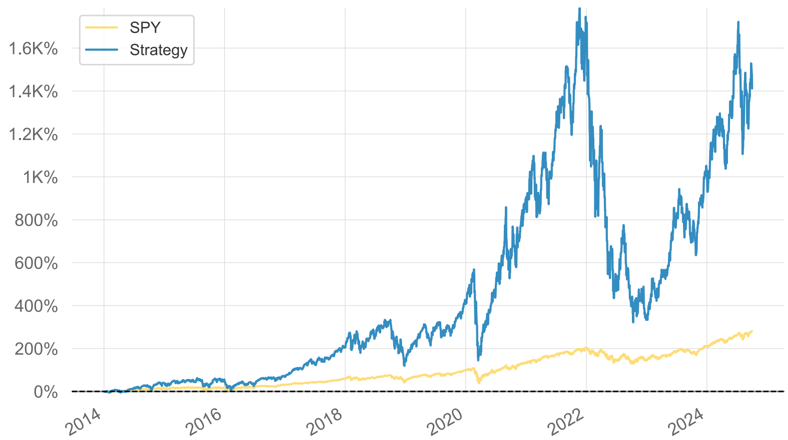
StockExampleAlgo Compared to SPY 3 Jan, 2014 - 1 Oct, 2024

Benchmark is SPY | Generated by QuantStats (v. 0.3.3)

Cumulative Returns vs Benchmark

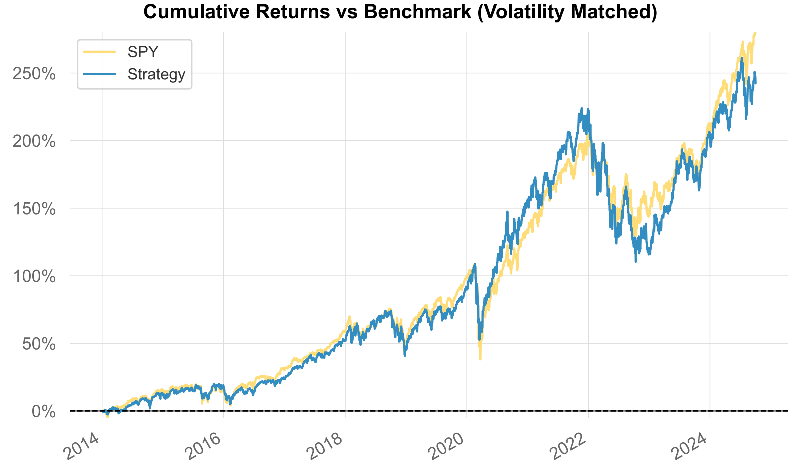


Annual Return ⓘ

28.74%

Total Return ⓘ	Max Drawdown ⓘ
1,411%	-77.66%
RoMaD ⓘ	Longest DD Days ⓘ
0.37	1044
Sharpe ⓘ	Sortino ⓘ
0.67	0.93

Cumulative Returns vs Benchmark (Volatility Matched)



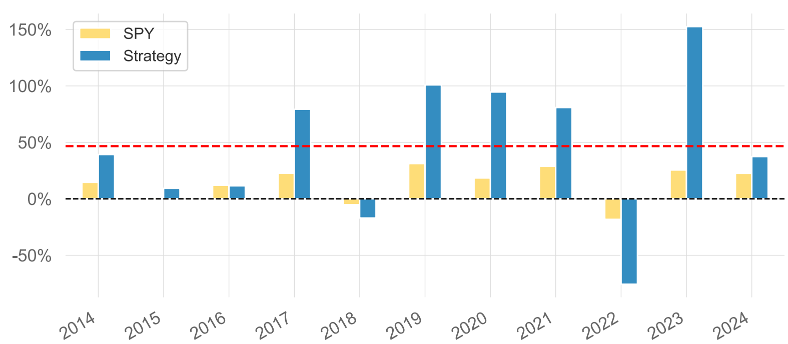
Parameters Used

Parameter	Value
config_file_name	tqqq_spy
symbols	['TQQQ', 'SPY']

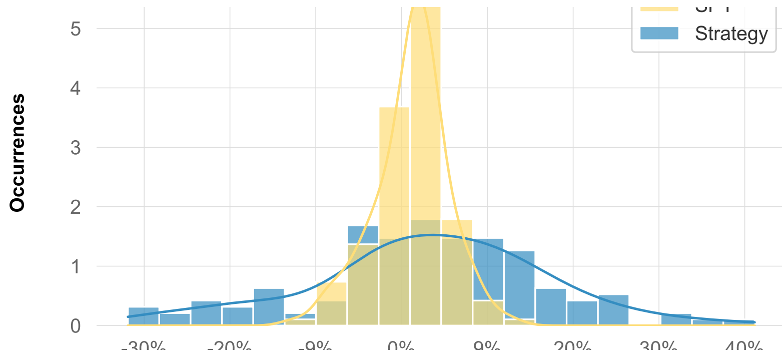
Key Performance Metrics

Metric	SPY	Strategy
Risk-Free Rate	4.48%	4.48%
Time in Market	69.0%	60.0%
Total Return	280%	1,411%
CAGR% (Annual Return)	13.23%	28.74%
Sharpe	0.55	0.67
RoMaD	0.39	0.37
Corr to Benchmark	1.0	0.45
Prob. Sharpe Ratio	43.88%	36.65%
Smart Sharpe	0.53	0.64
Sortino	0.77	0.93
Smart Sortino	0.74	0.89
Sortino/√2	0.54	0.66

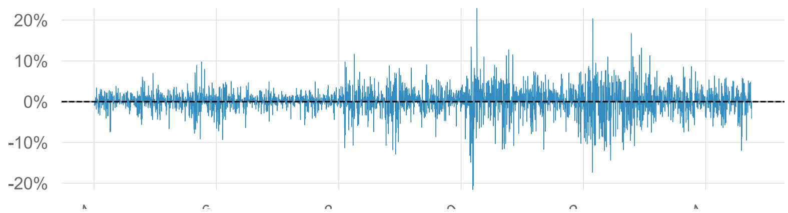
EOY Returns vs Benchmark



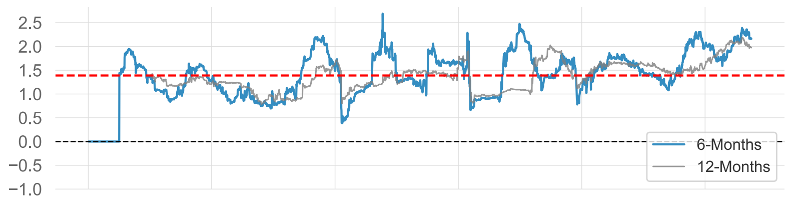
Distribution of Monthly Returns



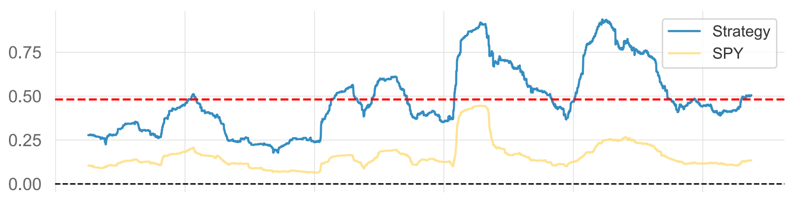
Daily Returns



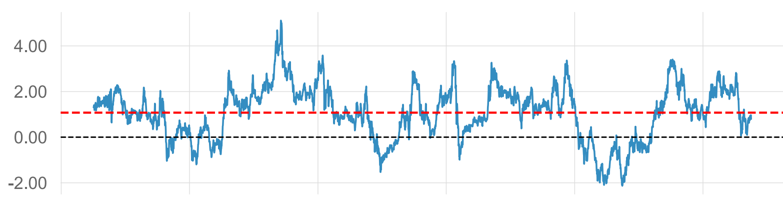
Rolling Beta to Benchmark



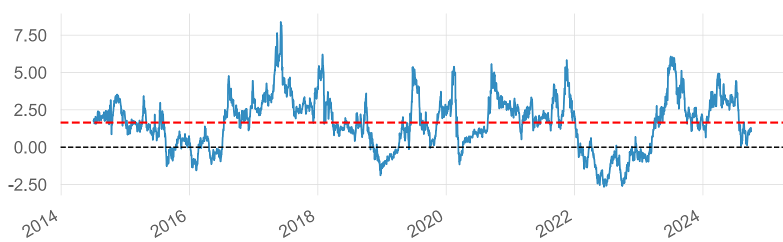
Rolling Volatility (6-Months)



Rolling Sharpe (6-Months)

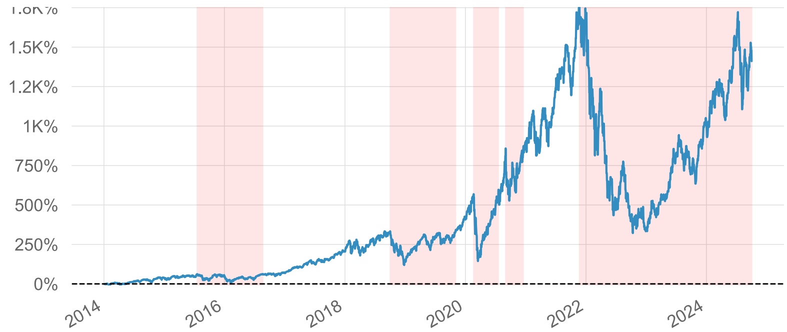


Rolling Sortino (6-Months)

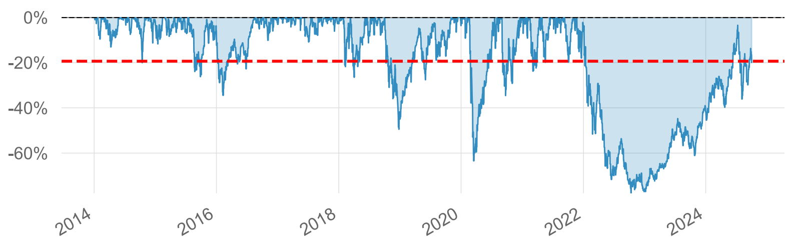


Strategy - Worst 5 Drawdown Periods

Metric	SPY	Strategy
Smart Sortino/√2	0.52	0.63
Omega	1.14	1.14
Max Drawdown	-33.68%	-77.66%
Longest DD Days	708	1044
Volatility (ann.)	17.21%	51.31%
R^2	0.2	0.2
Information Ratio	0.03	0.03
Calmar	0.39	0.37
Skew	-0.61	-0.37
Kurtosis	20.24	9.0
Expected Daily%	0.03%	0.07%
Expected Monthly%	1.03%	2.11%
Expected Yearly%	12.91%	28.0%
Daily Value-at-Risk	-1.44%	-4.31%
Expected Shortfall (cVaR)	-1.44%	-4.31%
MTD	0.0%	-4.15%
3M	5.54%	-6.02%
6M	10.58%	14.62%
YTD	22.55%	37.42%
1Y	36.05%	80.37%
3Y (ann.)	9.53%	-3.11%
5Y (ann.)	15.67%	29.19%
10Y (ann.)	13.28%	28.44%
All-time (ann.)	13.23%	28.74%
Best Day	9.06%	22.91%
Worst Day	-10.94%	-21.58%
Best Month	12.7%	41.15%
Worst Month	-12.44%	-31.89%
Best Year	31.23%	152.54%
Worst Year	-18.16%	-75.61%
Avg. Drawdown	-1.61%	-5.86%
Avg. Drawdown Days	17	27
Recovery Factor	4.44	5.34
Ulcer Index	0.07	0.29

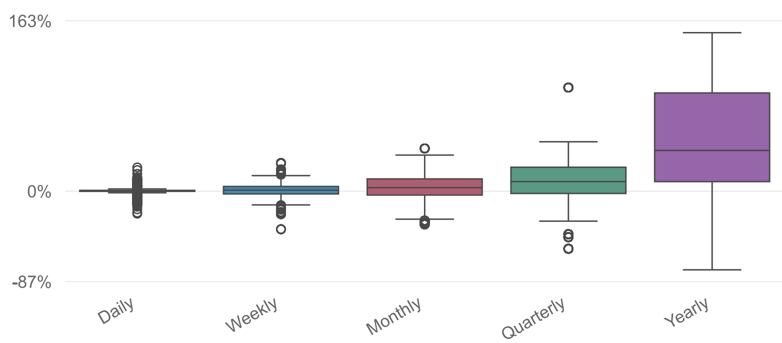


Underwater Plot



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2014	-5.73	11.87	-3.38	-1.42	7.51	6.41	-0.11	11.90	-3.88	5.87	8.08	-1.44
2015	-6.44	14.87	-6.24	4.48	3.33	-3.67	7.85	-20.94	-0.25	25.92	1.03	-3.62
2016	-17.67	-0.66	11.26	-3.70	6.47	-4.19	15.37	1.31	2.55	-2.31	4.03	2.40
2017	7.47	11.19	3.01	8.35	6.62	-5.39	9.34	3.53	-2.14	13.12	2.76	3.53
2018	21.28	-2.99	-18.49	4.56	15.70	1.39	6.65	13.20	-0.41	-22.55	-3.98	-21.05
2019	18.35	9.39	12.85	11.57	-20.81	21.60	2.36	-5.11	0.76	10.47	9.78	7.84
2020	14.24	-28.24	-31.89	41.15	24.63	13.56	19.37	34.79	-16.17	-8.70	25.38	12.98
2021	3.44	0.13	1.57	12.44	-4.42	17.89	6.35	14.63	-16.00	22.98	8.10	-0.34
2022	-30.47	-10.61	14.60	-28.45	-14.64	-26.87	32.41	-14.82	-22.49	7.79	-2.99	-16.13
2023	24.60	0.31	18.09	3.90	19.51	14.70	9.84	-3.16	-13.95	-8.78	30.27	10.45
2024	9.03	10.07	-0.10	-11.83	18.14	17.08	-6.81	-0.45	5.70	-4.15	0.00	0.00

Strategy - Return Quantiles



Disclaimer: This report is for informational purposes only and should not be considered as investment advice. Past performance is not indicative of future results.

Metric	SPY	Strategy
Serenity Index	1.41	0.68
Avg. Up Month	3.6%	11.67%
Avg. Down Month	-4.39%	-13.27%
Win Days	2161.15	2213.59
Loss Days	1763.85	1711.41
Win Days%	55.06%	56.4%
Win Month%	71.32%	60.77%
Win Quarter%	81.4%	68.18%
Win Year%	81.82%	81.82%
Beta	-	1.33
Alpha	-	0.2
Correlation	-	44.59%
Treynor Ratio	-	1058.17%

EOY Returns vs Benchmark

Year	SPY	Strategy	Multiplier	Won
2014	14.57%	39.23%	2.69	+
2015	1.28%	9.26%	7.23	+
2016	12.02%	11.50%	0.96	-
2017	22.58%	79.34%	3.51	+
2018	-5.21%	-16.98%	3.26	-
2019	31.23%	100.89%	3.23	+
2020	18.43%	94.58%	5.13	+
2021	28.77%	80.85%	2.81	+
2022	-18.16%	-75.61%	4.16	-
2023	25.50%	152.54%	5.98	+
2024	22.55%	37.42%	1.66	+

Worst 10 Drawdowns

Started	Recovered	Drawdown	Days
2021-11-23	2024-10-01	-77.66%	1044
2020-02-21	2020-07-18	-63.47%	149
2018-10-03	2019-11-02	-49.47%	396
2020-09-02	2020-12-16	-34.59%	106

Started	Recovered	Drawdown	Days
2015-07-21	2016-08-20	-34.45%	397
2018-03-13	2018-06-12	-26.51%	92
2021-02-17	2021-04-12	-23.78%	55
2018-01-30	2018-03-10	-21.76%	40
2014-09-21	2014-10-29	-20.03%	39
2021-04-29	2021-06-12	-19.86%	45