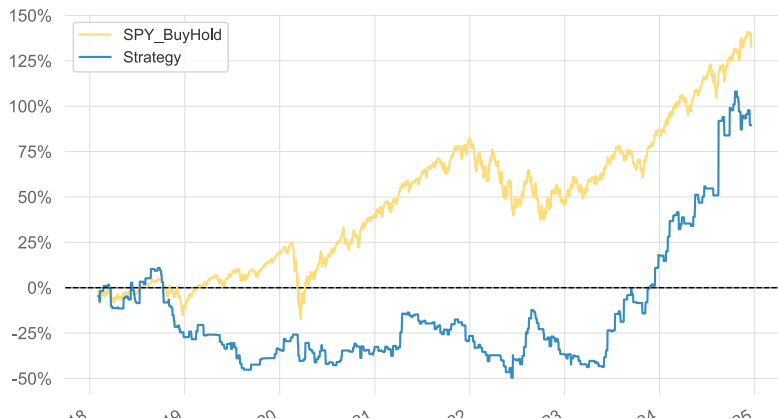


STRAT Options Strategy vs SPY Buy-and-Hold

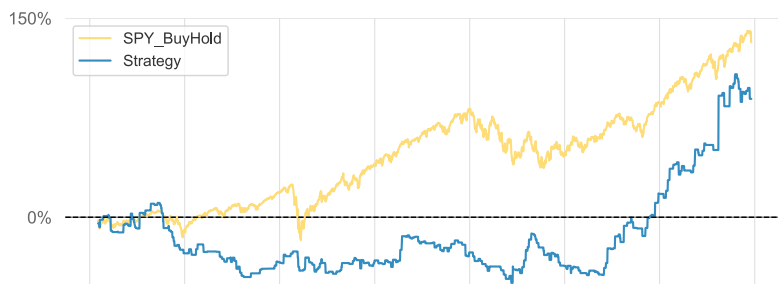
2 Feb, 2018 - 19 Dec, 2024

Benchmark is SPY_BUYHOLD | Generated by [QuantStats](#) (v. 0.0.77)

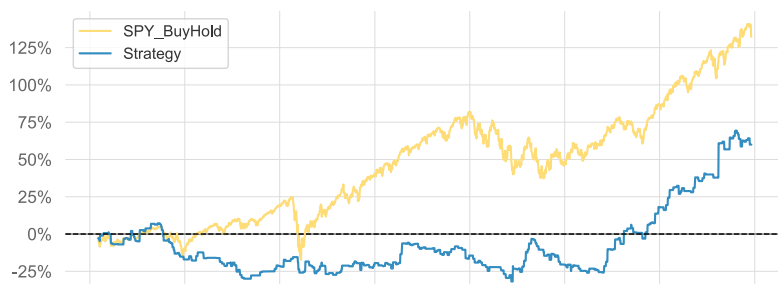
Cumulative Returns vs Benchmark



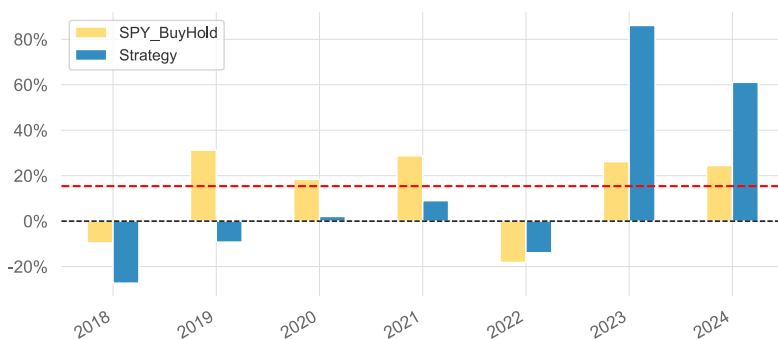
Cumulative Returns vs Benchmark (Log Scaled)



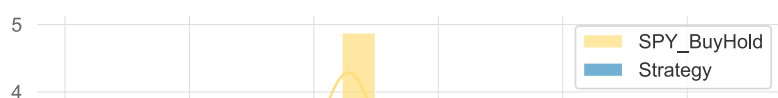
Cumulative Returns vs Benchmark (Volatility Matched)



EOY Returns vs Benchmark



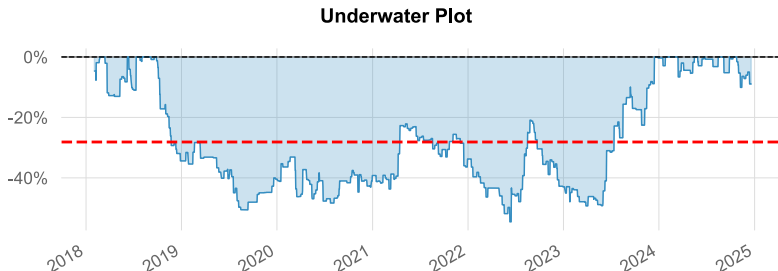
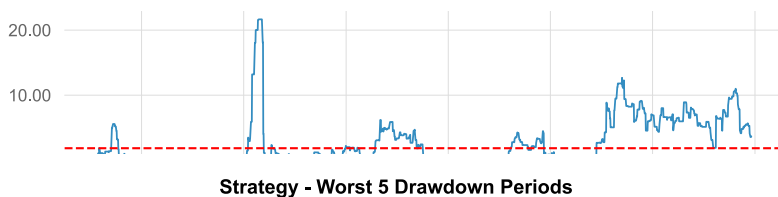
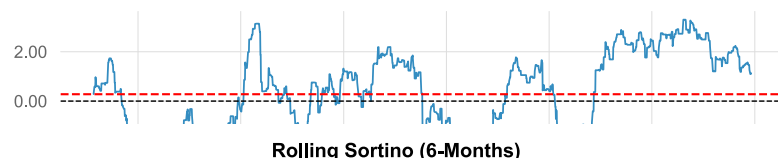
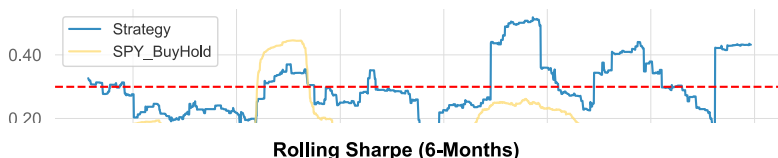
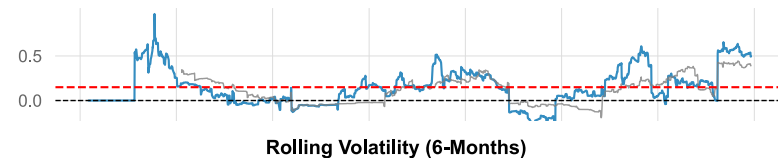
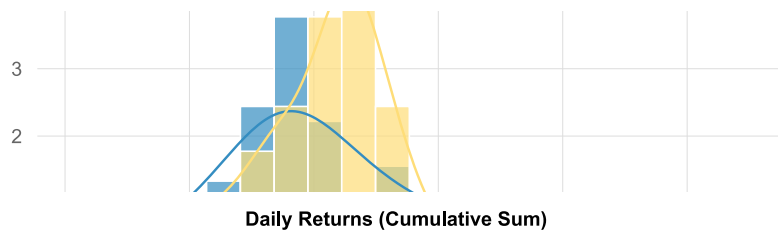
Distribution of Monthly Returns



Key Performance Metrics

Metric	SPY_BuyHold	Strategy
Risk-Free Rate	0.0%	0.0%
Time in Market	97.0%	18.0%
Cumulative Return	132.32%	89.52%
CAGR %	12.56%	9.39%
Sharpe	0.71	0.44
Prob. Sharpe Ratio	96.94%	88.98%
Smart Sharpe	0.71	0.43
Sortino	0.99	0.78
Smart Sortino	0.98	0.77
Sortino/ $\sqrt{2}$	0.7	0.55
Smart Sortino/ $\sqrt{2}$	0.69	0.55
Omega	1.21	1.21
Max Drawdown	-33.72%	-54.53%
Max DD Date	2020-03-23	2022-06-10
Max DD Period Start	2020-02-20	2018-09-27
Max DD Period End	2020-08-07	2023-12-14
Longest DD Days	708	1905
Volatility (ann.)	19.23%	31.3%
R ²	0.0	0.0
Information Ratio	-0.0	-0.0
Calmar	0.37	0.17
Skew	-0.55	3.84
Kurtosis	12.11	47.37
Expected Daily	0.05%	0.04%
Expected Monthly	1.02%	0.77%
Expected Yearly	12.8%	9.56%
Kelly Criterion	-0.26%	3.76%
Risk of Ruin	0.0%	0.0%
Daily Value-at-Risk	-1.94%	-3.19%
Expected Shortfall (cVaR)	-4.57%	-4.57%

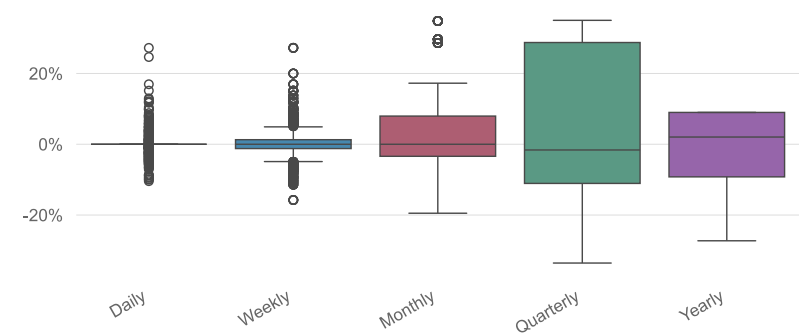
Max Consecutive Wins	10	2
Max Consecutive Losses	8	2



Metric	SPY_BuyHold	Strategy
Gain/Pain Ratio	0.15	0.21
Gain/Pain (1M)	0.79	0.39
Payoff Ratio	0.81	1.25
Profit Factor	1.15	1.21
Common Sense Ratio	1.02	0.96
CPC Index	0.51	0.7
Tail Ratio	0.89	0.79
Outlier Win Ratio	7.28	15.65
Outlier Loss Ratio	5.2	1.56
MTD	-2.73%	-3.09%
3M	4.72%	3.06%
6M	7.53%	26.15%
YTD	24.47%	61.07%
1Y	25.35%	70.89%
3Y (ann.)	10.08%	38.71%
5Y (ann.)	13.4%	21.01%
10Y (ann.)	12.56%	9.39%
All-time (ann.)	12.56%	9.39%
Best Day	9.06%	27.23%
Worst Day	-10.94%	-10.42%
Best Month	12.7%	34.83%
Worst Month	-12.49%	-19.49%
Best Year	31.22%	86.09%
Worst Year	-18.18%	-27.27%
Avg. Drawdown	-1.94%	-9.24%
Avg. Drawdown Days	18	177
Recovery Factor	2.89	1.78
Ulcer Index	0.08	0.33
Serenity Index	0.89	0.11
Avg. Up Month	4.46%	10.42%
Avg. Down Month	-5.09%	-6.97%
Win Days	55.15%	46.58%
Win Month	66.27%	43.9%
Win Quarter	75.0%	50.0%
Win Year	71.43%	57.14%
Beta	-	0.07
Alpha	-	0.13
Correlation	-	4.42%
Treynor Ratio	-	1243.54%

2019	1.01	1.98	0.78	0.88	1.12	0.71	0.88	1.01	0.72	0.88	0.27	1.01
2020	6.79	5.16	-19.49	10.40	-5.83	-6.55	-1.24	14.15	-1.00	4.37	-3.32	3.15
2021	-3.10	0.97	0.55	28.61	-0.60	-4.02	-1.29	-2.29	-1.97	3.85	1.32	-9.25
2022	-8.90	-3.40	-2.85	-0.06	-14.89	12.22	12.38	29.68	-11.65	-5.94	-3.01	-10.17
2023	-3.32	-2.38	-5.77	4.98	-4.61	34.83	14.62	10.28	-4.16	-6.68	17.25	16.92
2024	4.00	10.10	0.74	0.47	0.10	5.00	0.47	20.64	0.00	4.75	0.45	0.00

Strategy - Return Quantiles



EOY Returns vs Benchmark

Year	SPY_BuyHold	Strategy	Multiplier	Won
2018	-11.14%	-27.27%	2.45	-
2019	31.22%	-9.22%	-0.30	-
2020	18.33%	2.04%	0.11	-
2021	28.73%	8.99%	0.31	-
2022	-18.18%	-13.90%	0.76	+
2023	26.18%	86.09%	3.29	+
2024	24.47%	61.07%	2.50	+

Worst 10 Drawdowns

Started	Recovered	Drawdown	Days
2018-09-27	2023-12-14	-54.53%	1905
2018-03-15	2018-06-07	-13.05%	85
2018-06-14	2018-07-11	-11.00%	28
2024-10-25	2024-12-19	-10.07%	56
2018-02-02	2018-02-22	-7.71%	21
2024-03-15	2024-05-15	-6.61%	62
2024-09-06	2024-09-26	-5.21%	21
2024-06-26	2024-08-14	-3.19%	50
2023-12-29	2024-01-25	-2.90%	28
2024-05-29	2024-06-20	-2.90%	23

Trade-Level Metrics

\$20,649

Total P&L (82.6%)

365

Total Trades

46.3%

Win Rate (169W / 196L)

Best & Worst Trades

Best Trade	\$5,703	SPY 2-2 Up	2024-08-06
Worst Trade	\$-2,525	SPY 2-2 Up	2024-08-29

Win/Loss Analysis

Average Win	\$730	Max Win Streak	9 trades
Average Loss	\$-524	Max Loss Streak	8 trades
Profit Factor	1.20		

CALLs vs PUTs

Direction	Trades	P&L	Win Rate
CALLs (Bullish)	336	\$25,442	78.9%
PUTs (Bearish)	29	\$-4,794	62.1%

Performance by Timeframe

Timeframe	Trades	P&L	Win Rate
1D	307	\$23,981	77.2%
1W	47	\$-1,419	80.9%
1M	11	\$-1,913	72.7%

Performance by Symbol

Symbol	Trades	P&L	Win Rate
SPY	365	\$20,649	77.5%

Performance by Pattern Type

Pattern	Trades	P&L	Win Rate
2-2 Up	218	\$16,488	78.4%
2U-1-2U	40	\$6,061	85.0%
2D-1-2U	28	\$2,942	82.1%
2U-1-2D	32	\$1,667	71.9%
3-1-2 Down	9	\$621	44.4%
3-1-2 Up	18	\$-1,715	77.8%
2D-1-2D	20	\$-5,414	70.0%

Starting Capital: \$25,000 | Generated by ATLAS STRAT Options Backtest