.03
Information Ratio	0.04	0.04
Calmar	0.43	0.89
Skew	-0.09	1.5
Kurtosis	3.62	20.37
Expected Daily	0.02%	0.13%
Expected Monthly	0.72%	3.85%
Expected Yearly	7.13%	44.12%
Kelly Criterion	9.37%	4.11%
Risk of Ruin	0.0%	0.0%
Daily Value-at-Risk	-1.57%	-6.22%
Expected Shortfall (cVaR)	-1.57%	-6.22%
Max Consecutive Wins	4	4
Max Consecutive Losses	4	3
Gain/Pain Ratio	0.1	0.27
Gain/Pain (1M)	0.46	1.27
Payoff Ratio	1.18	1.0
Profit Factor	1.1	1.27
Common Sense Ratio	1.16	1.44
CPC Index	0.66	0.66
Tail Ratio	1.05	1.13
Outlier Win Ratio	14.83	5.67
Outlier Loss Ratio	8.1	2.11
MTD	3.62%	23.56%
3M	4.71%	28.42%
6M	19.83%	98.46%
YTD	10.4%	86.38%
1Y	27.88%	108.46%
3Y (ann.)	9.43%	61.3%
5Y (ann.)	9.43%	61.3%
10Y (ann.)	9.43%	61.3%
All-time (ann.)	9.43%	61.3%
Best Day	5.5%	37.46%
Worst Day	-4.35%	-26.34%
Best Month	9.13%	87.56%
Worst Month	-9.24%	-44.76%
Best Year	25.5%	86.38%
Worst Year	-11.25%	8.94%
Avg. Drawdown	-2.96%	-16.31%
Avg. Drawdown Days	35	54
Recovery Factor	1.11	2.5
Ulcer Index	0.1	0.37
Serenity Index	0.11	0.27
Avg. Up Month	3.74%	19.73%
Avg. Down Month	-4.21%	-12.2%
Win Days	50.96%	51.99%
Win Month	62.07%	50.0%
Win Quarter	60.0%	40.0%
Win Year	66.67%	100.0%
Beta	-	-0.71
Alpha	-	0.83
Correlation	-	-17.62%
Treynor Ratio	-	-273.43%

EOY Returns vs Benchmark

Year	SPY	Strategy	Multiplier	Won
2022	-11.25%	47.42%	-4.21	+
2023	25.50%	8.94%	0.35	-
2024	10.40%	86.38%	8.30	+

Worst 10 Drawdowns

Started	Recovered	Drawdown	Days
2022-08-16	2024-03-07	-68.90%	570
2022-06-19	2022-08-13	-38.16%	56
2022-05-19	2022-06-11	-31.93%	24
2024-04-04	2024-05-09	-22.36%	36
2022-05-12	2022-05-17	-20.83%	6
2022-03-09	2022-04-23	-19.69%	46
2022-05-03	2022-05-04	-16.81%	2
2024-03-13	2024-03-19	-6.74%	7
2022-04-27	2022-04-30	-5.38%	4
2024-03-21	2024-04-02	-5.22%	13

Parameters Used

Parameter	Value
symbol	SPY
cash_at_risk	0.5