

Earnings Research

Straddle (Jump)

All figures depict the straddle return jump apart from the specific ones relating to PEAD.

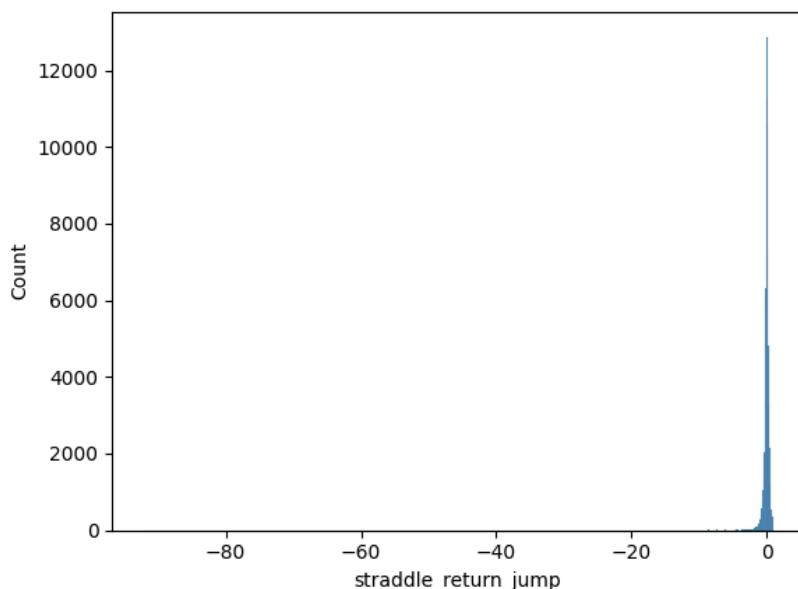
Return Distribution

count	72426.000000
mean	0.000032
std	0.632031
min	-92.165025
25%	-0.103015
50%	0.038753
75%	0.193379
max	0.918400

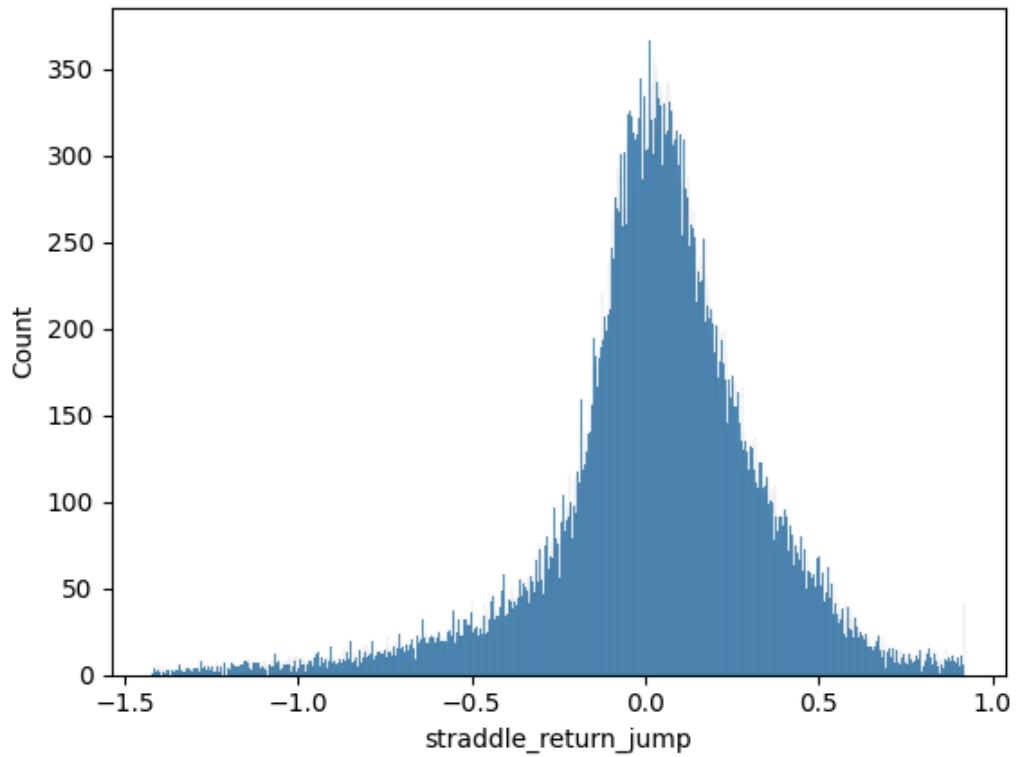
Return Statistics for Straddle Jump

```
5.00% of time - 68804/72426 values - actual quantile value: -0.5915
1.00% of time - 71701/72426 values - actual quantile value: -1.4212
0.10% of time - 72353/72426 values - actual quantile value: -4.2204
0.01% of time - 72418/72426 values - actual quantile value: -16.7656
```

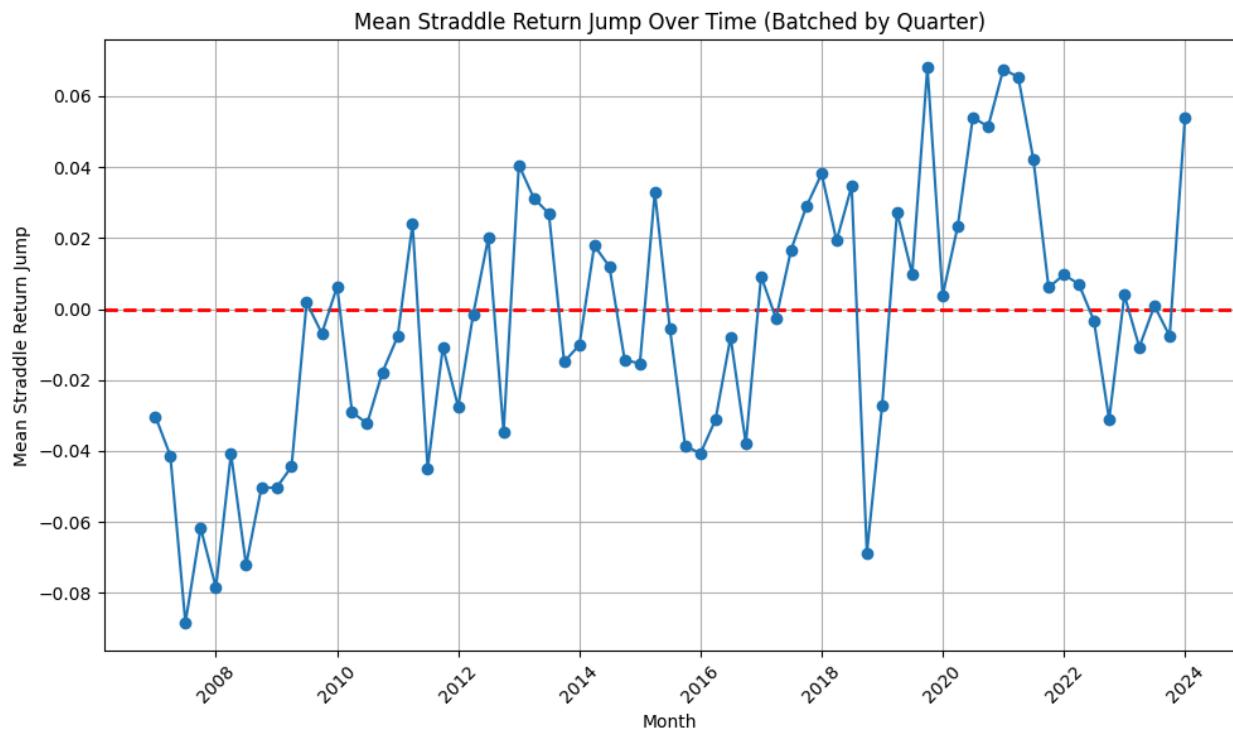
Worst 5%, 1%, 0.1% and 0.01% Outcomes for Straddle Jump



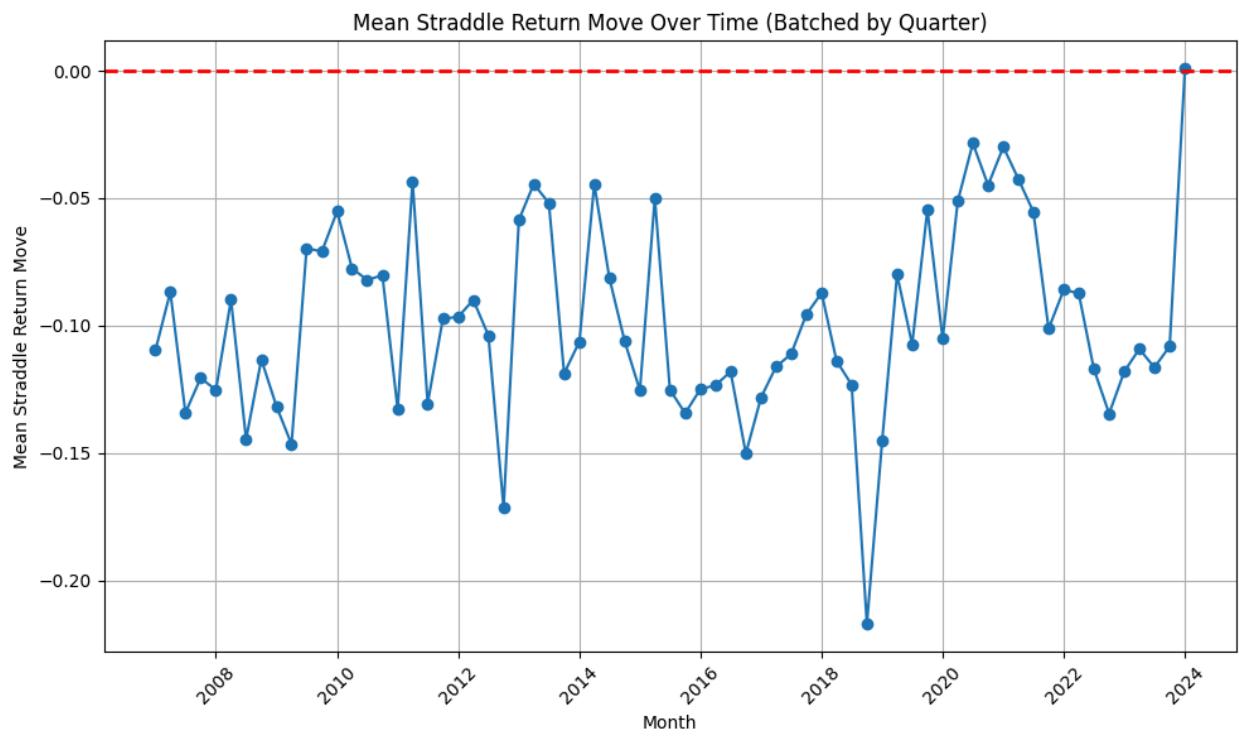
Unzoomed Straddle Jump Return Histogram



Zoomed Straddle Jump Return Histogram (Worst 1% Removed)

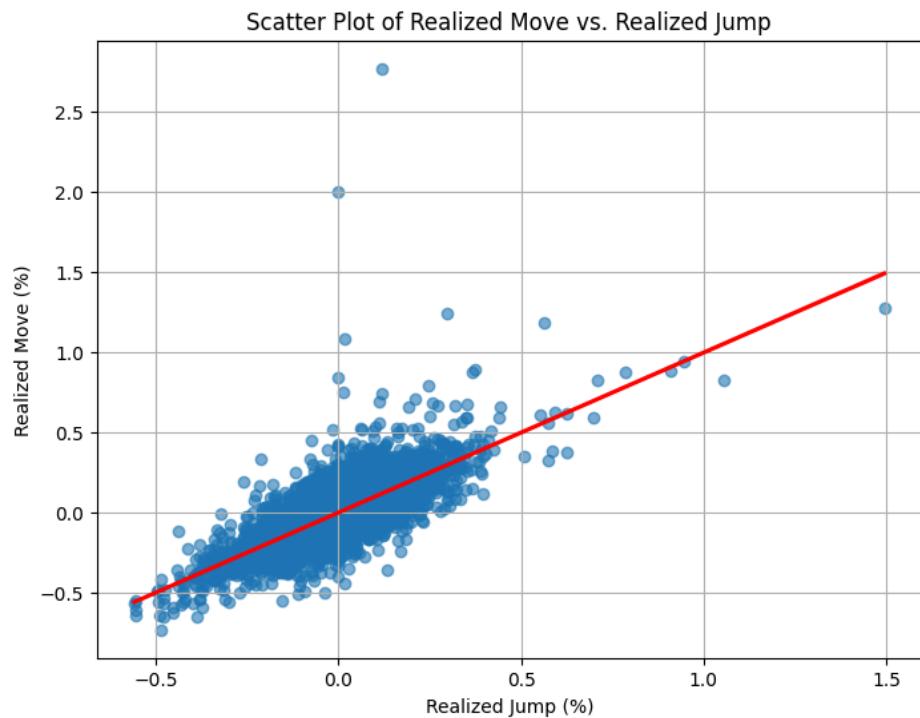


Straddle Return Jump Over Time Batched by Quarter



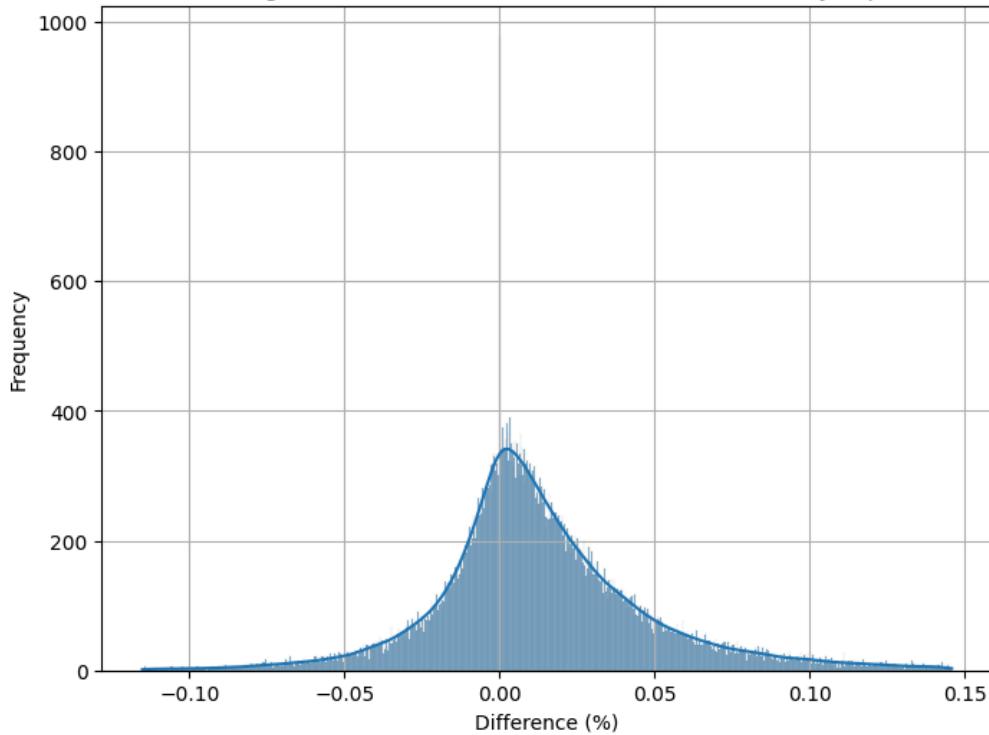
Straddle Return Move Over Time Batched by Quarter

PEAD



Scatter Plot of Realized Jump vs Realized Move

Histogram of Differences (Realized Move - Realized Jump)

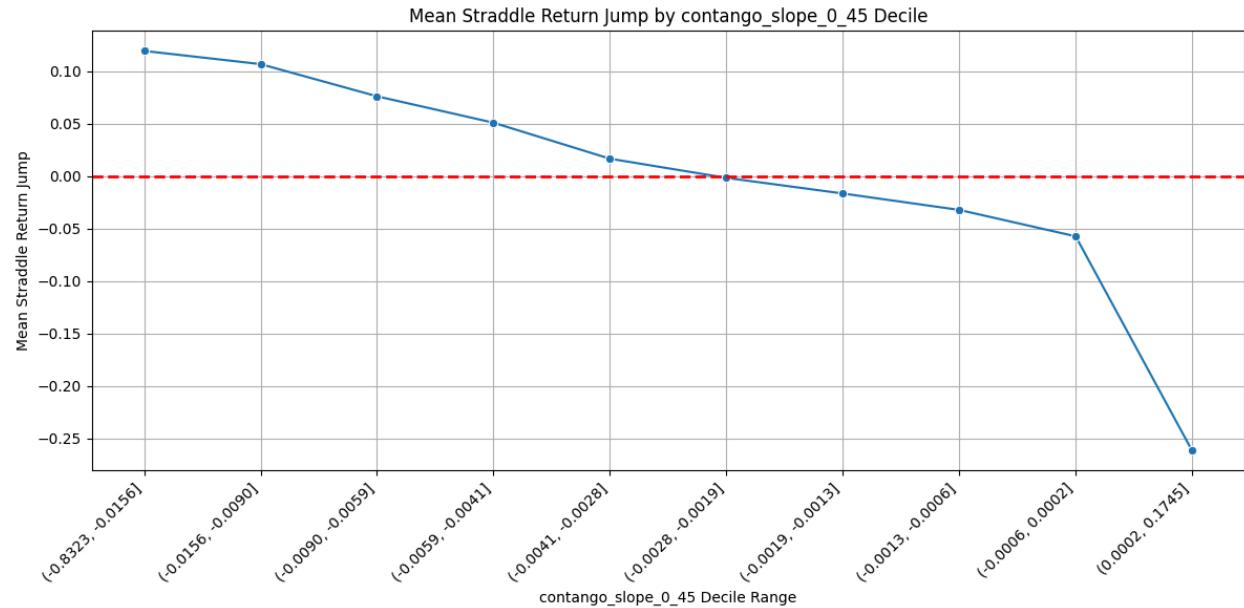


Histogram of ABS(Move) - ABS(Jump) (How much more did stock move from jump to move on average)

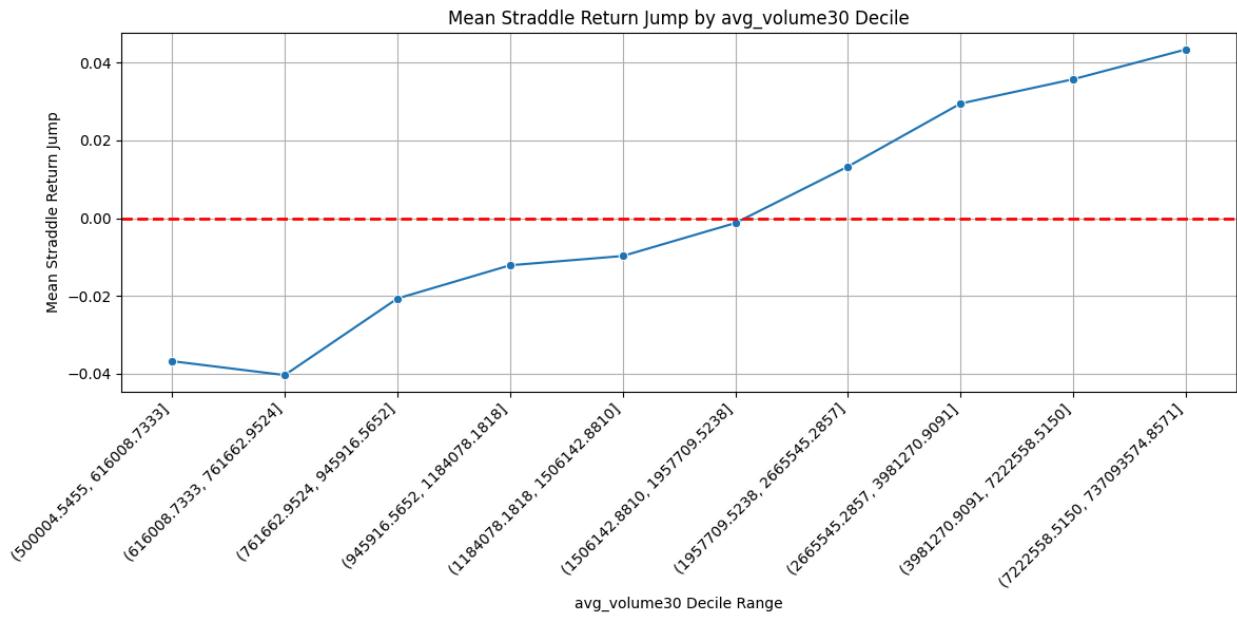
count	72426.000000
mean	0.015247
std	0.043562
min	-0.319899
25%	-0.004834
50%	0.009313
75%	0.030309
max	2.650655

Statistics Describing Histogram Above

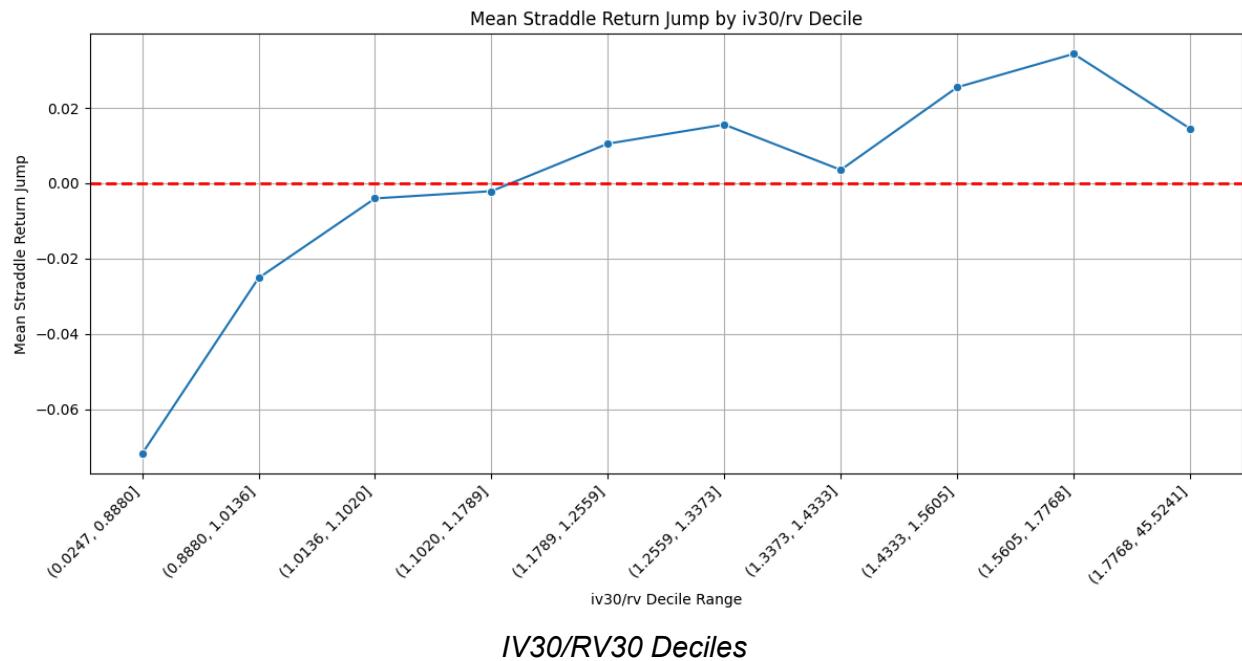
Predictor Variable Deciles



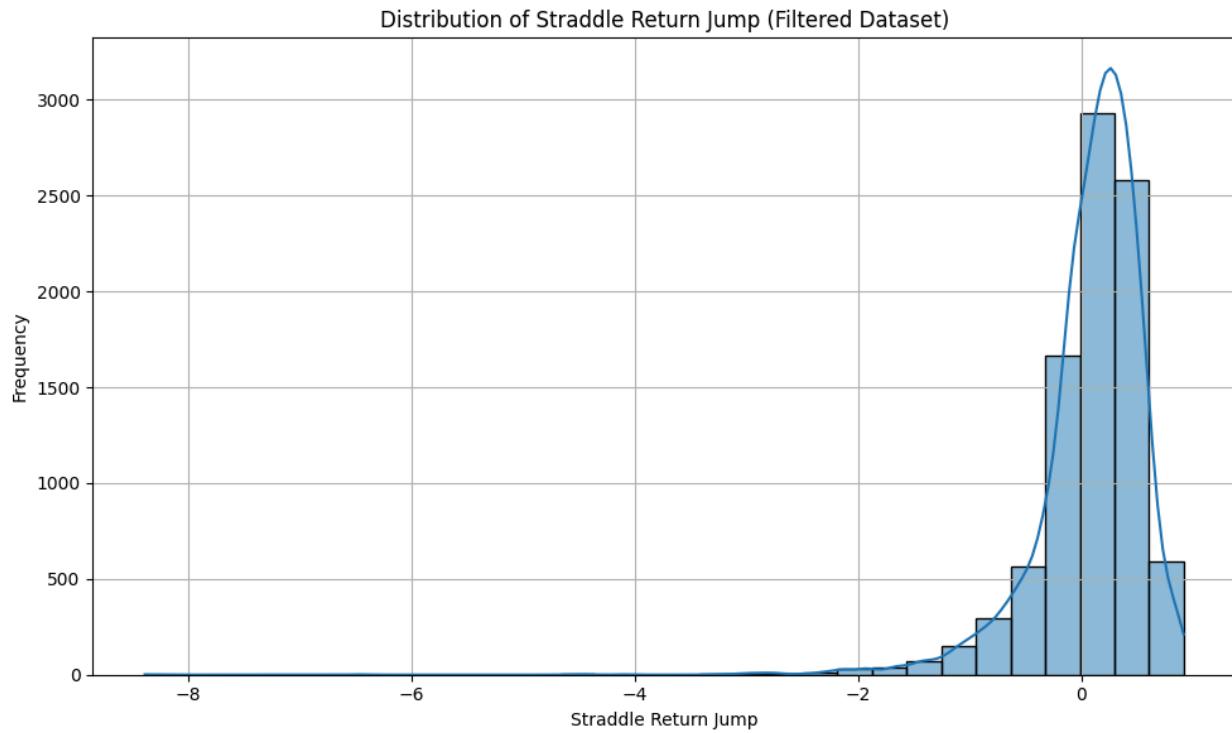
Term Structure Slope (nearest exp to 45 day interpolated value) Deciles



Average Volume 30day Prior to Earnings Deciles



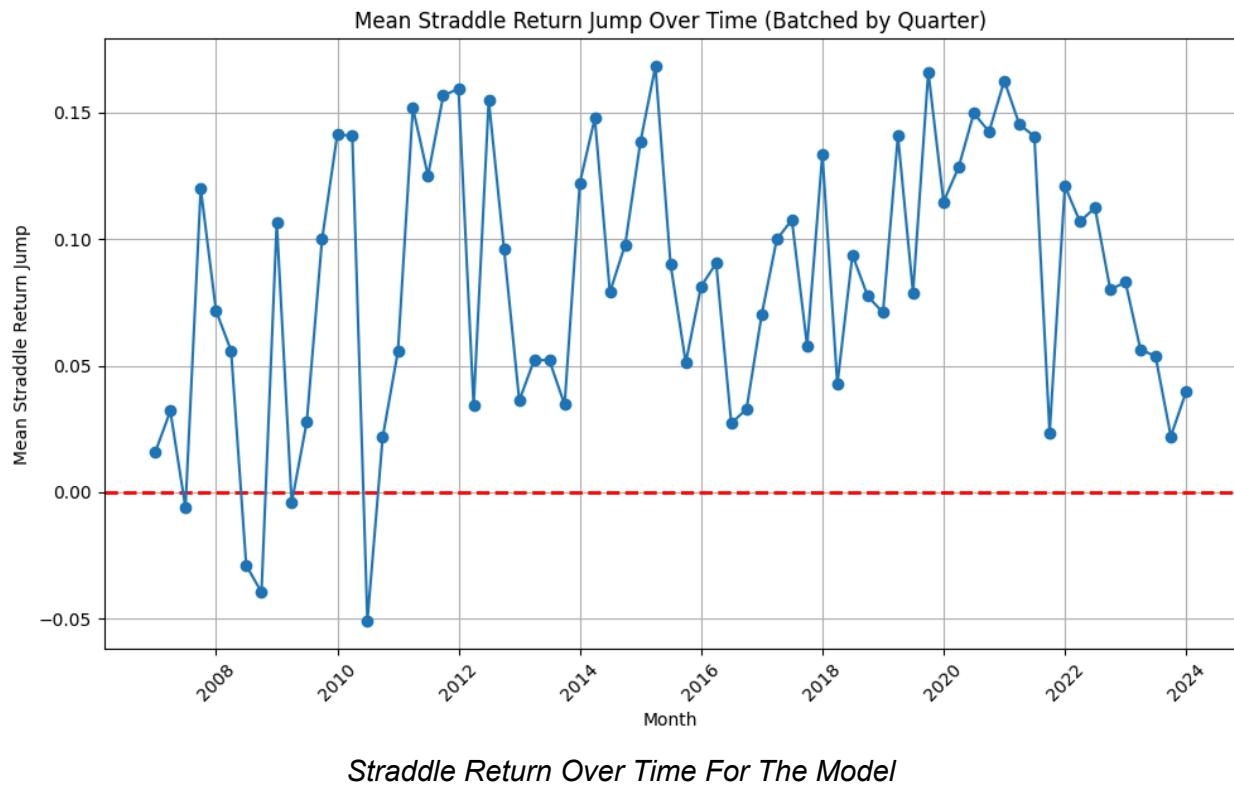
The Model



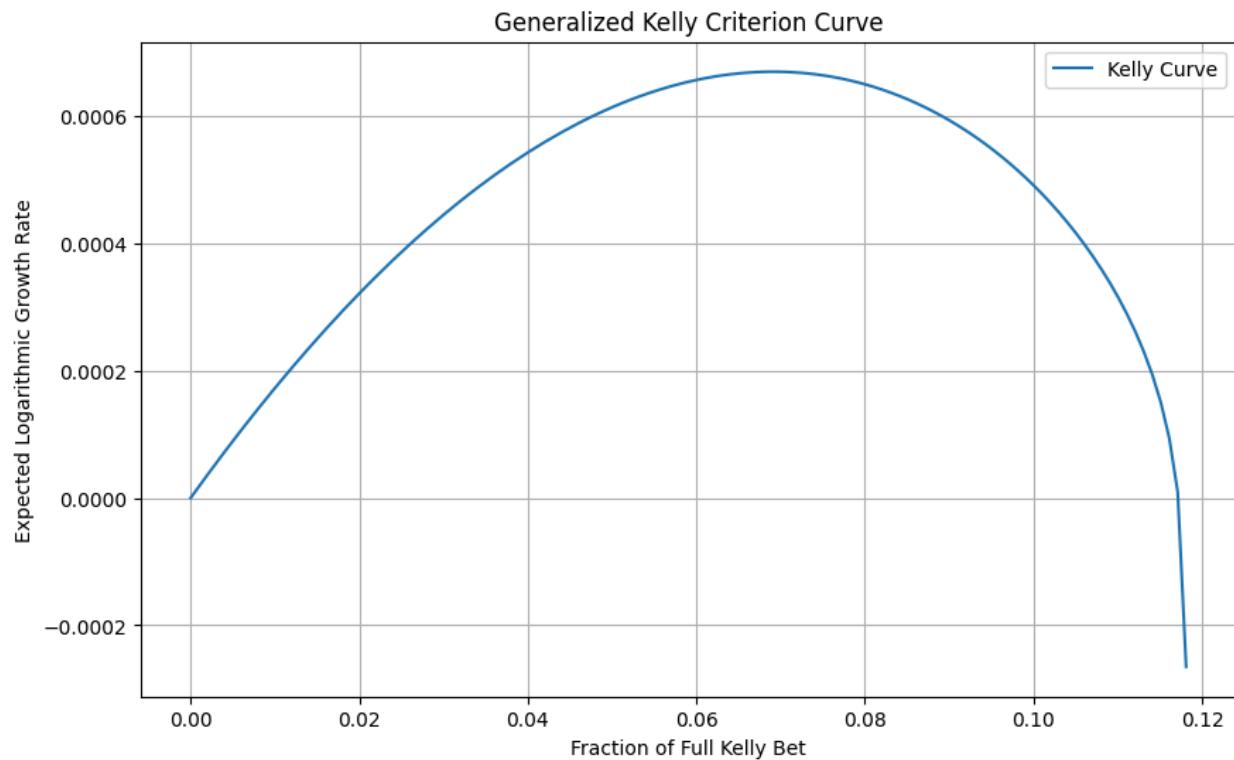
Straddle Jump Histogram For The Model

```
Size of dataset remaining: 12.35%
count      8945.000000
mean       0.090433
std        0.484275
min       -8.386427
25%       -0.085909
50%        0.174166
75%        0.391289
max       0.918400
```

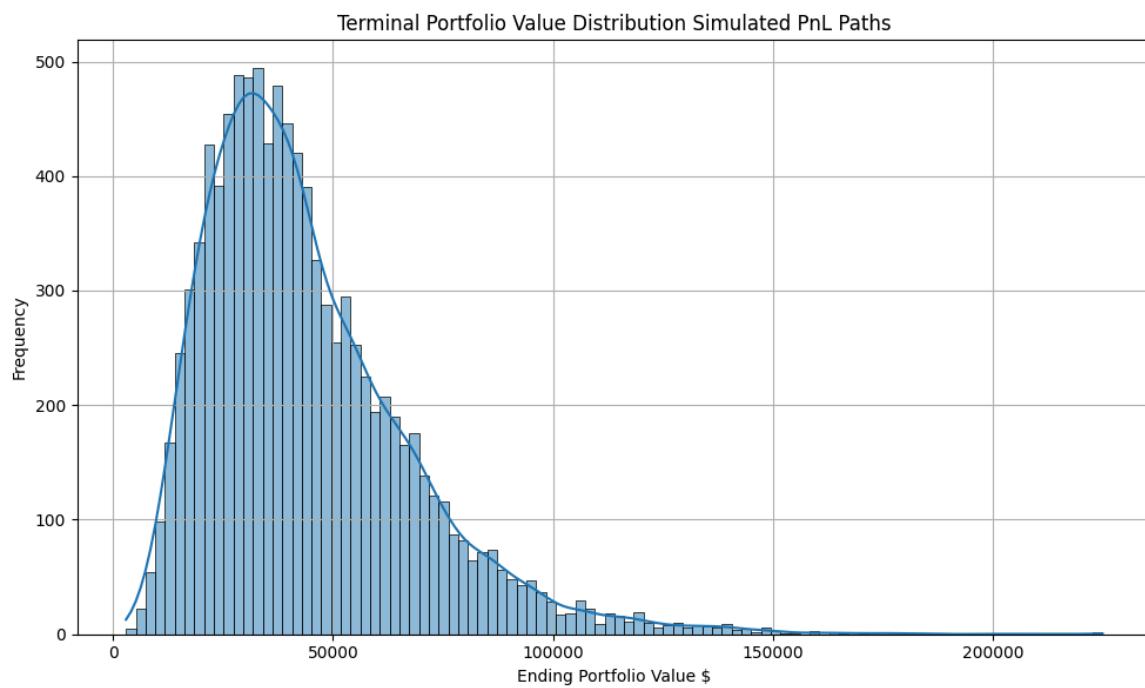
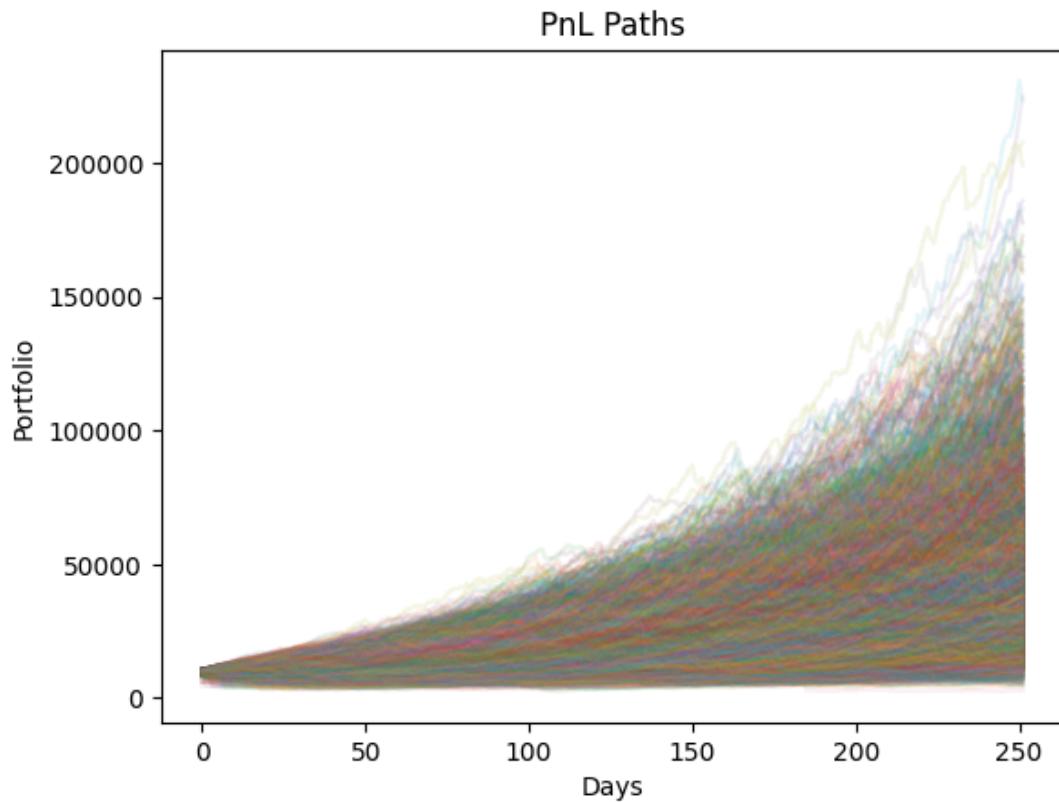
Straddle Jump Distribution Statistics For The Model



Kelly Criterion

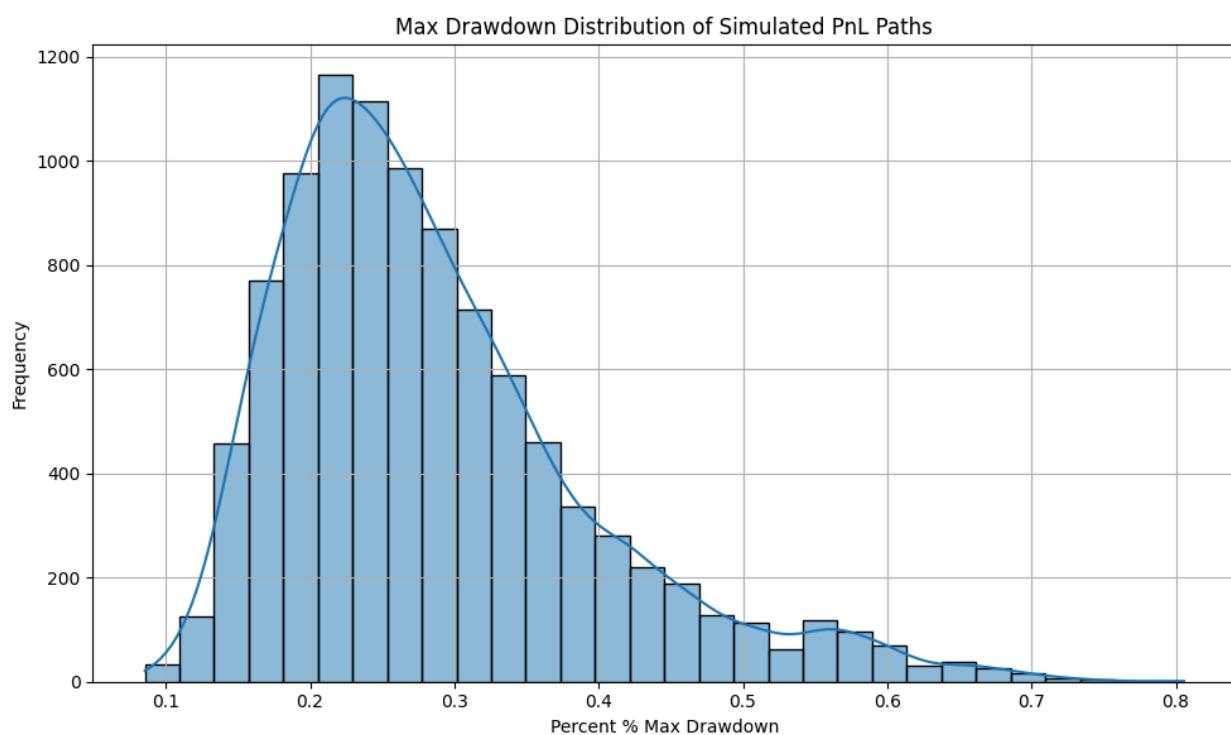


Full kelly (1 year)

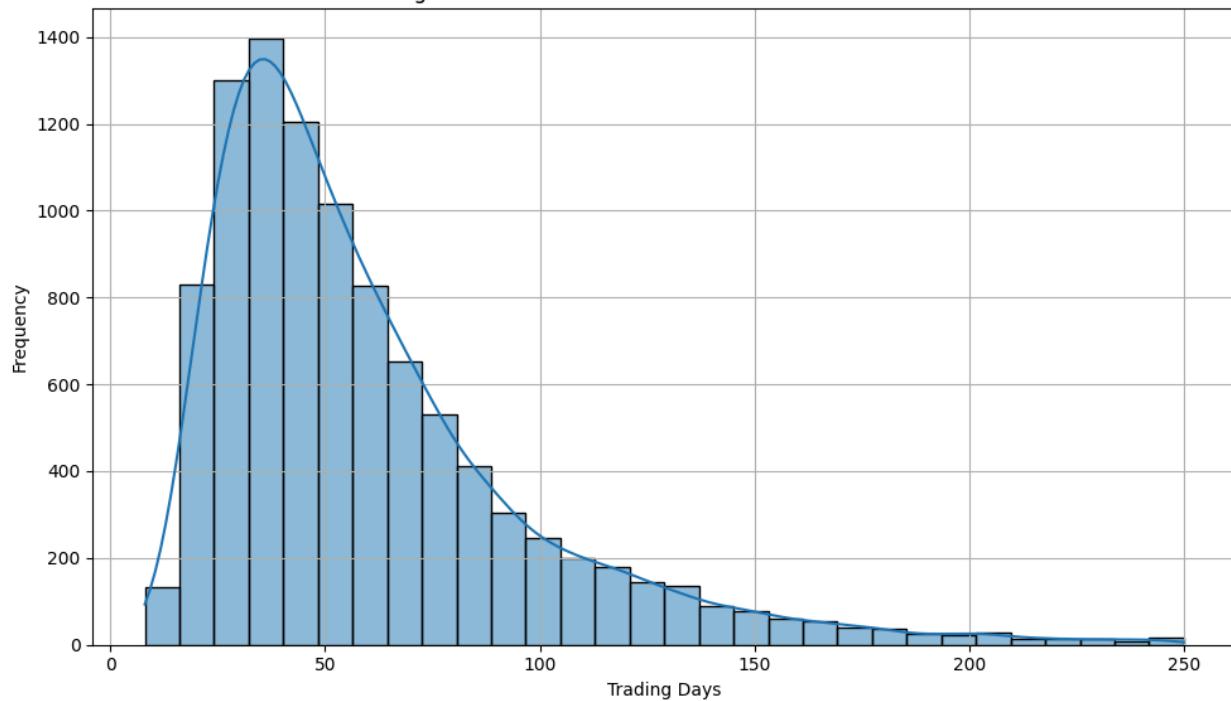


count	10,000.00
mean	43,997.60
std	23,624.50
min	2,962.09
25%	27,331.13
50%	39,081.82
75%	55,733.89
max	224,811.24

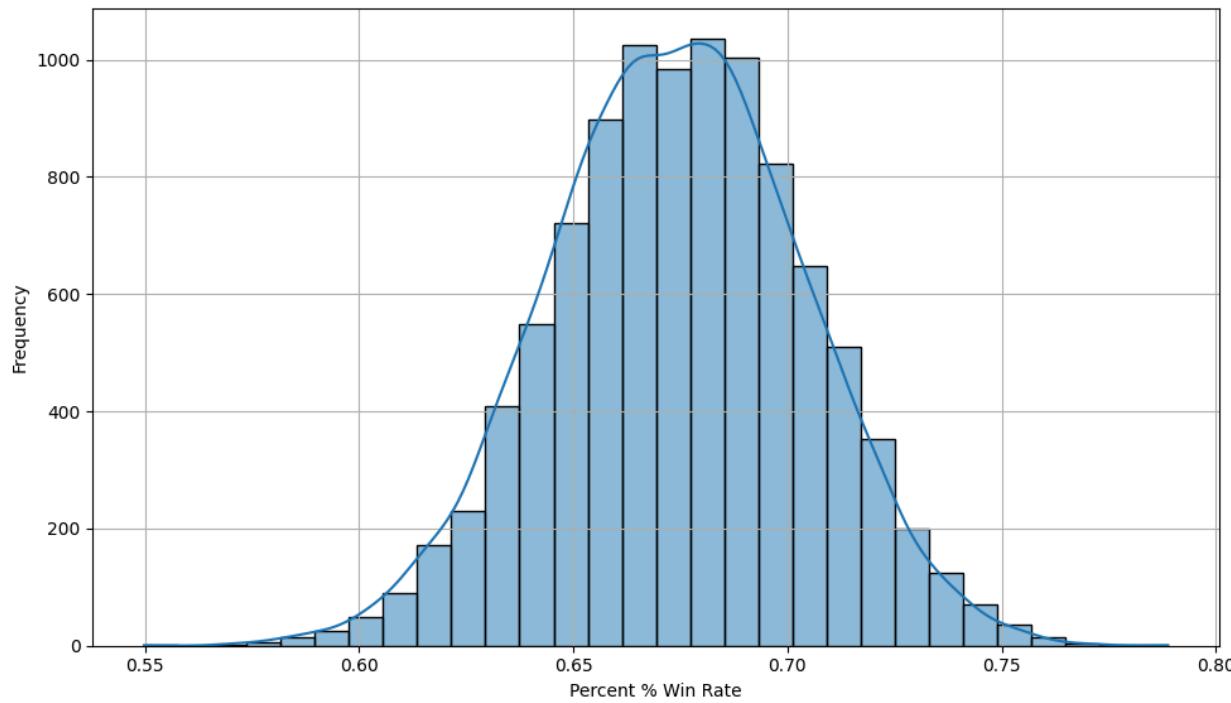
Terminal PnL Distribution Stats



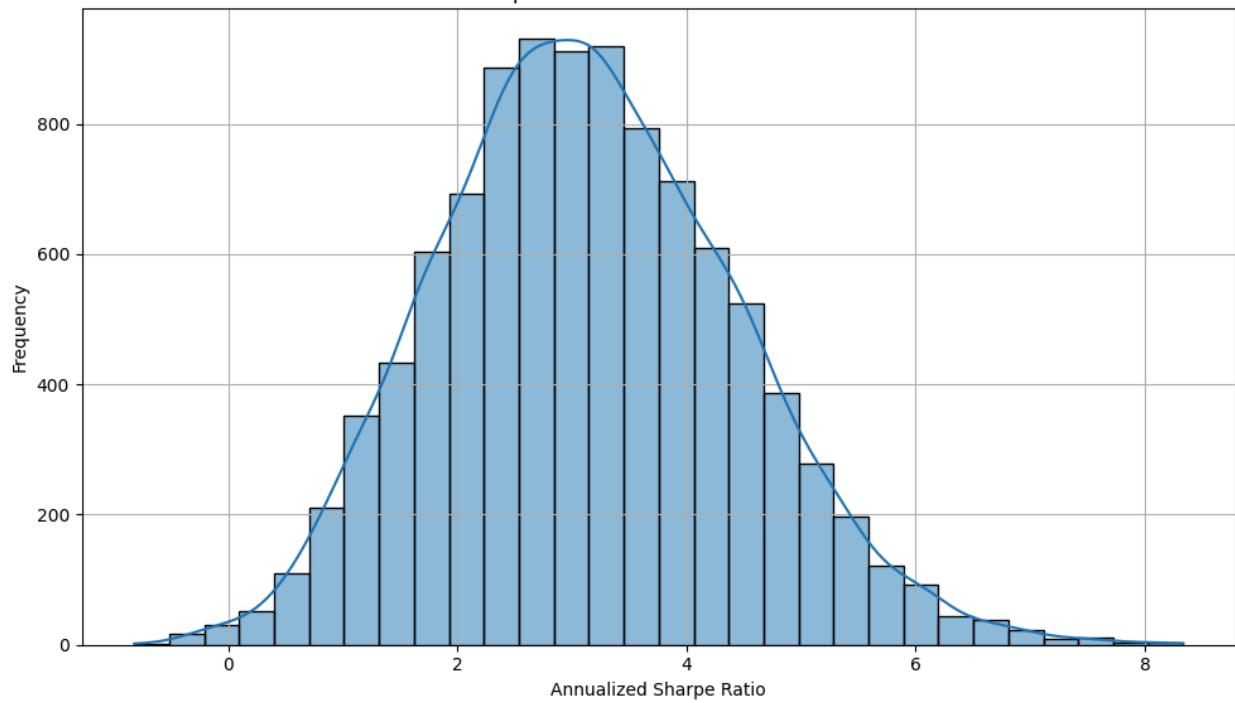
Longest Drawdown Distribution of Simulated PnL Paths



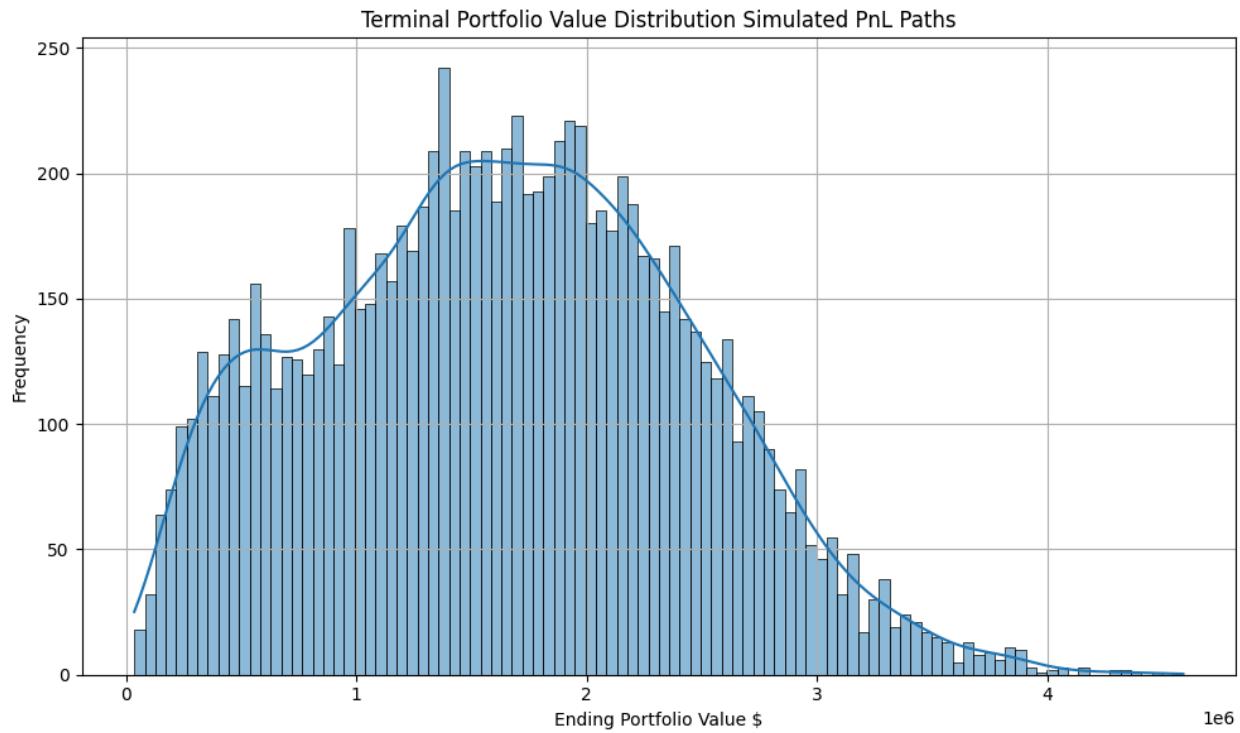
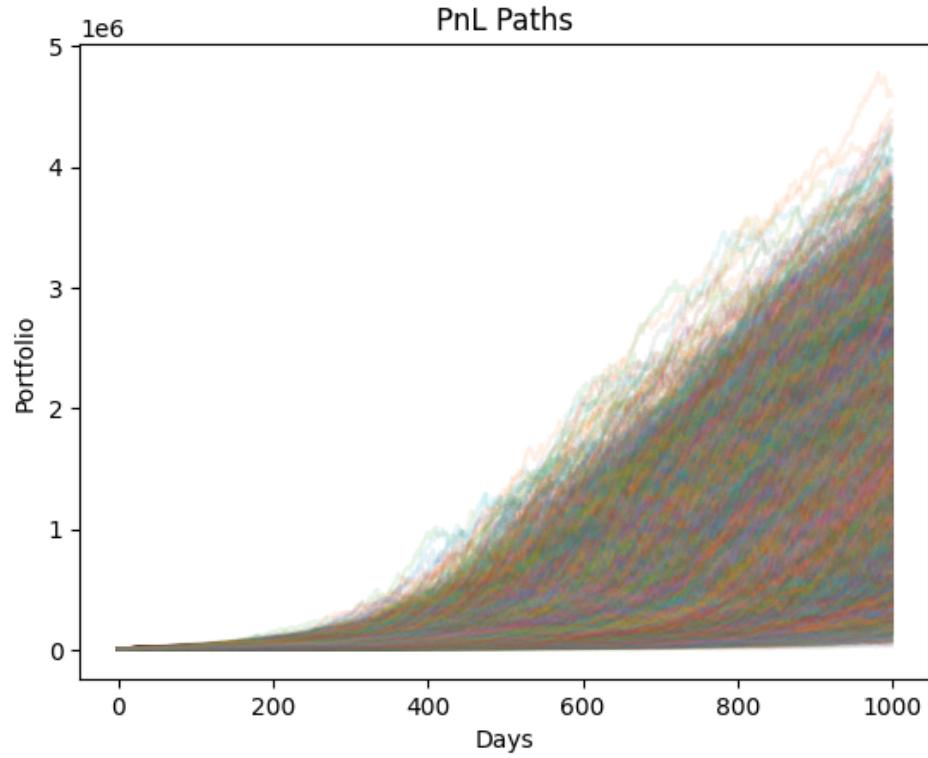
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

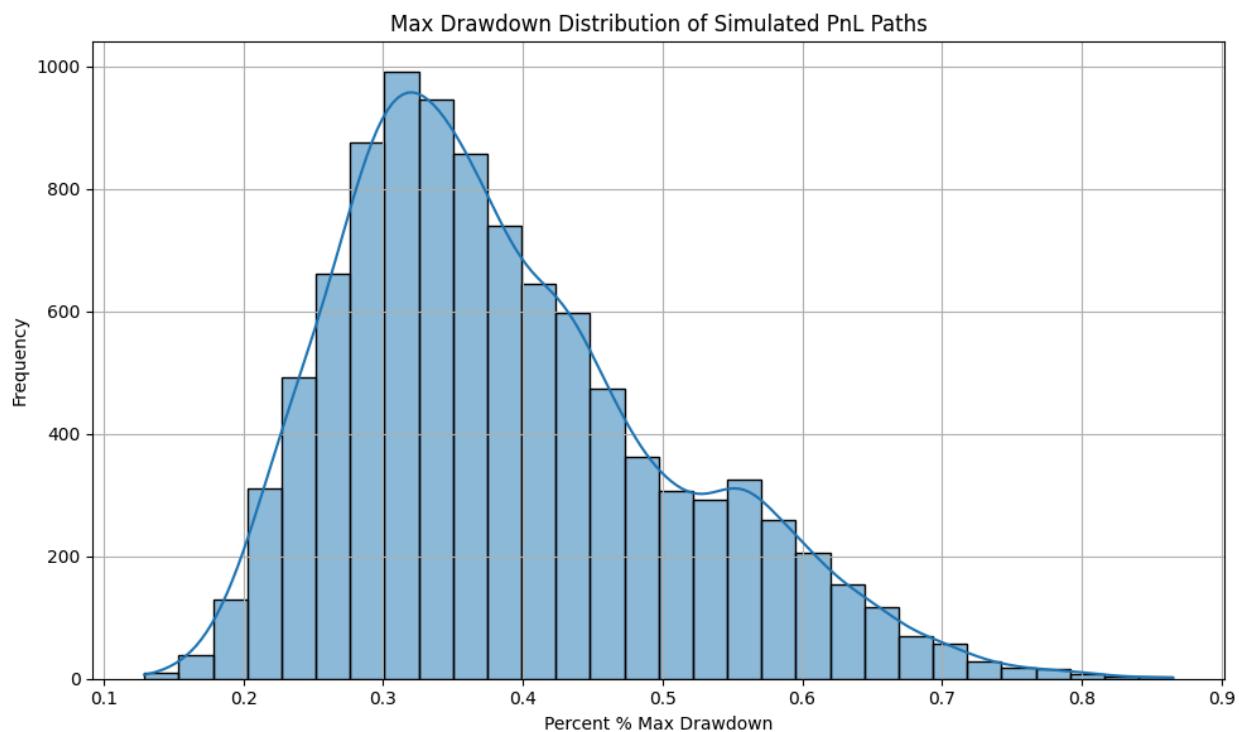


Full kelly (4 years)

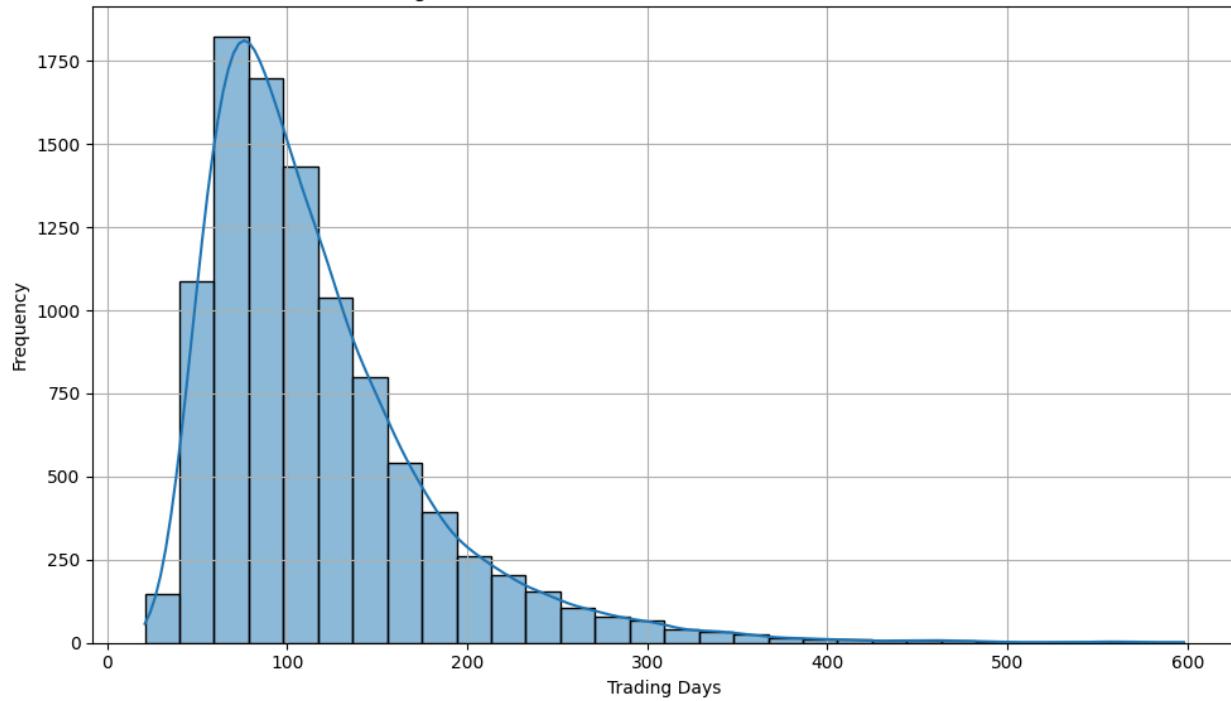


count	10,000.00
mean	1,638,276.63
std	802,975.62
min	35,370.55
25%	1,033,445.63
50%	1,635,279.17
75%	2,205,342.24
max	4,589,872.58

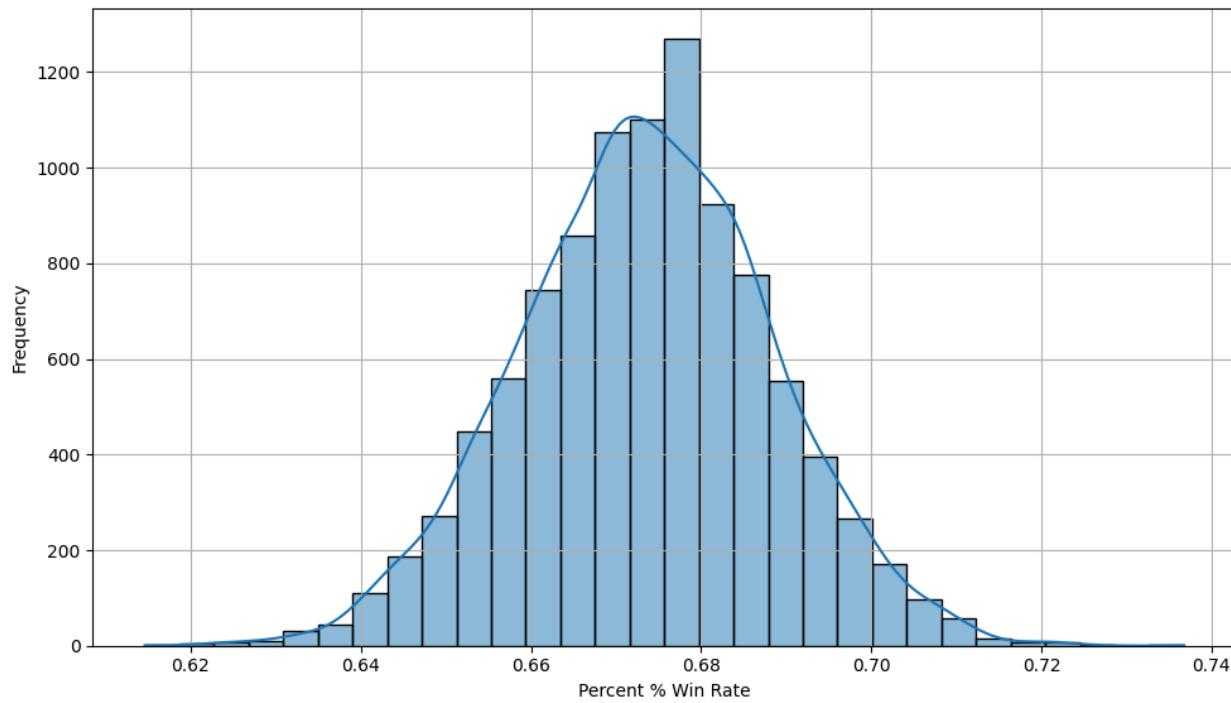
Terminal PnL Distribution Stats



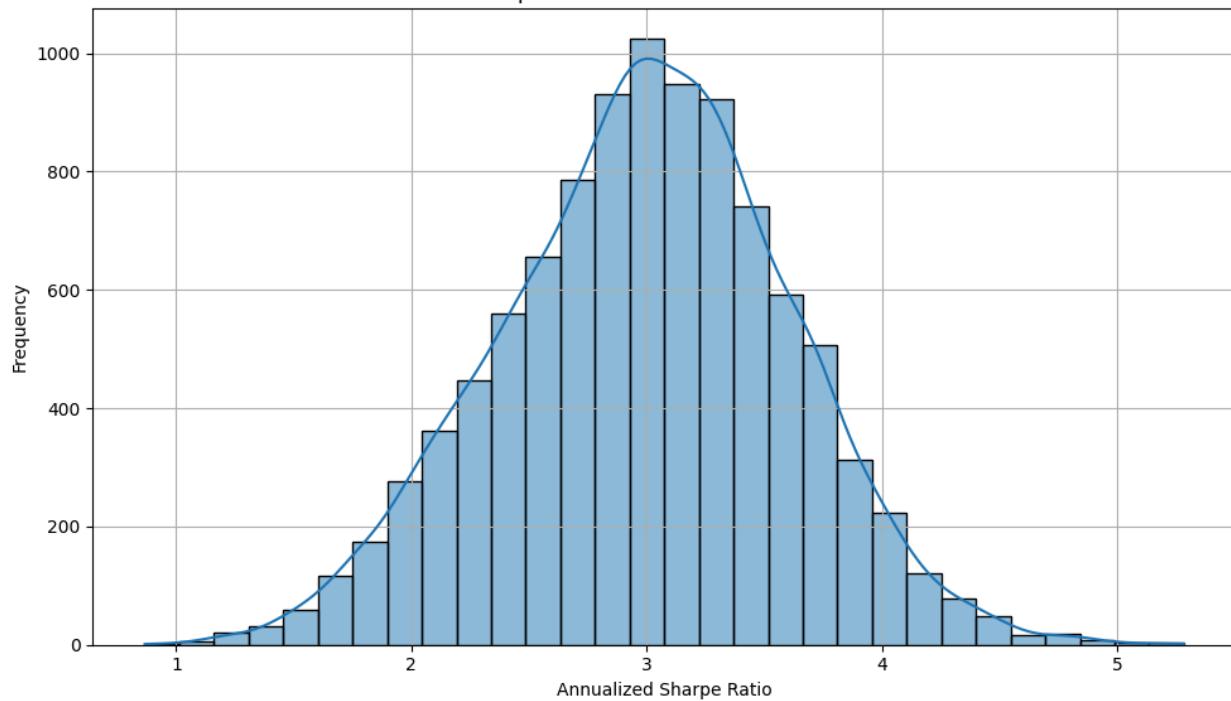
Longest Drawdown Distribution of Simulated PnL Paths



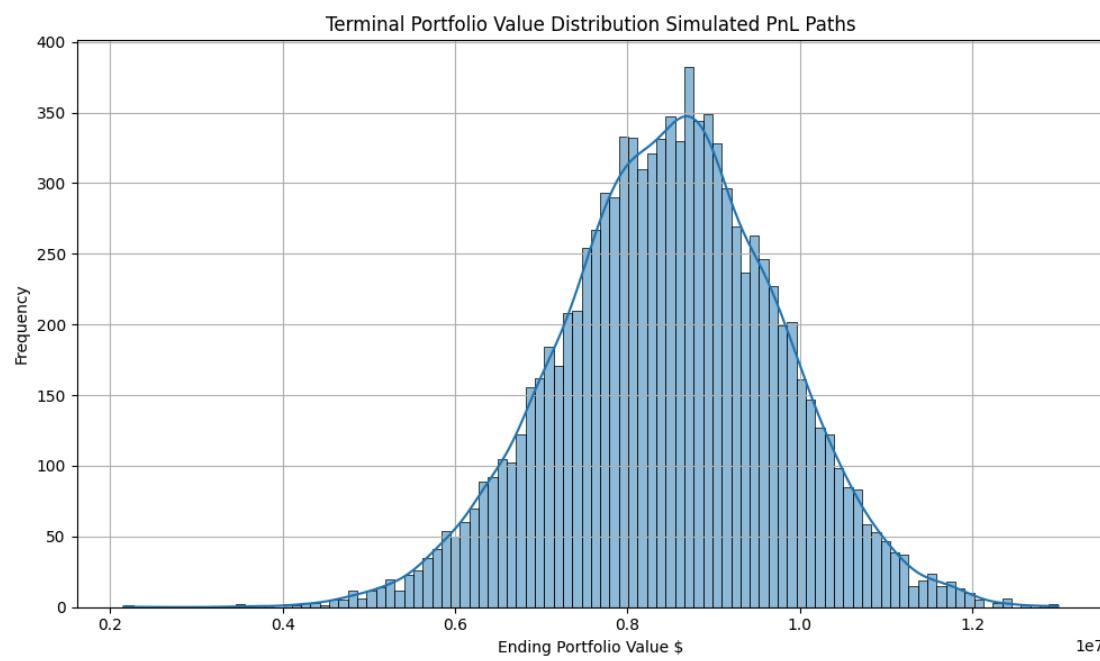
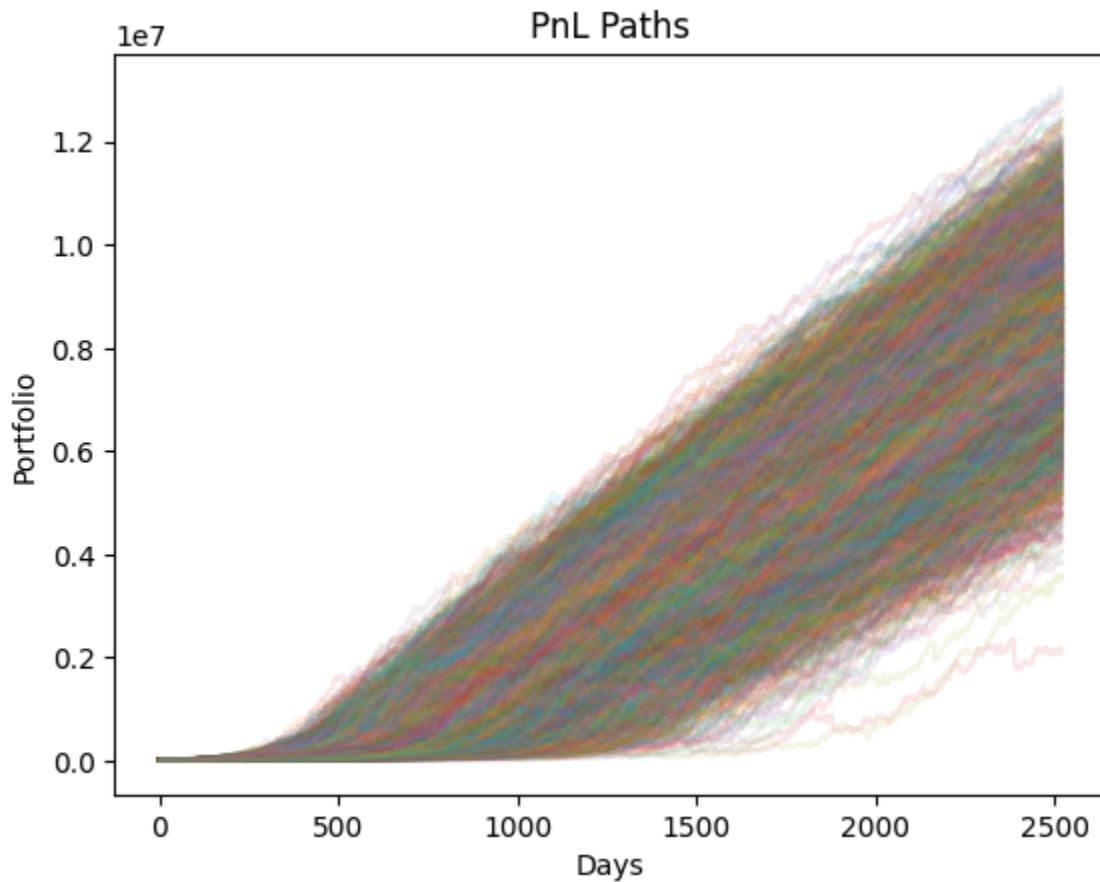
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

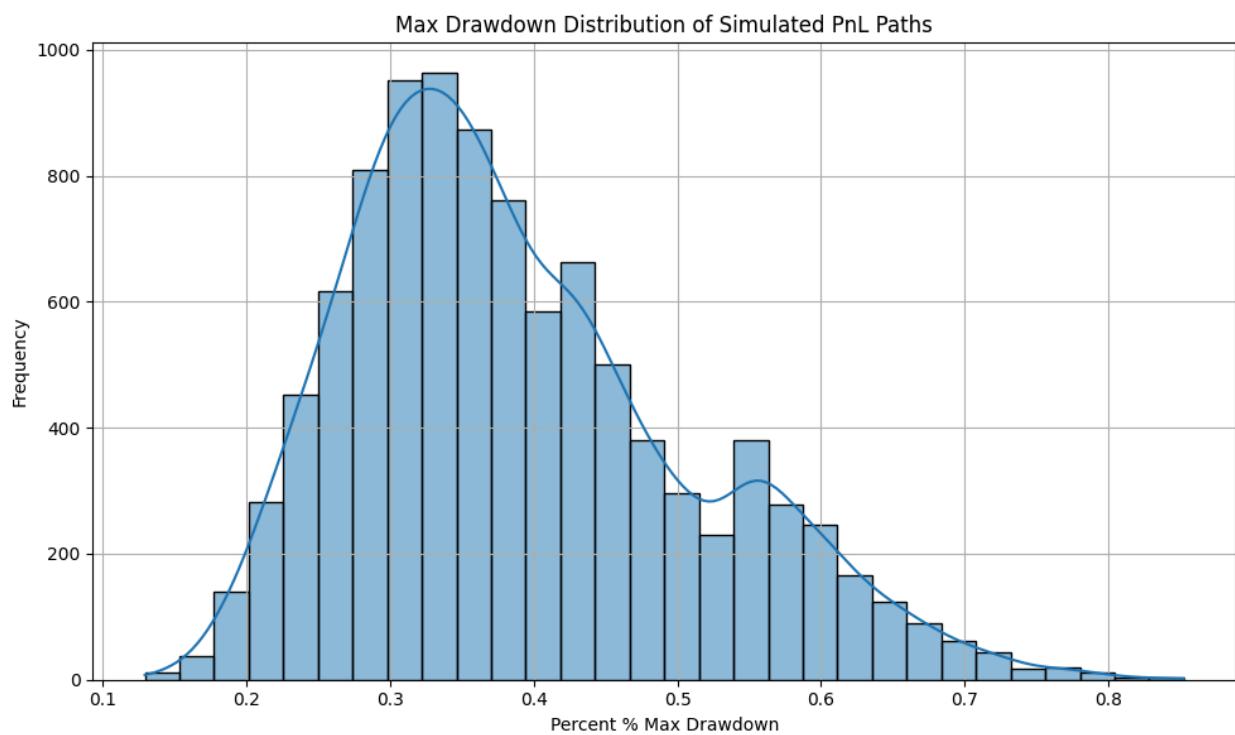


Full Kelly (10 years)

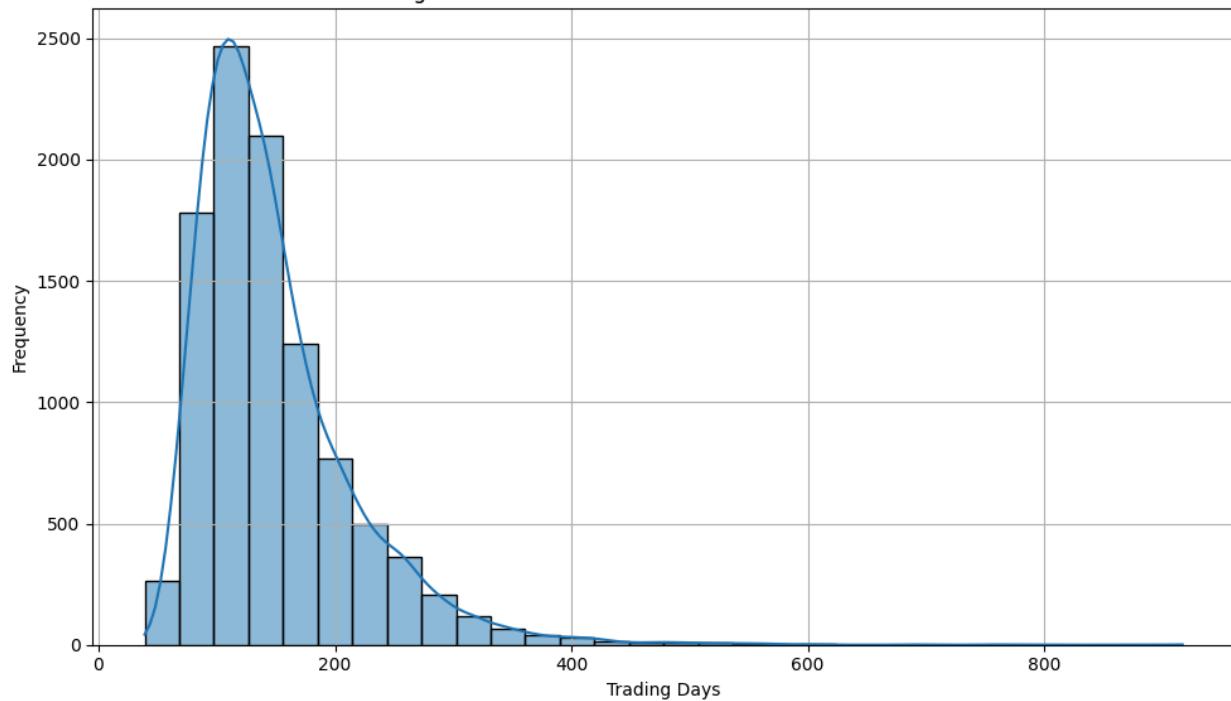


count	10,000.00
mean	8,480,536.42
std	1,278,071.41
min	2,154,352.18
25%	7,658,009.96
50%	8,512,959.77
75%	9,339,603.02
max	12,997,406.03

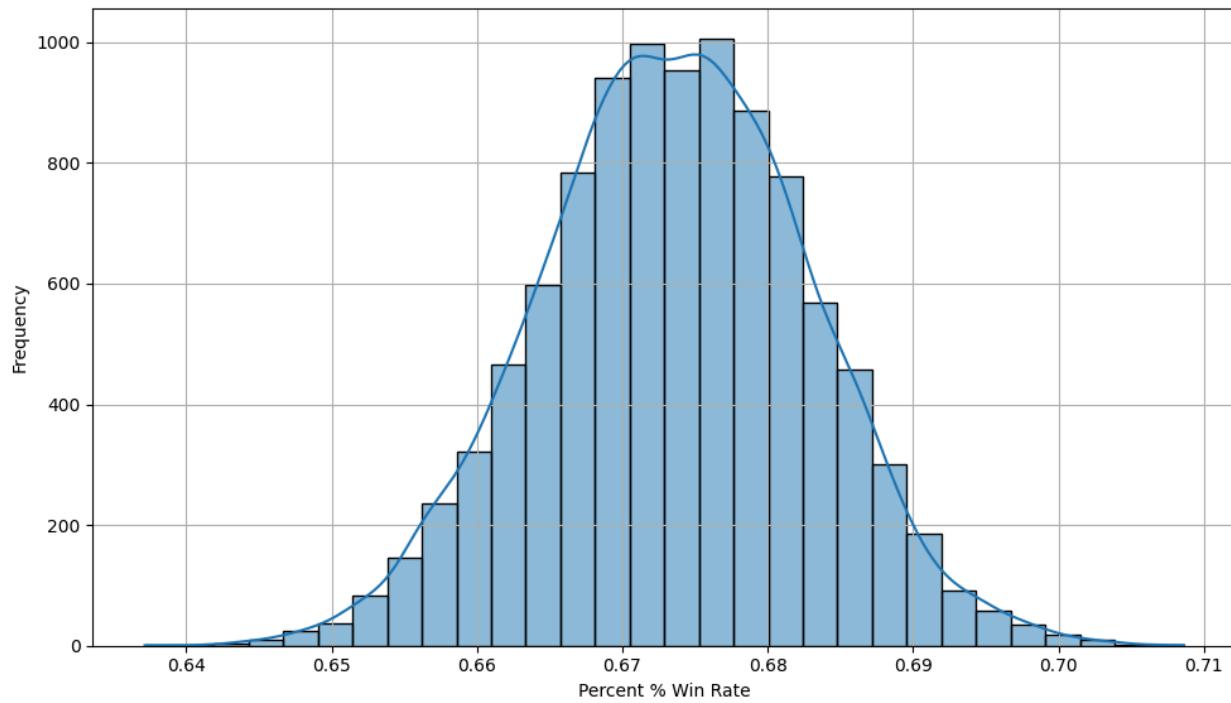
Terminal PnL Distribution Stats



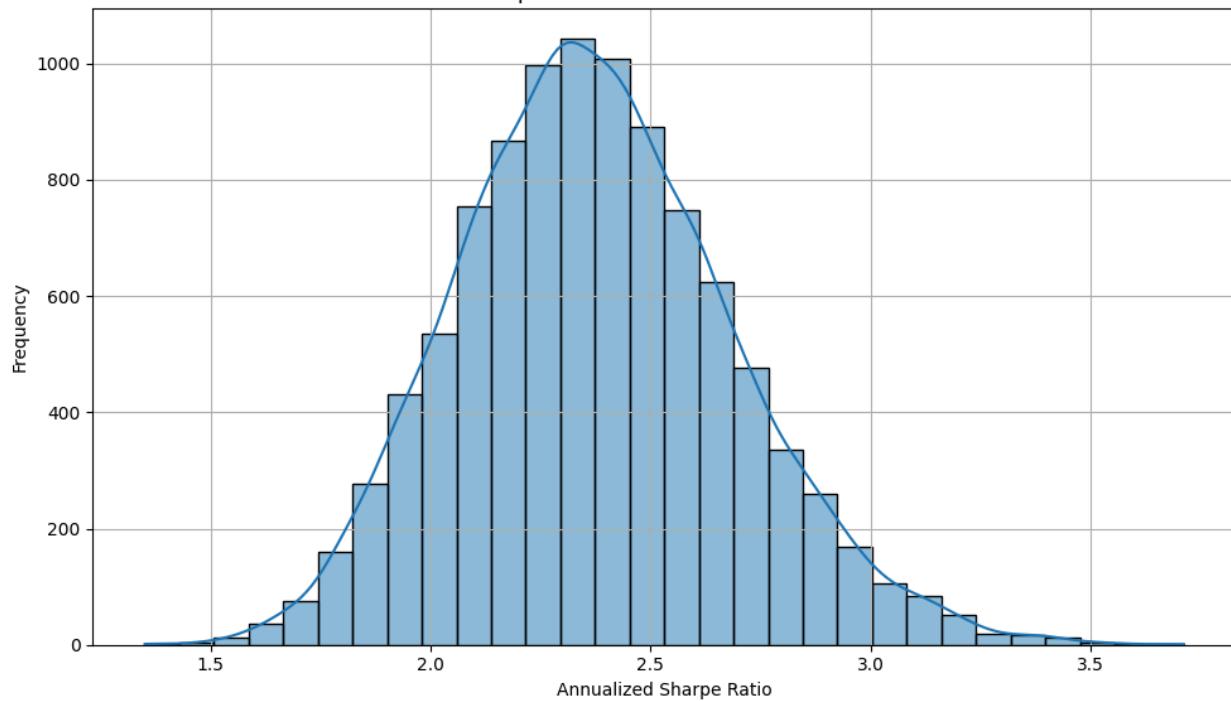
Longest Drawdown Distribution of Simulated PnL Paths



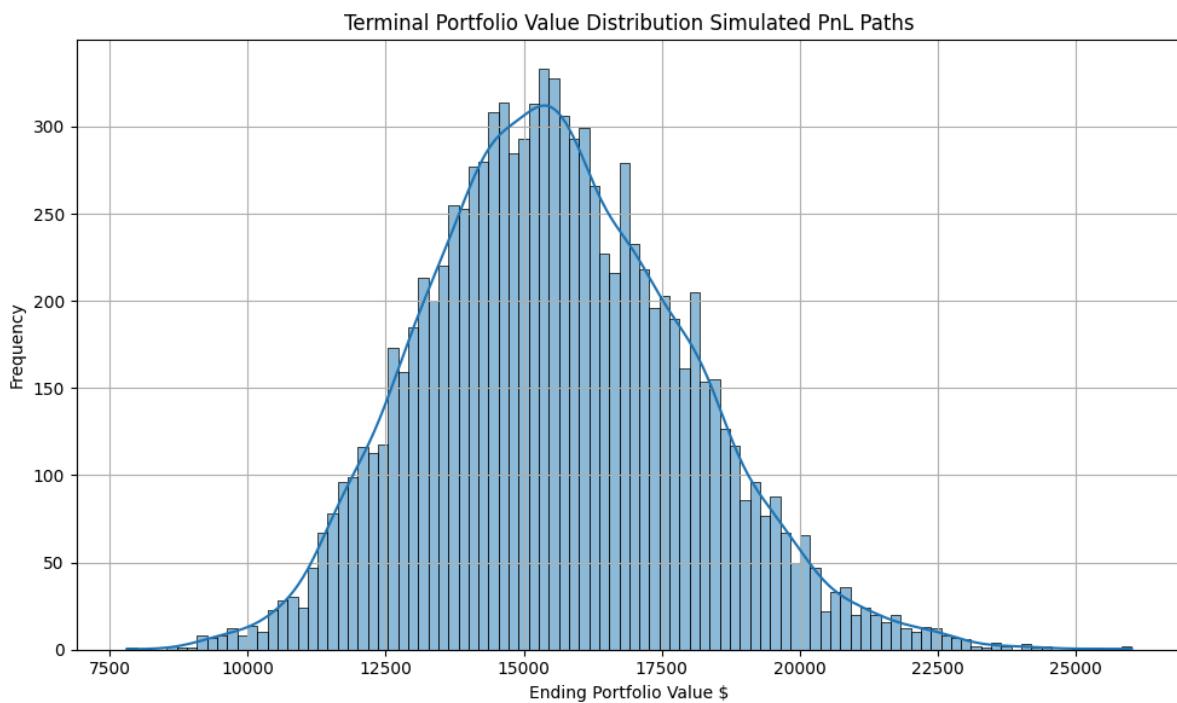
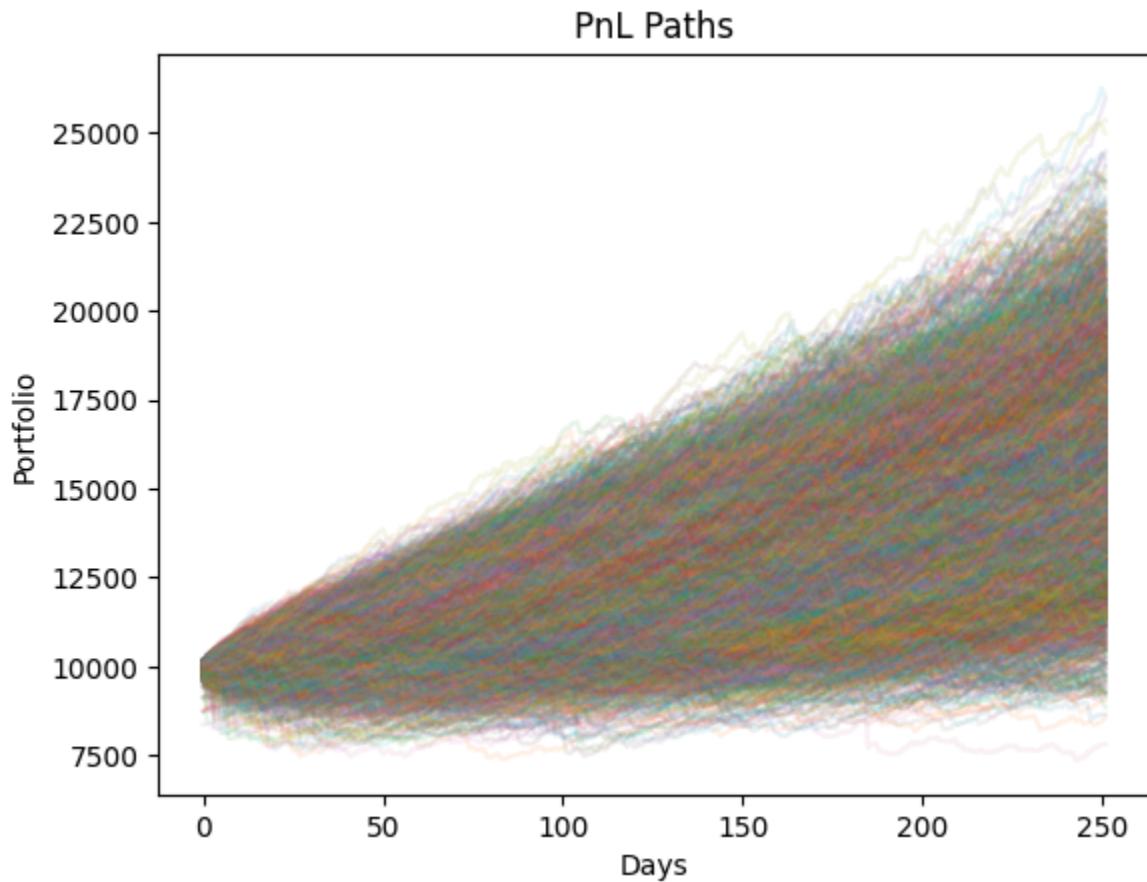
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

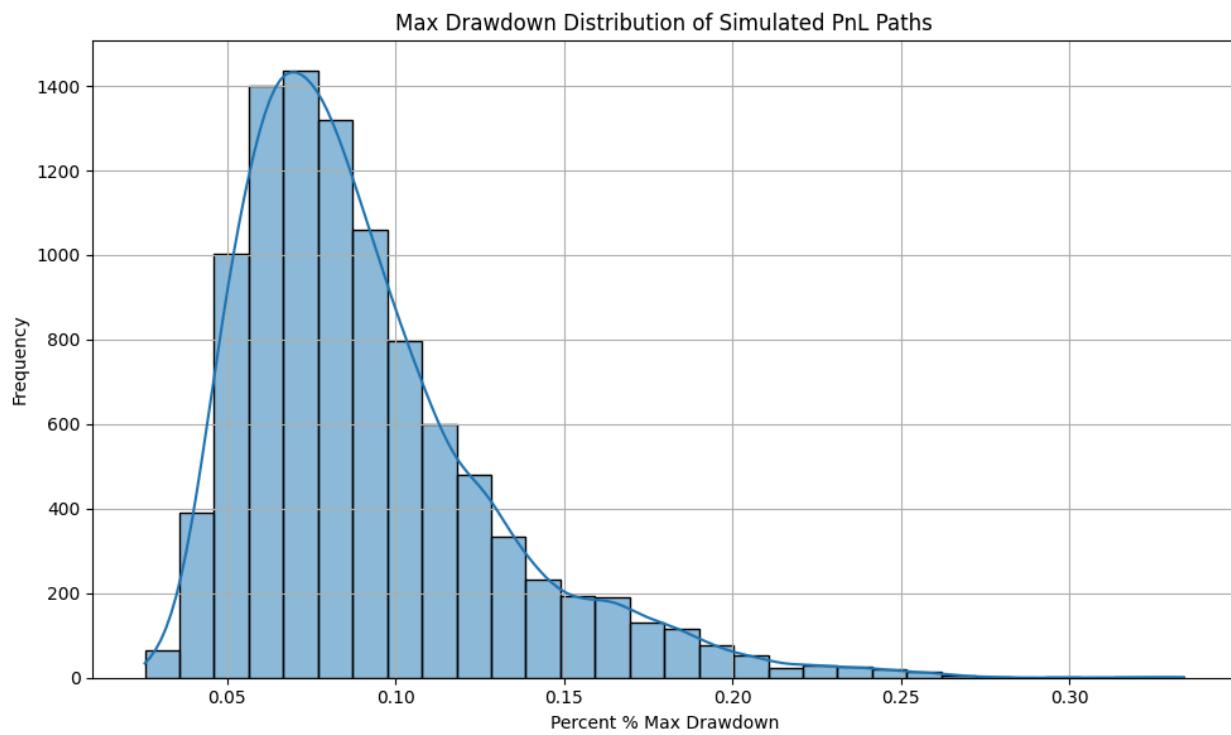


30% Kelly (1 years)

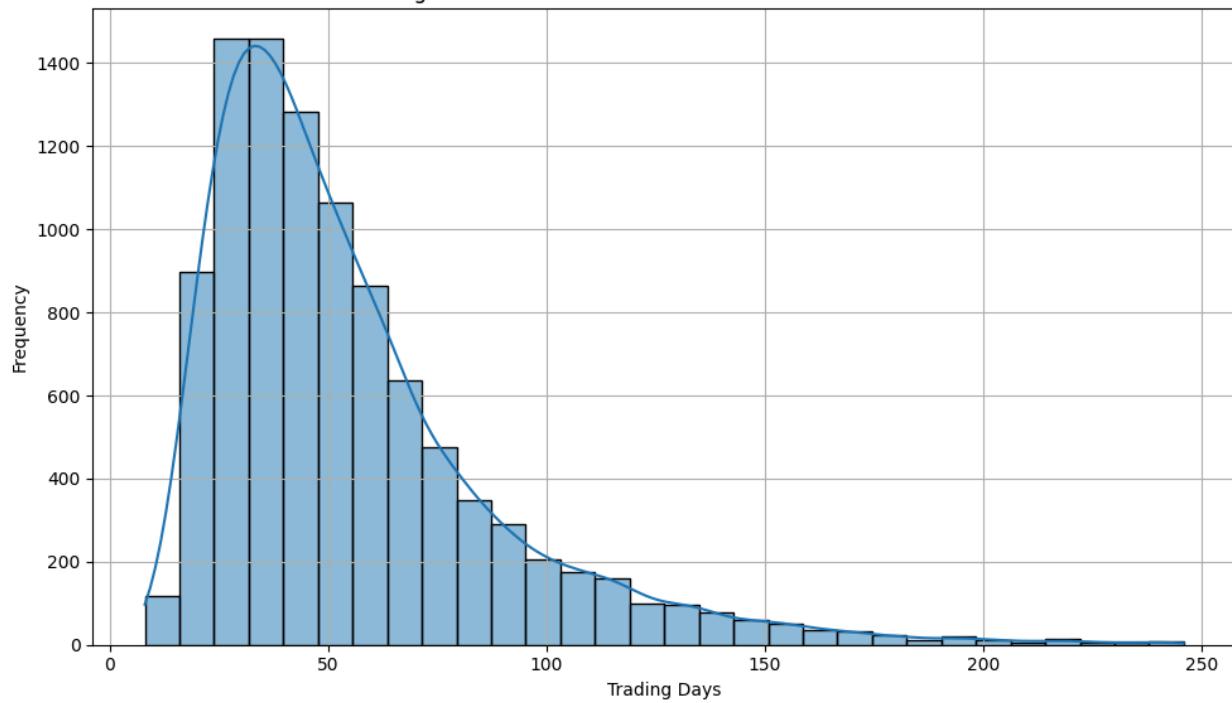


count	10,000.00
mean	15,599.93
std	2,378.89
min	7,807.72
25%	13,951.43
50%	15,471.27
75%	17,161.27
max	26,012.55

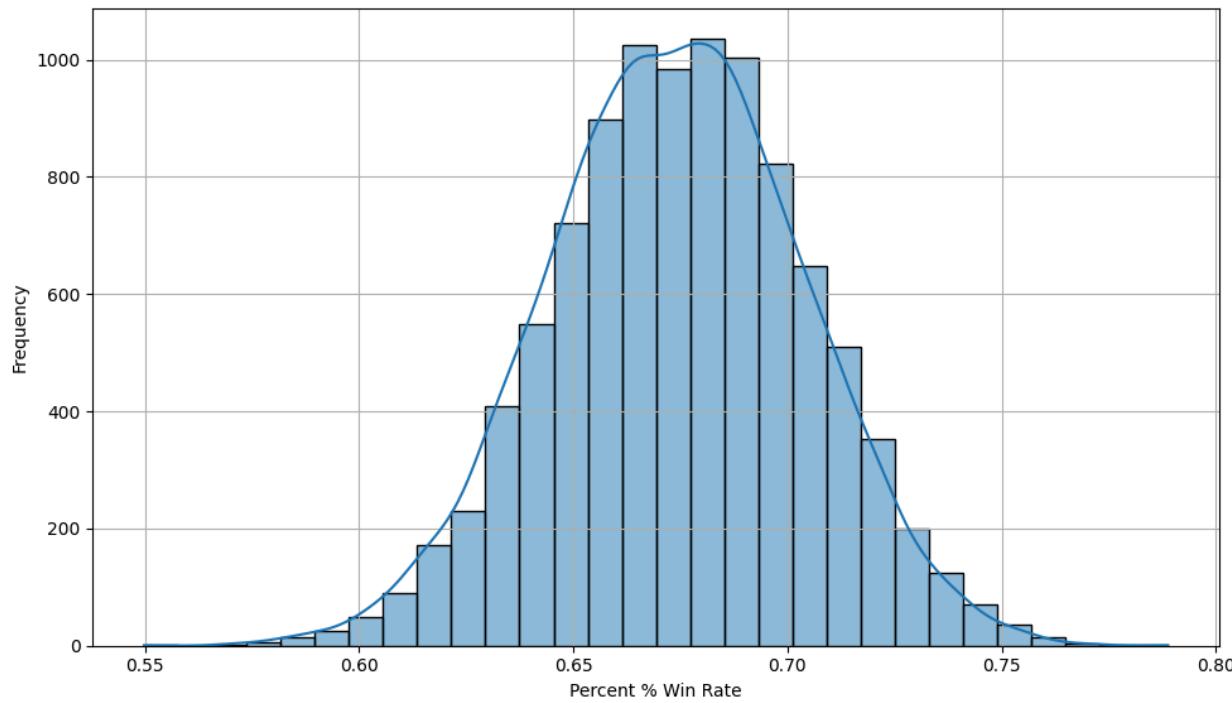
Terminal PnL Distribution Stats



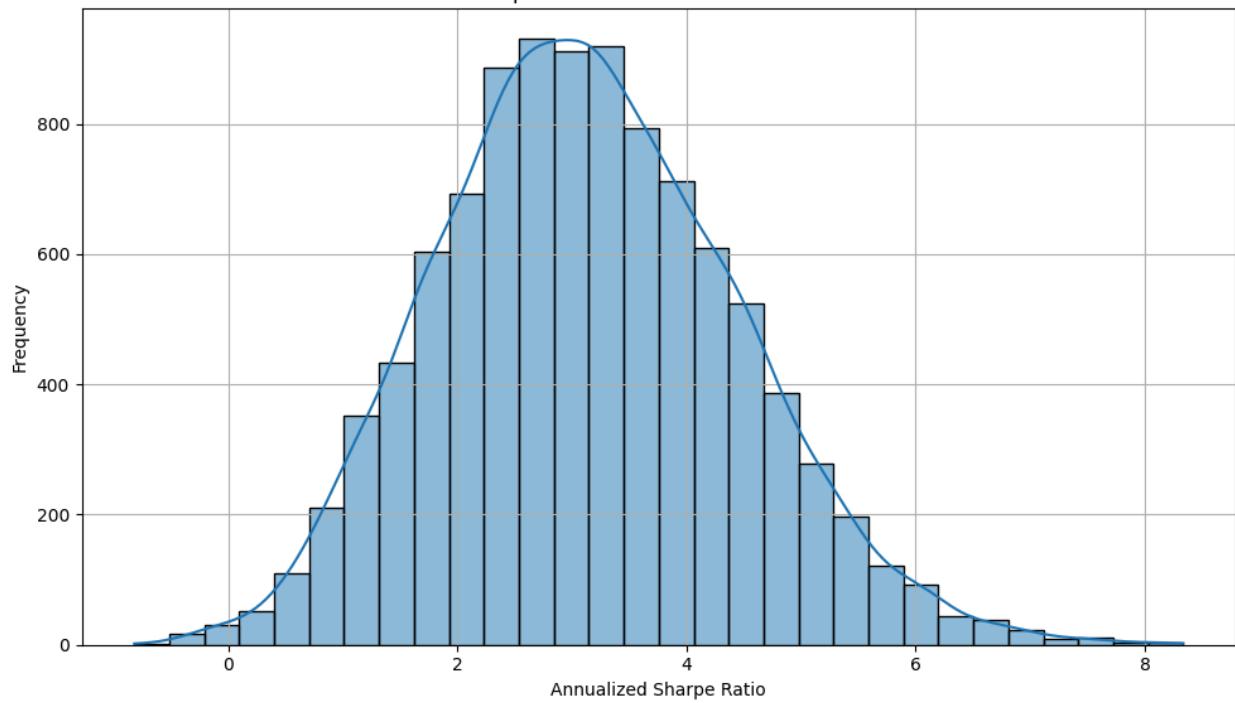
Longest Drawdown Distribution of Simulated PnL Paths



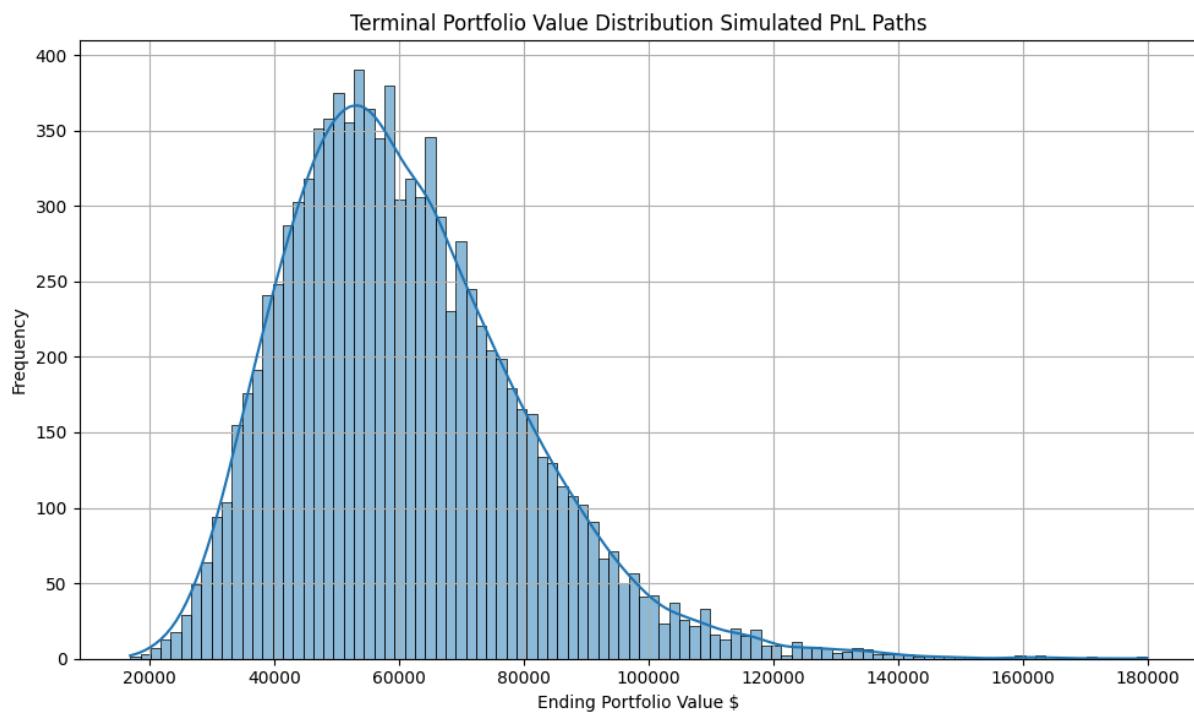
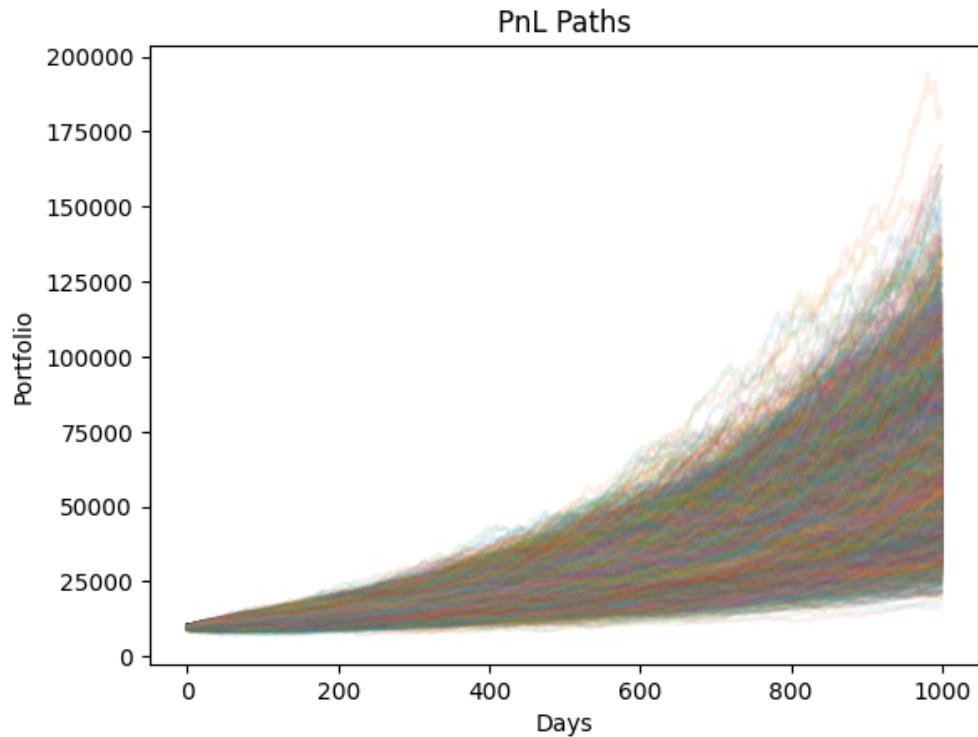
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

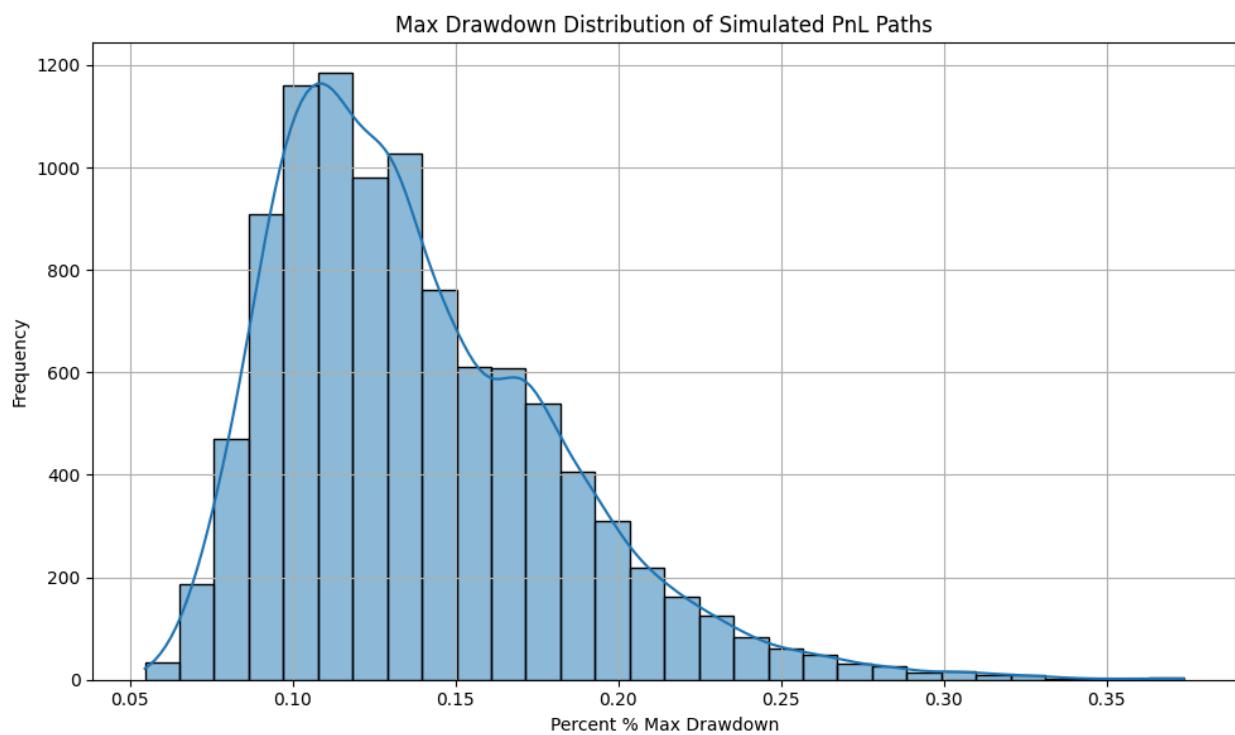


30% Kelly (4 years)

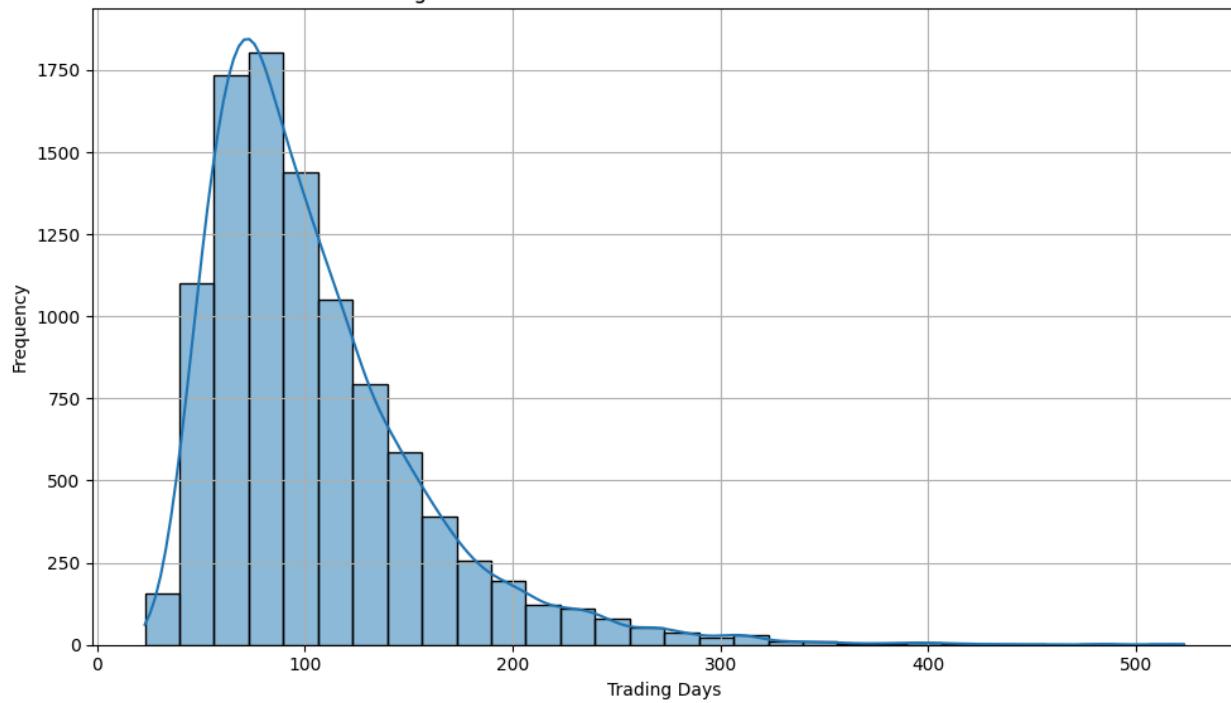


count	10,000.00
mean	60,993.88
std	19,300.39
min	16,887.23
25%	47,153.82
50%	58,331.87
75%	72,082.16
max	179,884.36

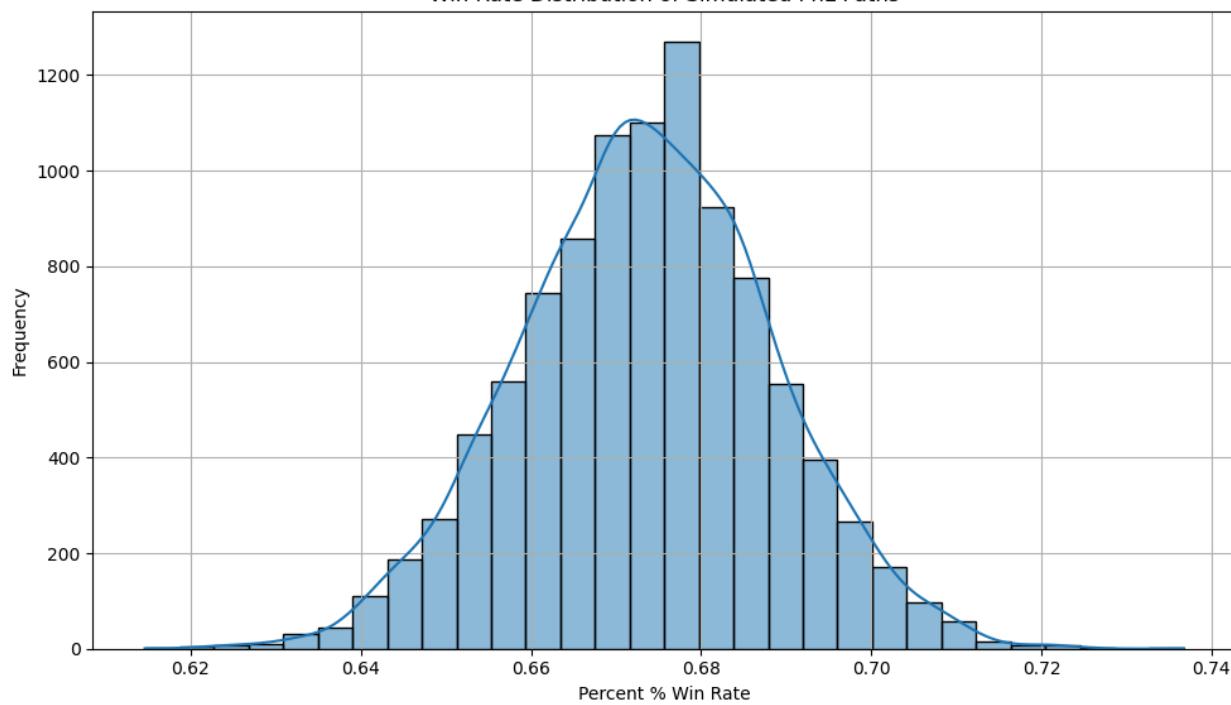
Terminal PnL Distribution Stats

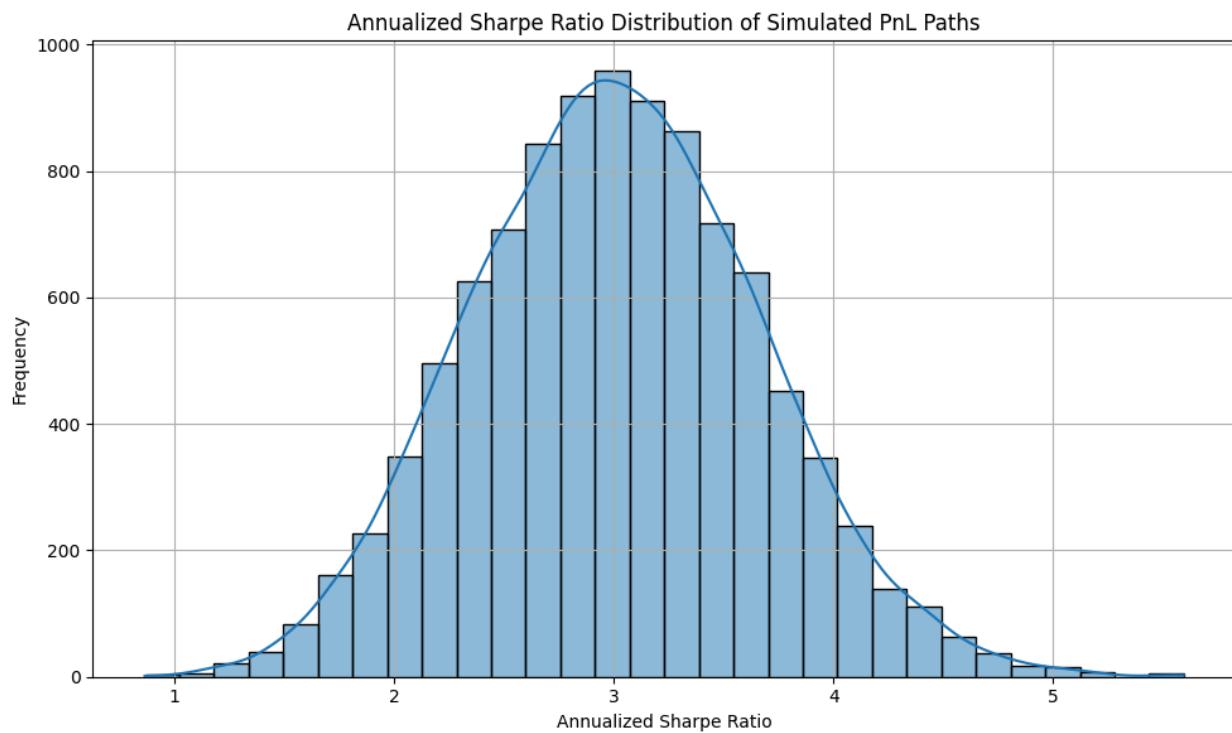


Longest Drawdown Distribution of Simulated PnL Paths

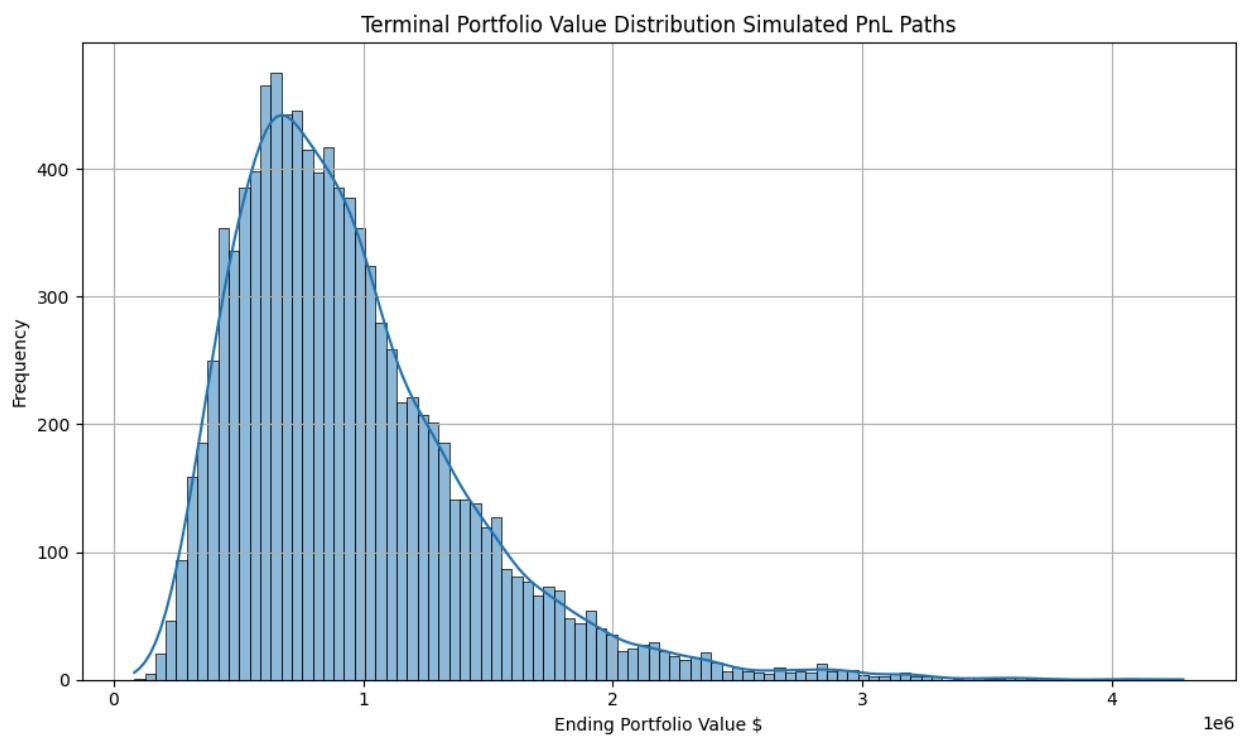
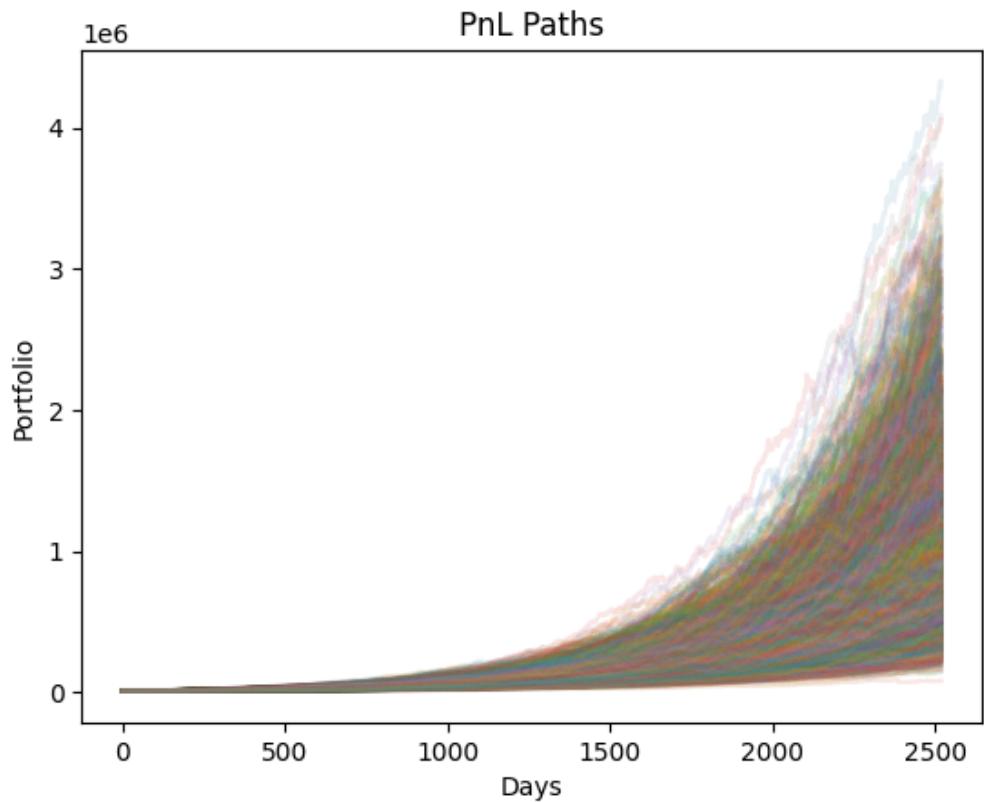


Win Rate Distribution of Simulated PnL Paths



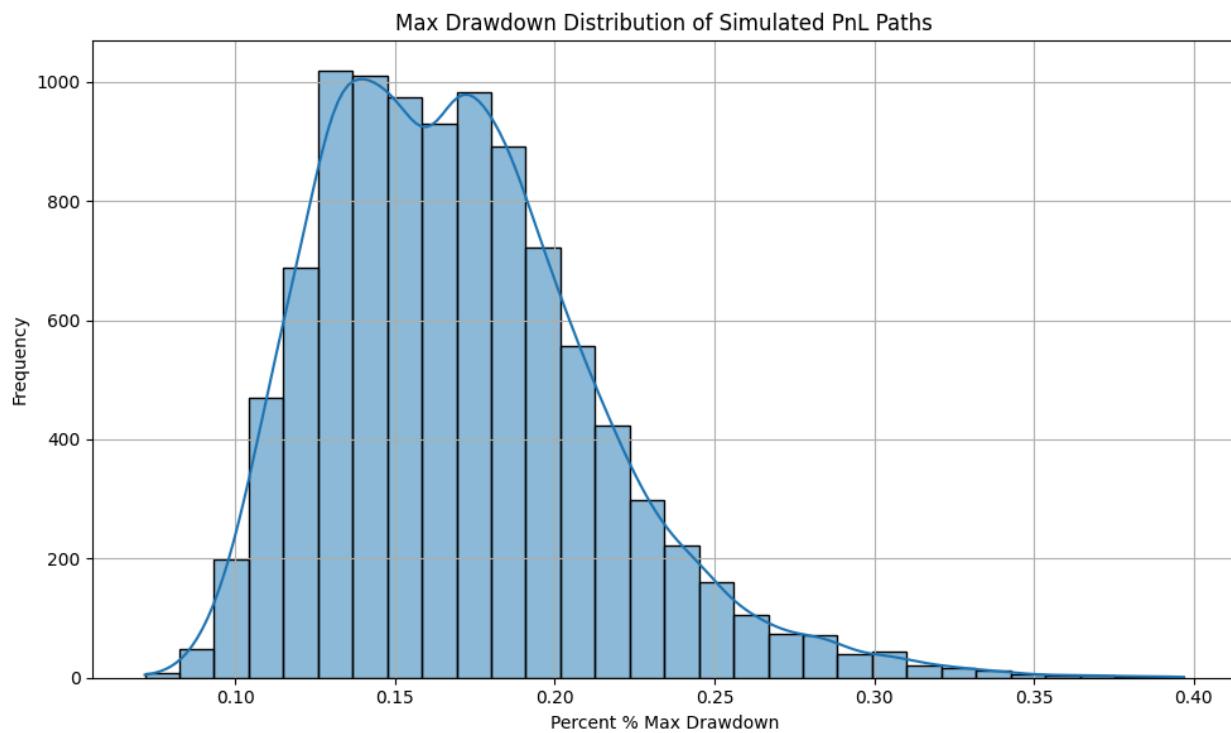


30% Kelly (10 years)

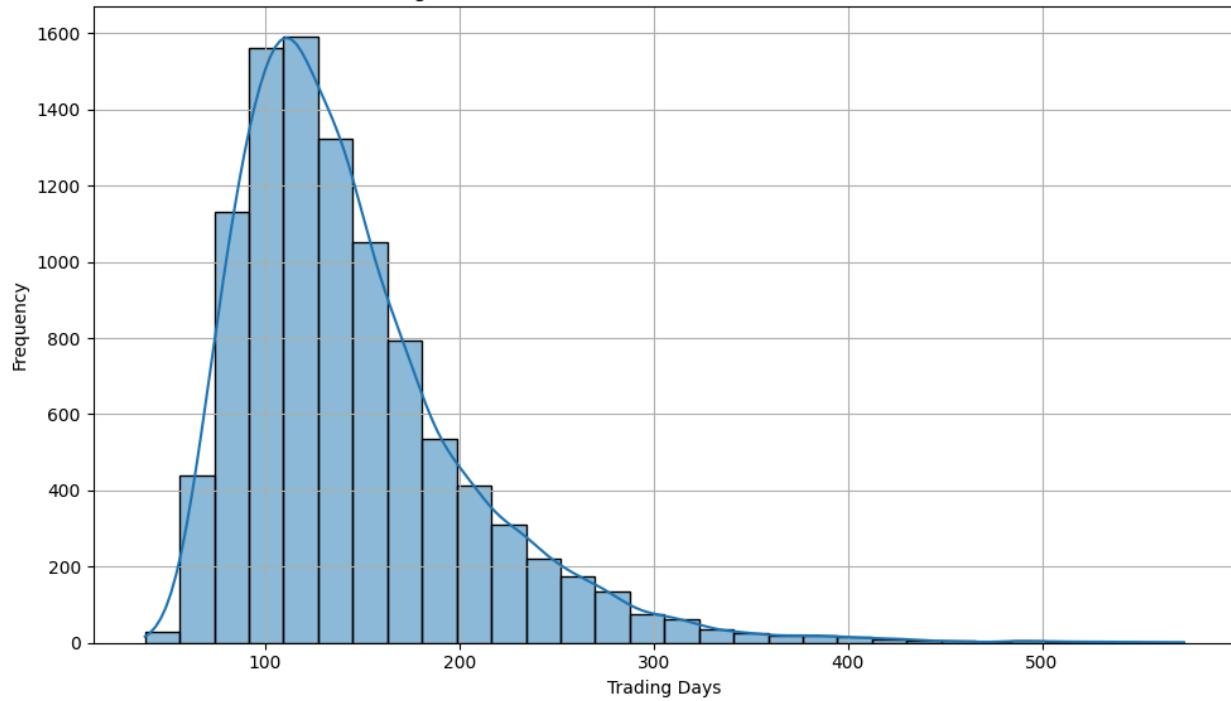


count	10,000.00
mean	950,904.21
std	486,194.87
min	82,926.55
25%	610,785.12
50%	852,507.25
75%	1,177,371.88
max	4,284,591.05

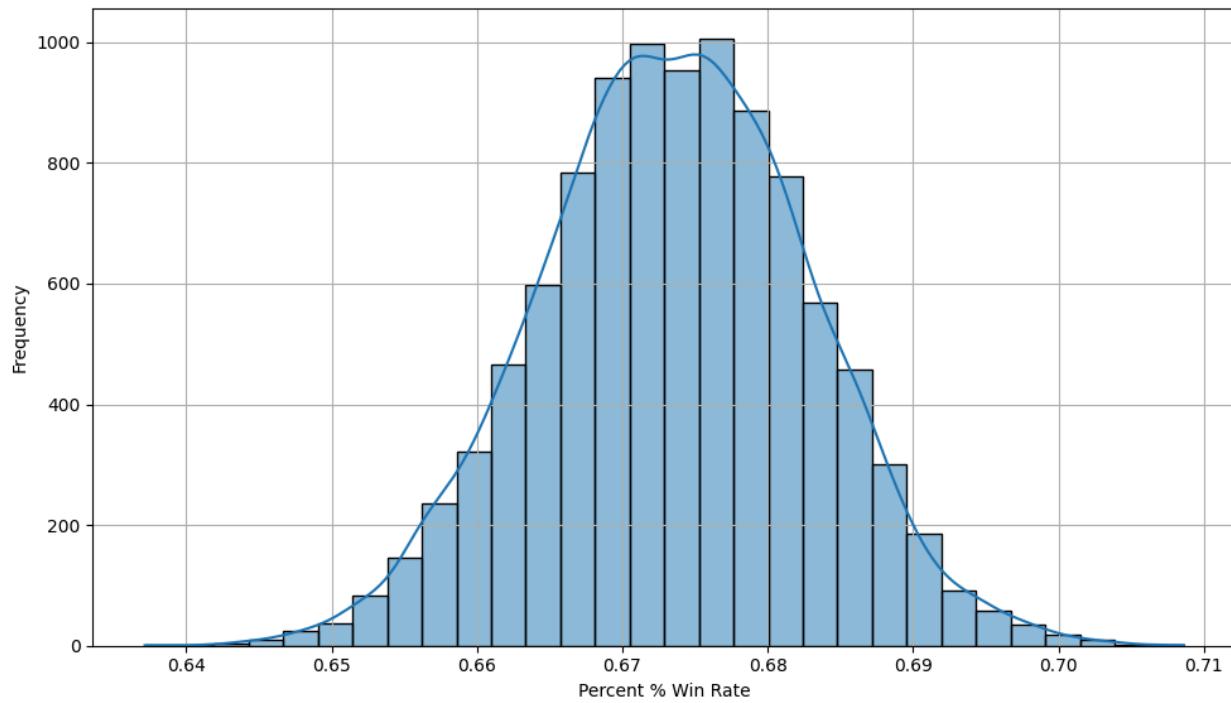
Terminal PnL Distribution Stats



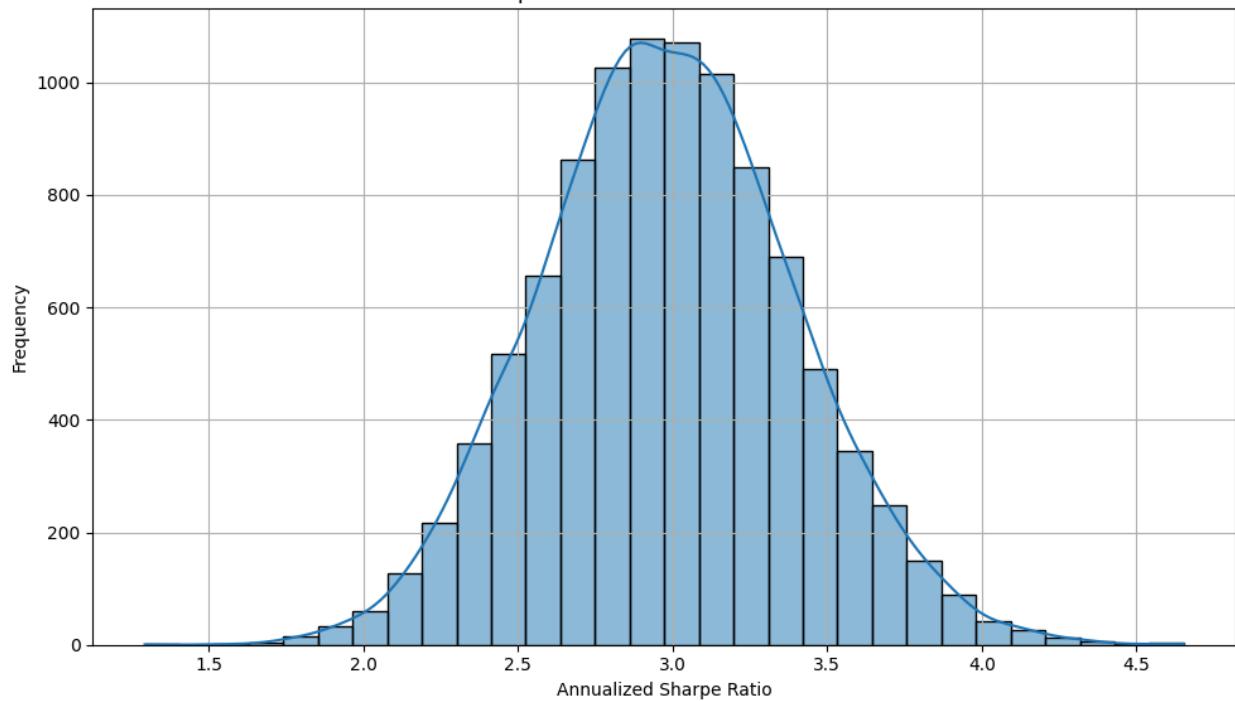
Longest Drawdown Distribution of Simulated PnL Paths



Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

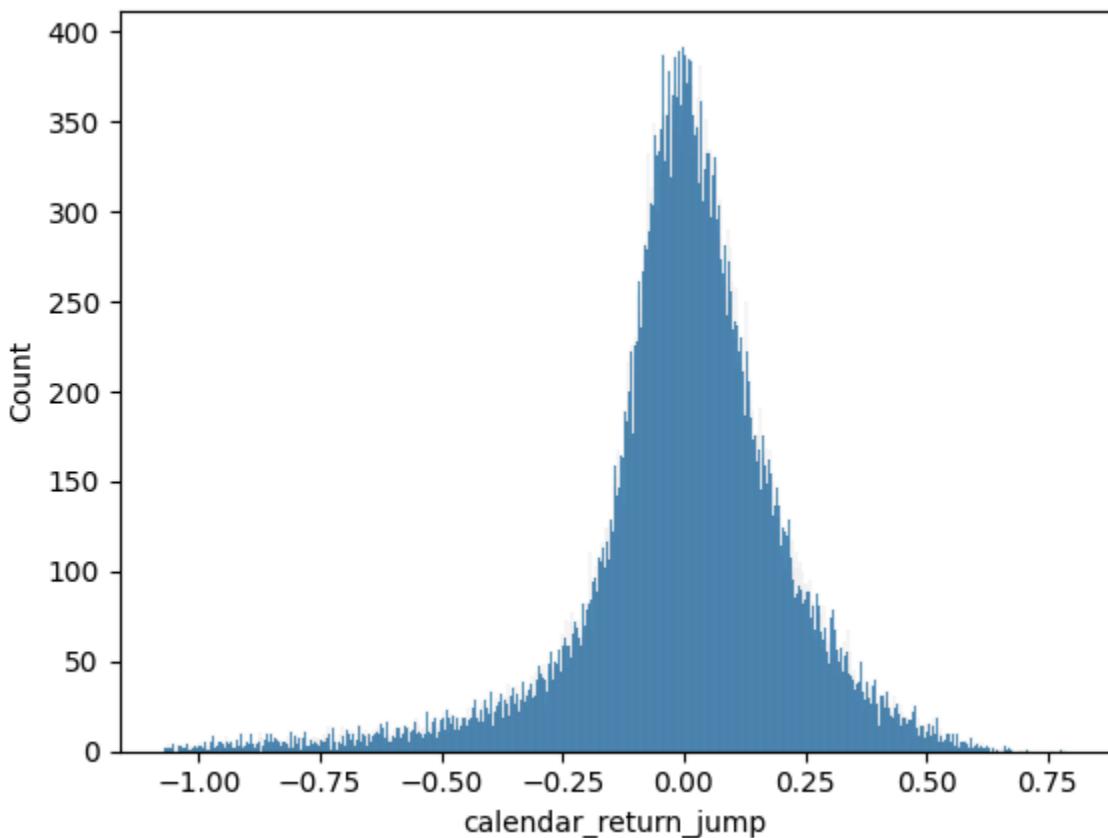


Calendar (Jump)

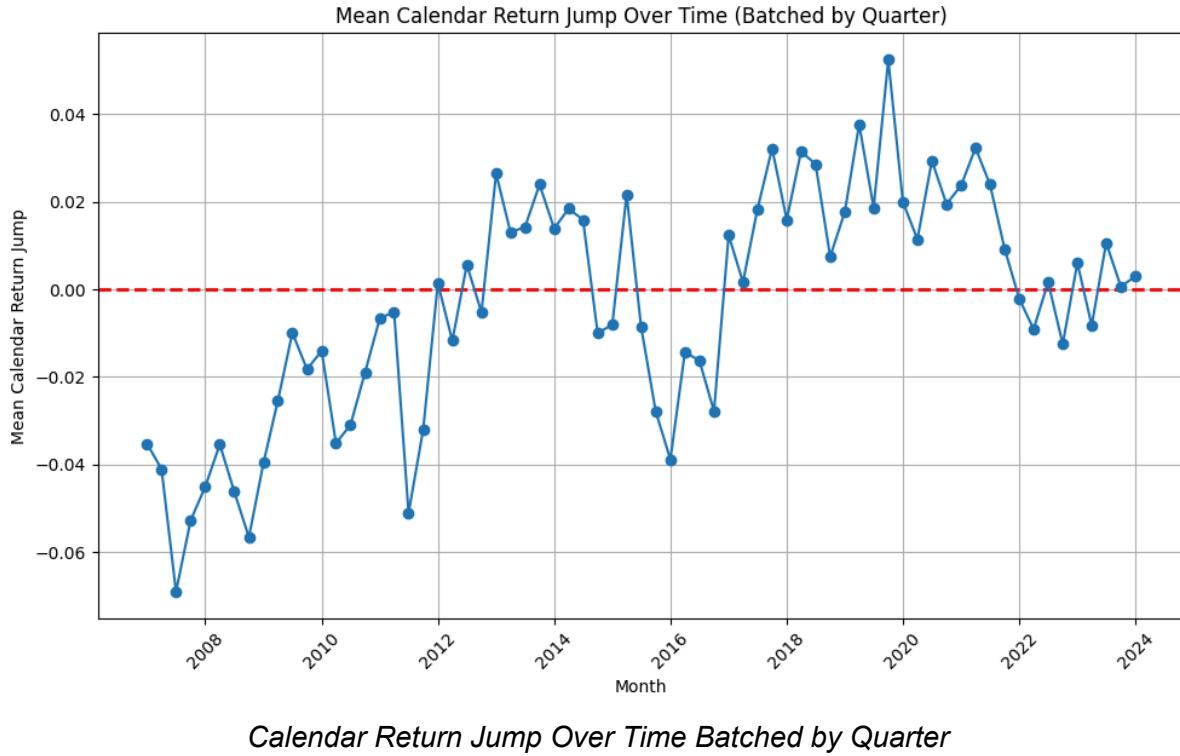
Return Distribution

count	67740.00000
mean	0.000006
std	0.207757
min	-1.071140
25%	-0.083854
50%	0.008669
75%	0.110970
max	0.788395

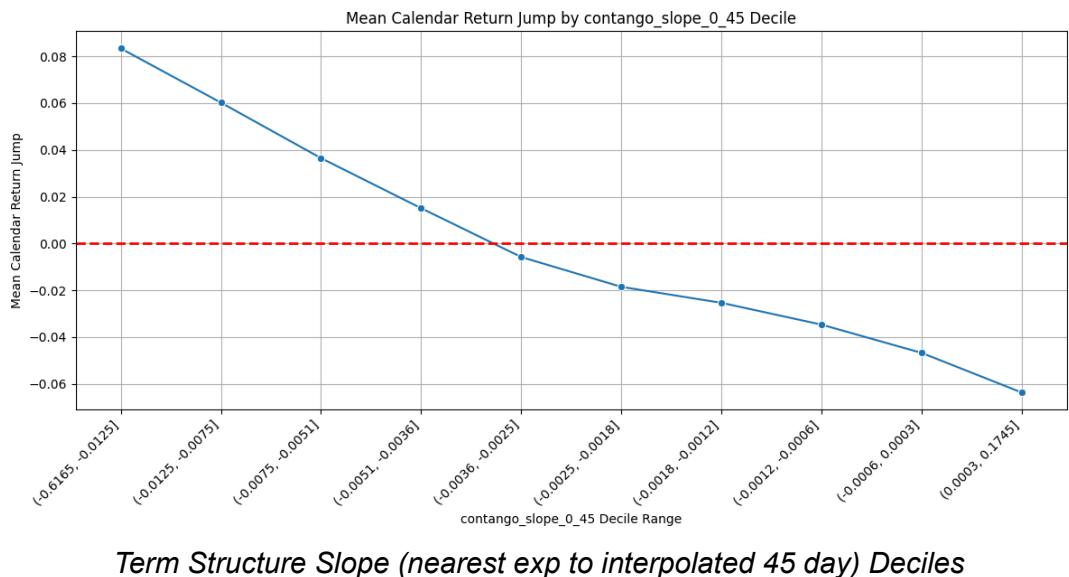
Calendar Return Jump Distribution Stats

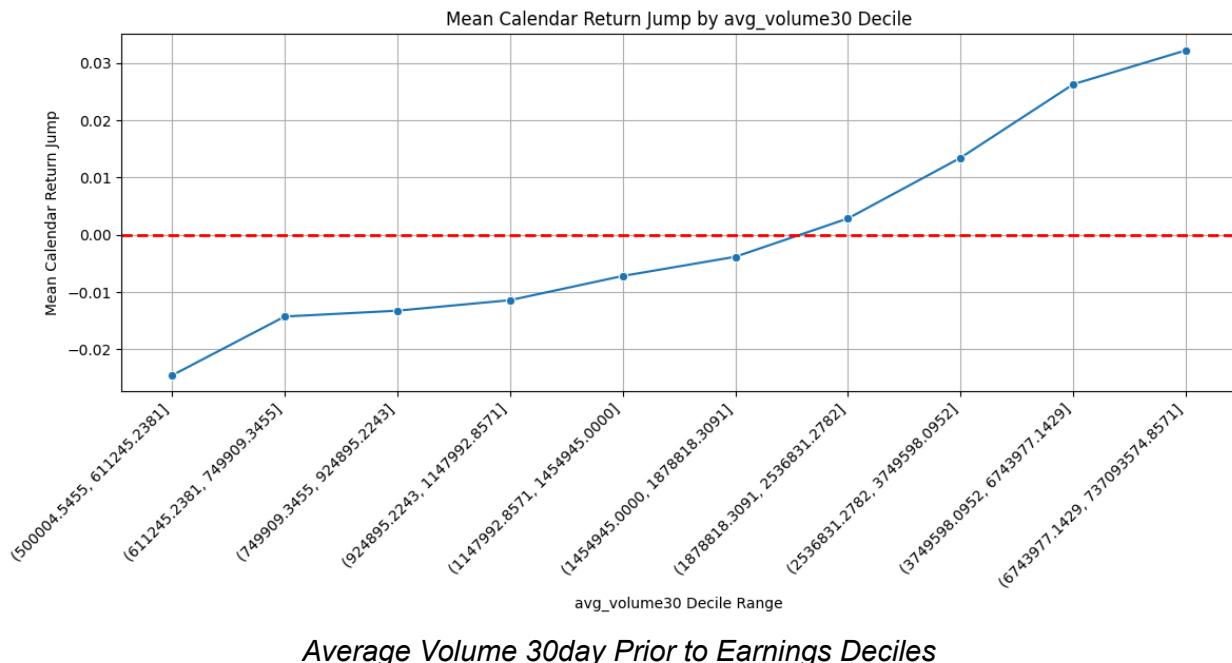


Calendar Return Jump Distribution Histogram

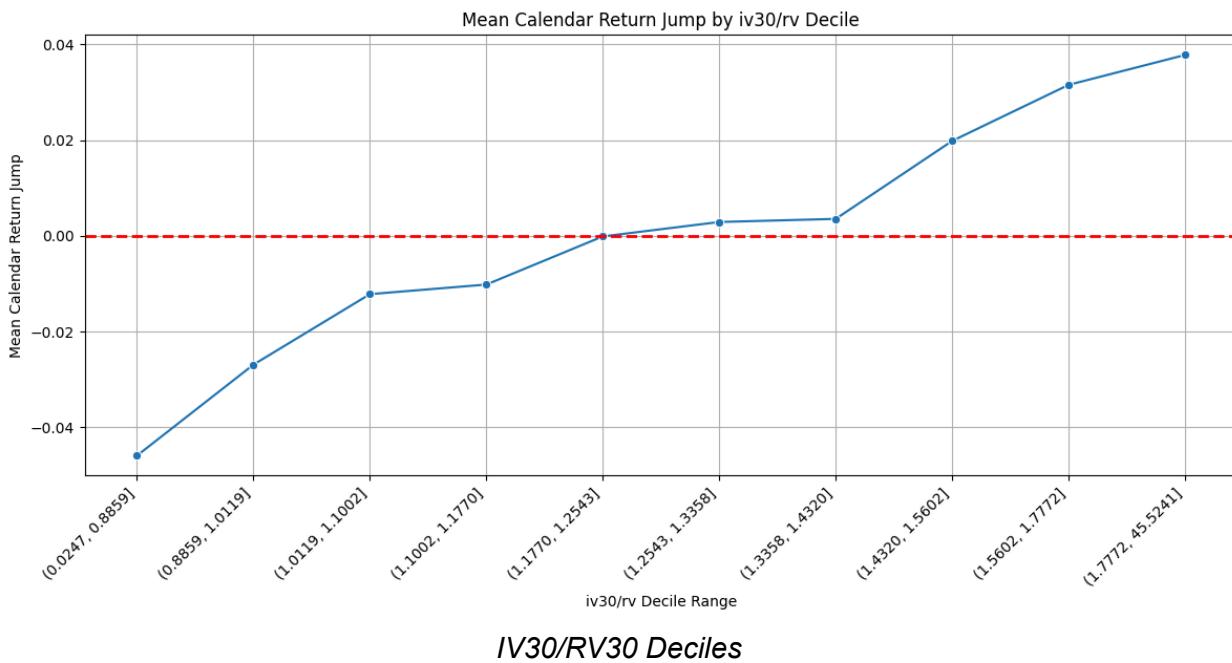


Predictor Variable Deciles





Average Volume 30day Prior to Earnings Deciles

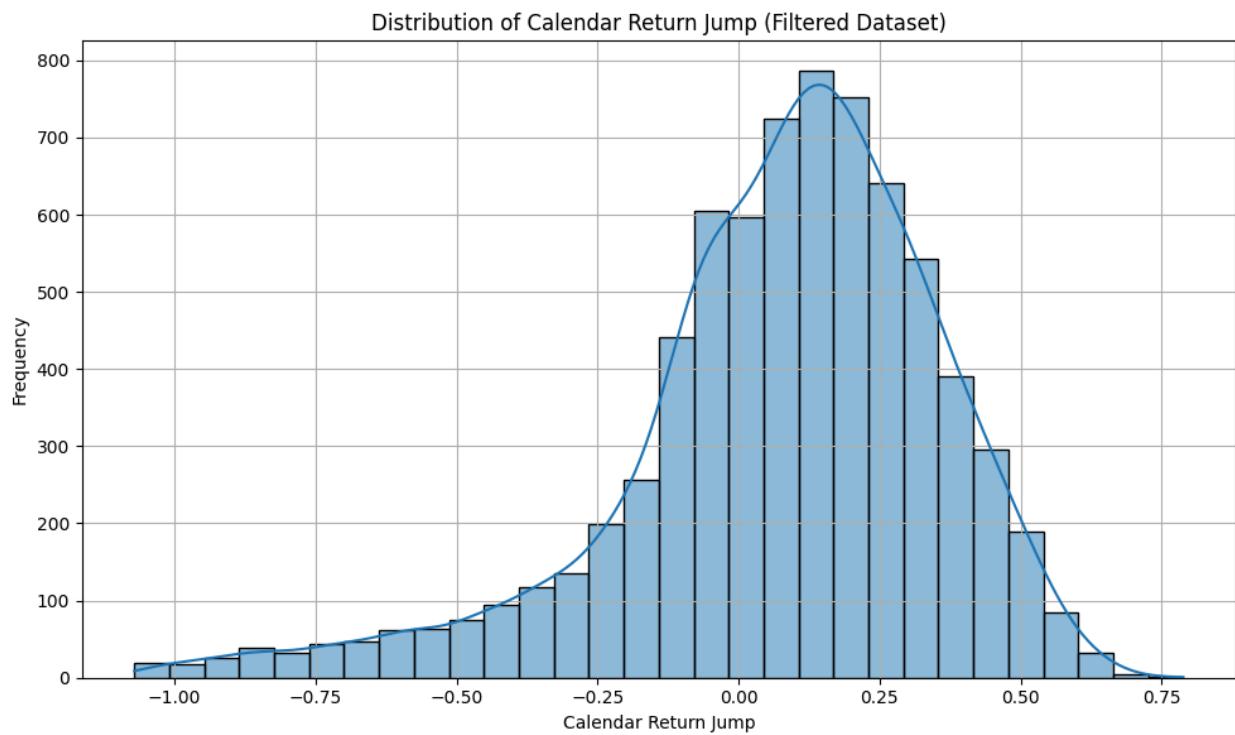


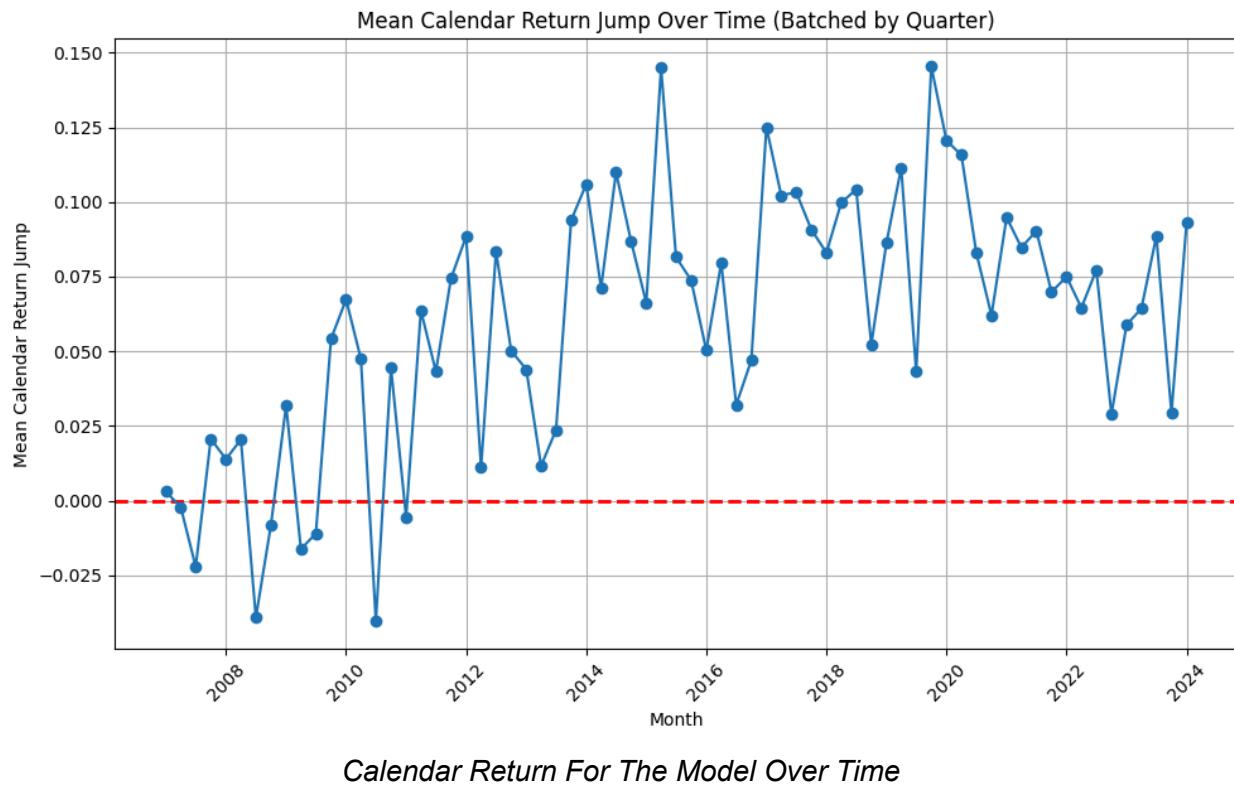
IV30/RV30 Deciles

The Model

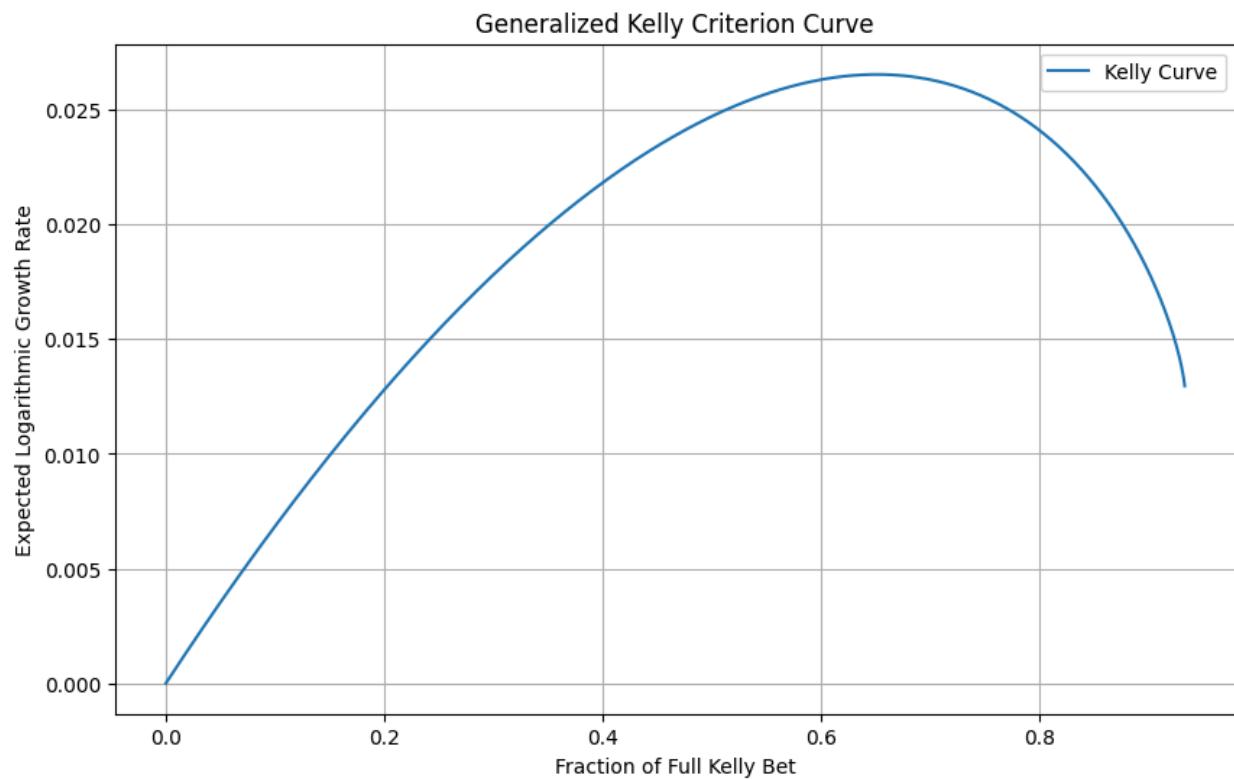
```
Size of dataset remaining: 10.80%
count      7313.000000
mean       0.072829
std        0.286135
min       -1.071140
25%       -0.062751
50%        0.111473
75%        0.264228
max        0.788395
```

Calendar Return Distribution For The Model

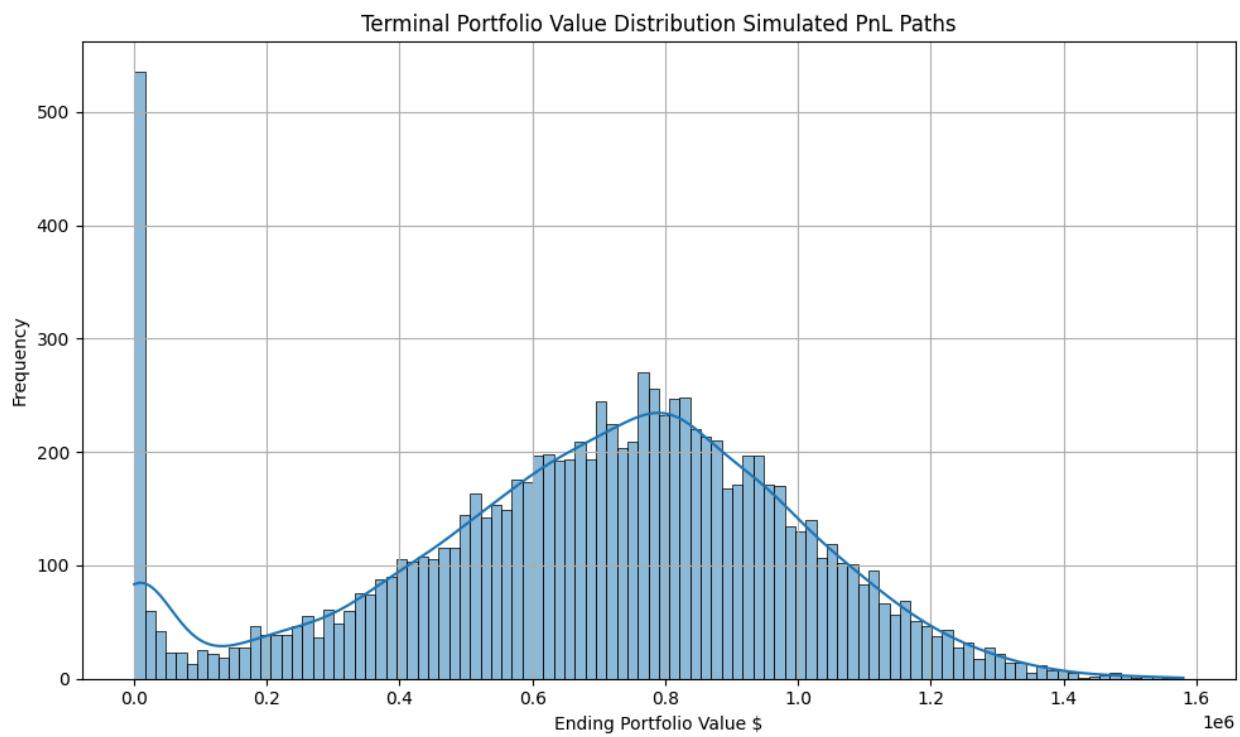
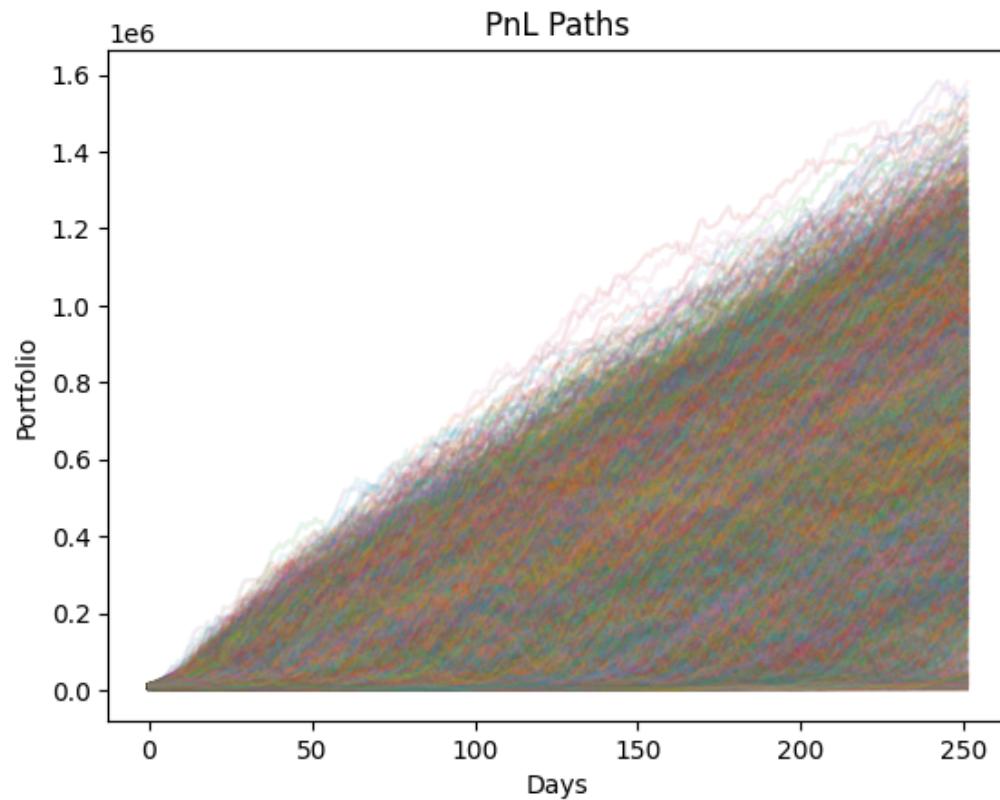




Kelly Criterion

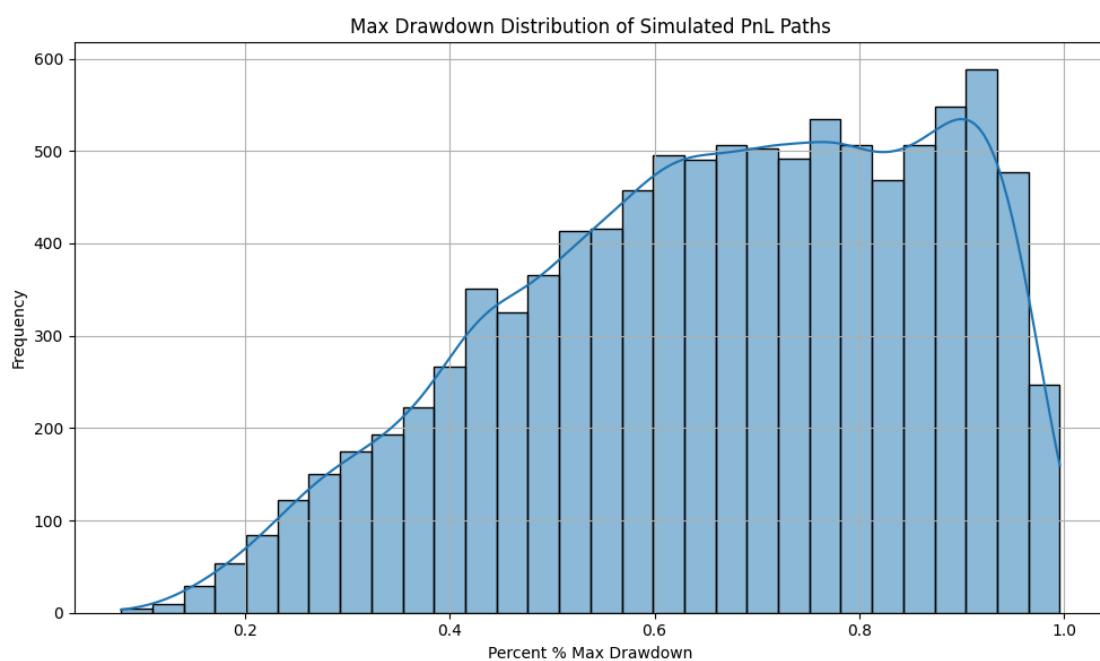


Full Kelly (1 Year)

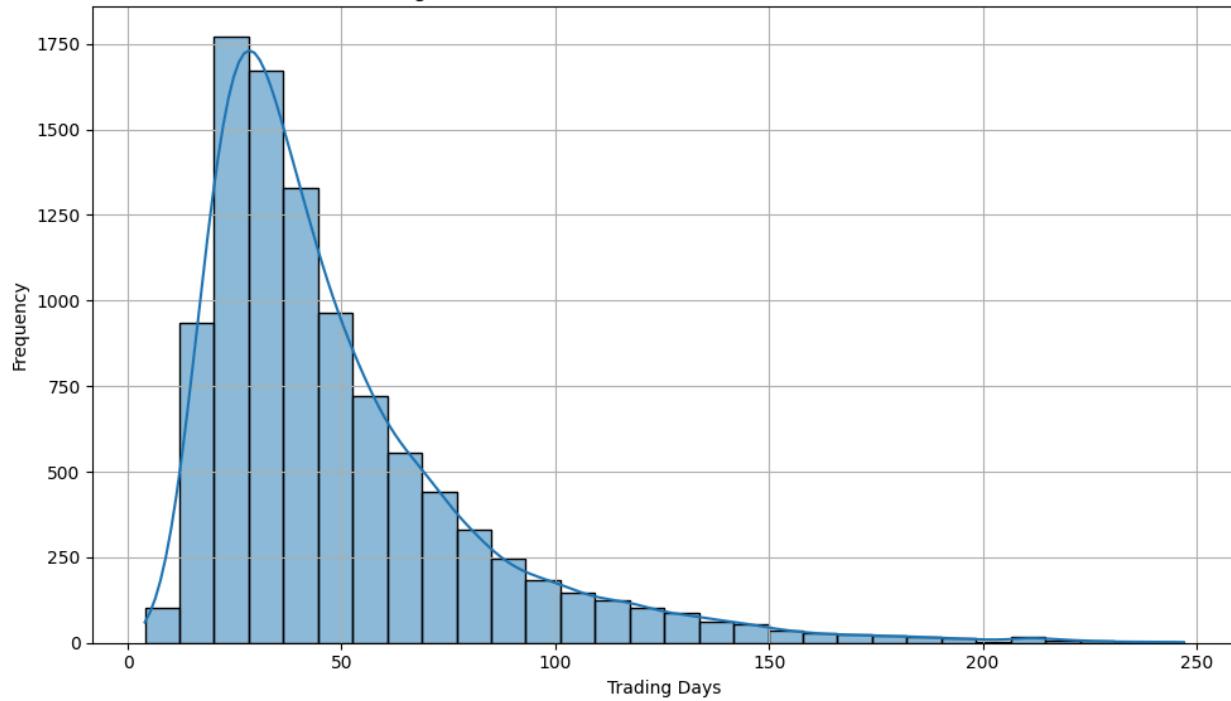


count	10,000.00
mean	689,352.47
std	307,815.01
min	377.97
25%	515,088.51
50%	724,934.28
75%	900,999.55
max	1,580,226.48

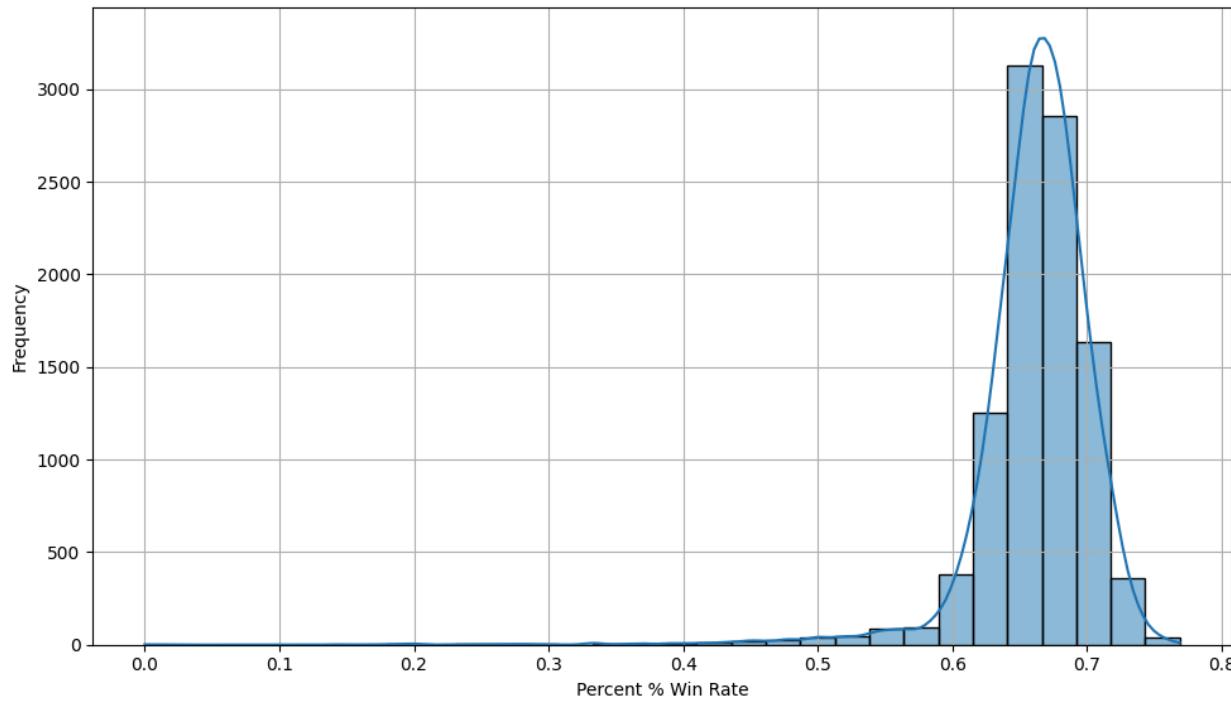
Terminal PnL Distribution Stats



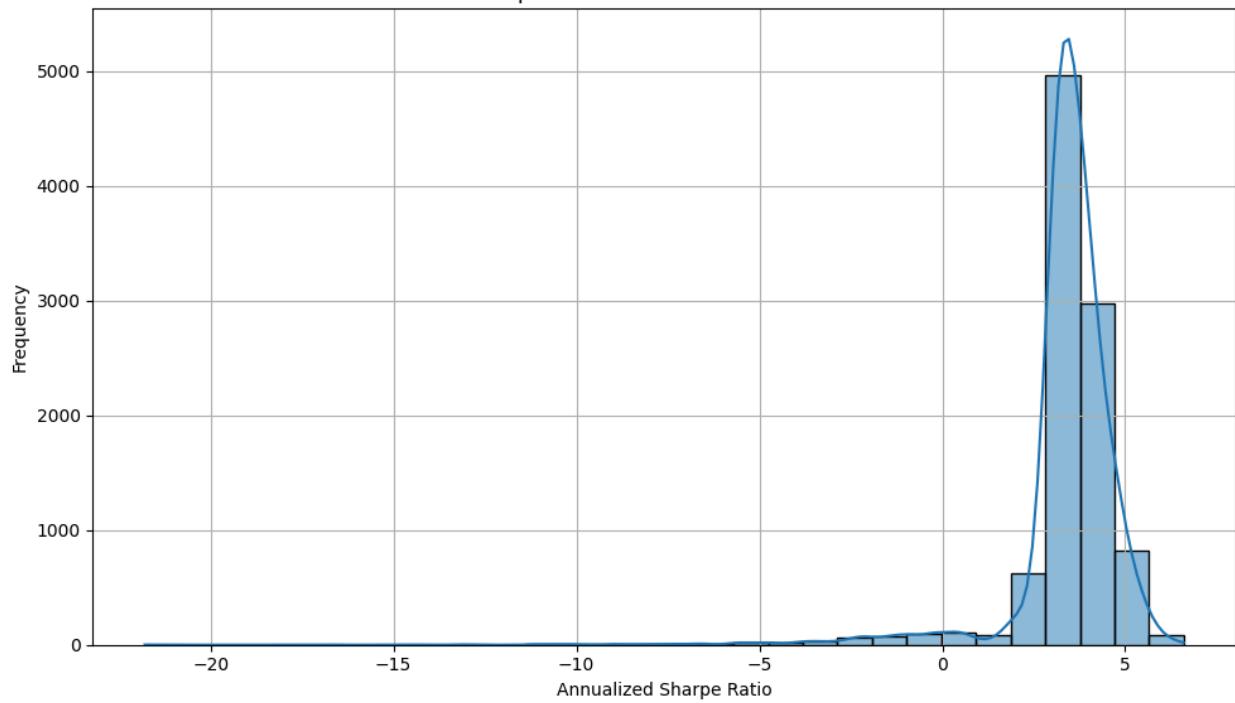
Longest Drawdown Distribution of Simulated PnL Paths



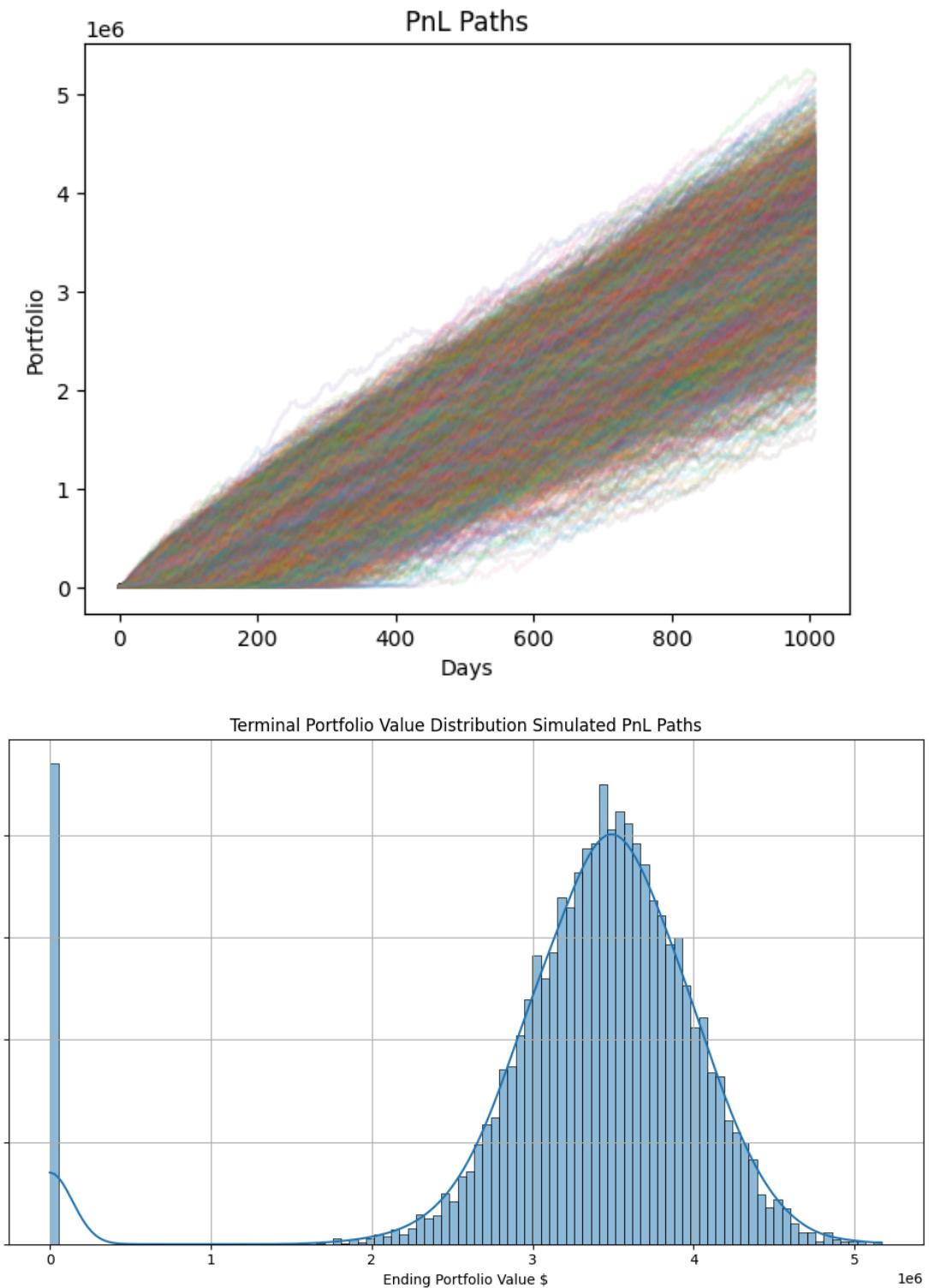
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

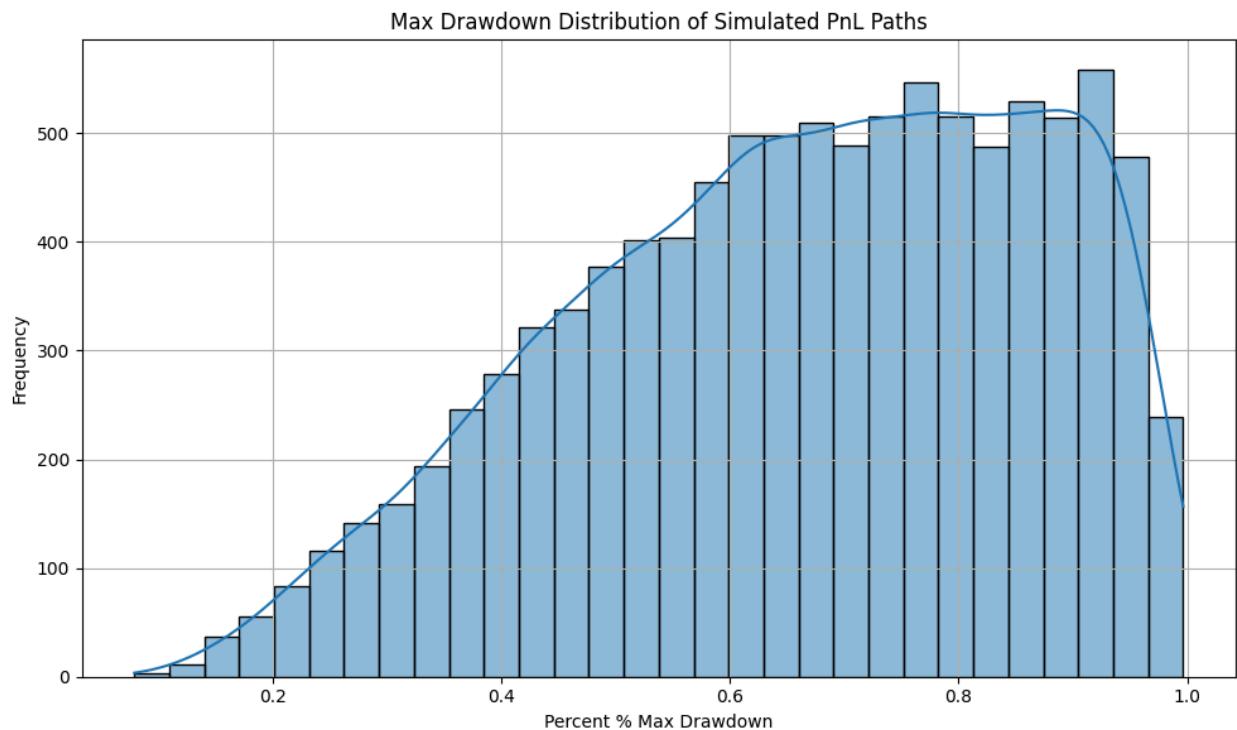


Full Kelly (4 years)

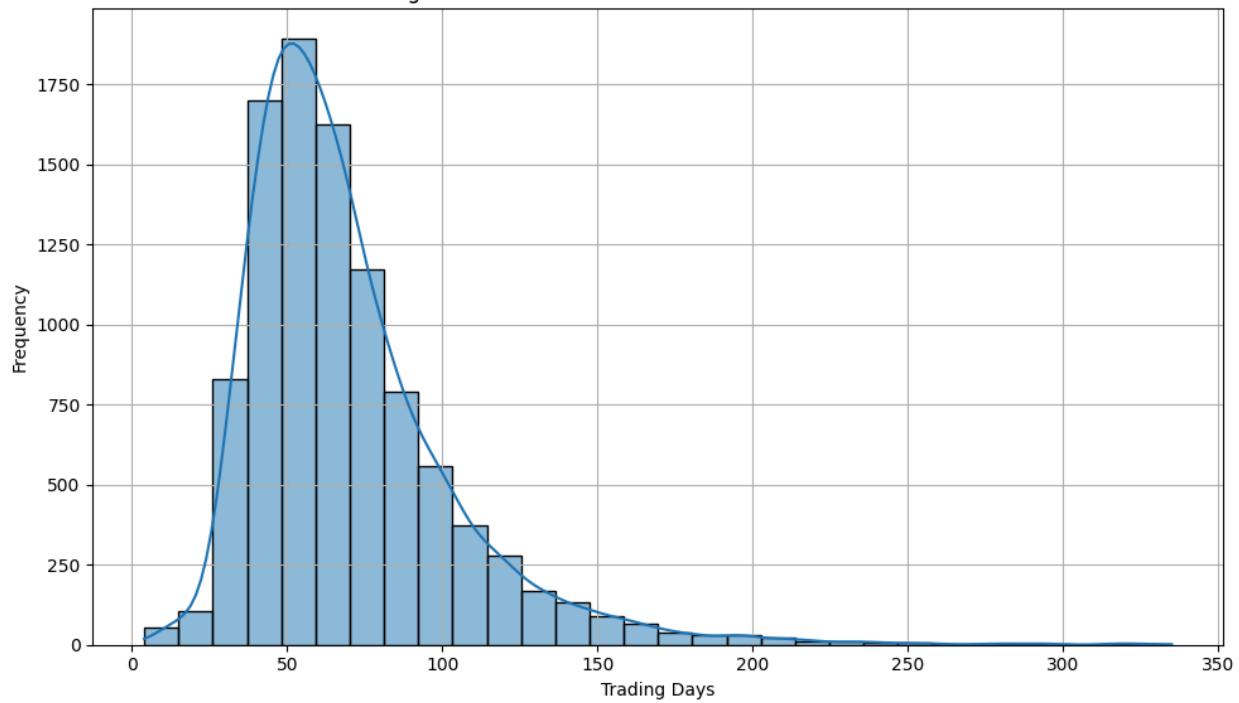


count	10,000.00
mean	3,315,134.30
std	873,702.33
min	429.39
25%	3,098,258.29
50%	3,455,859.11
75%	3,788,282.62
max	5,169,410.42

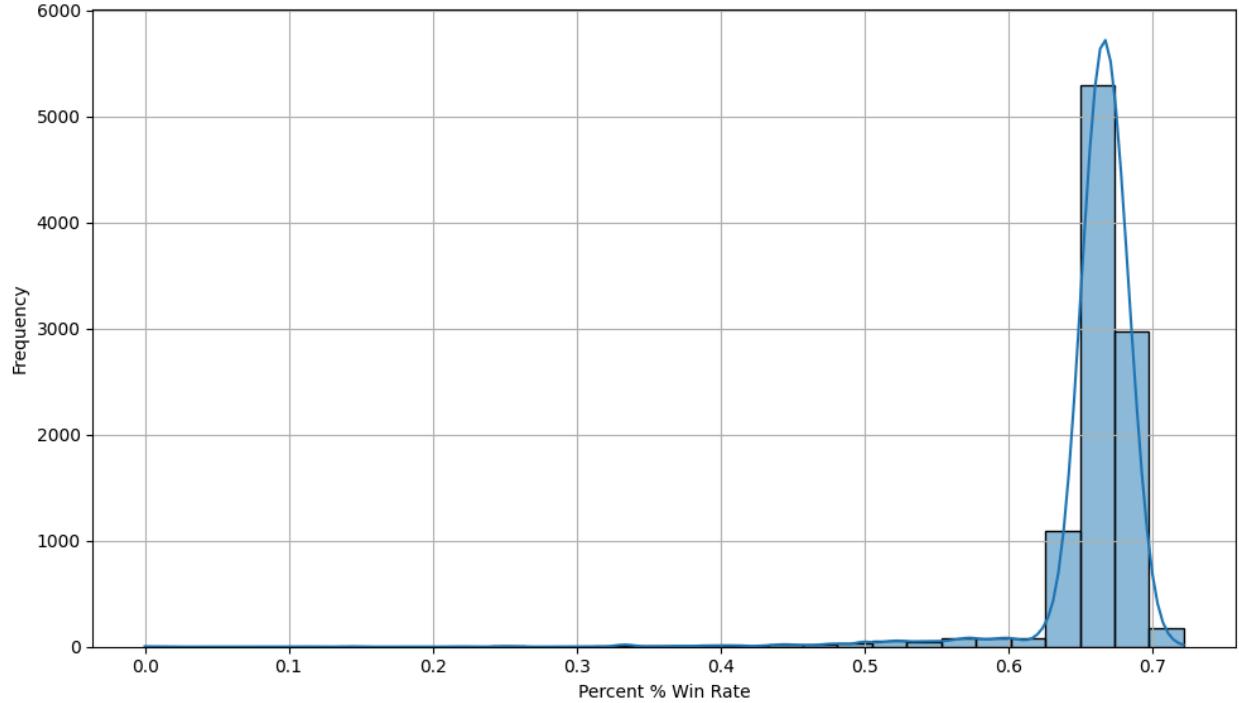
Terminal PnL Distribution Stats



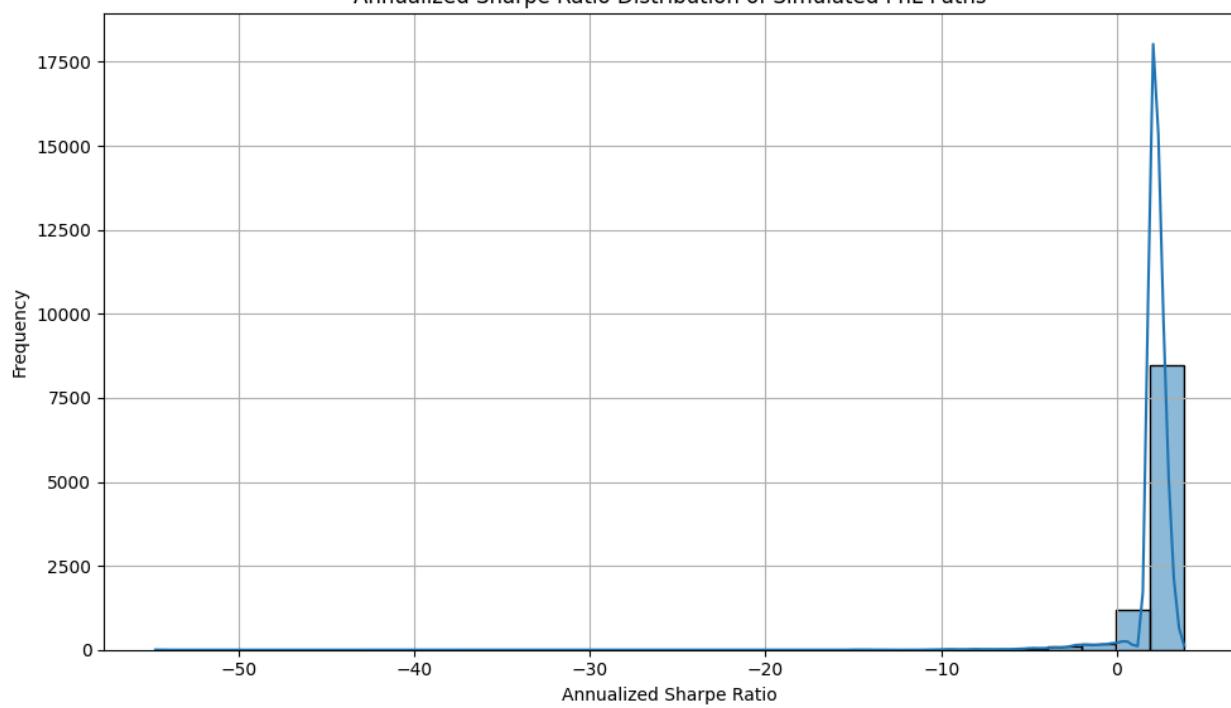
Longest Drawdown Distribution of Simulated PnL Paths



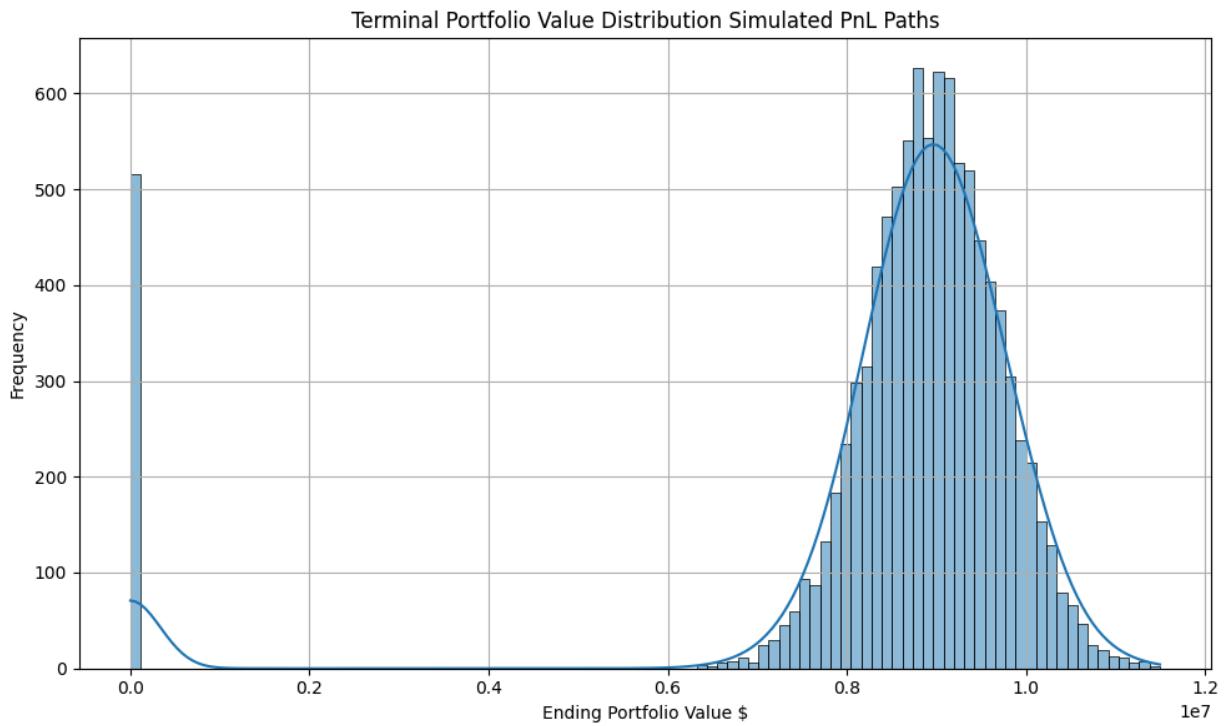
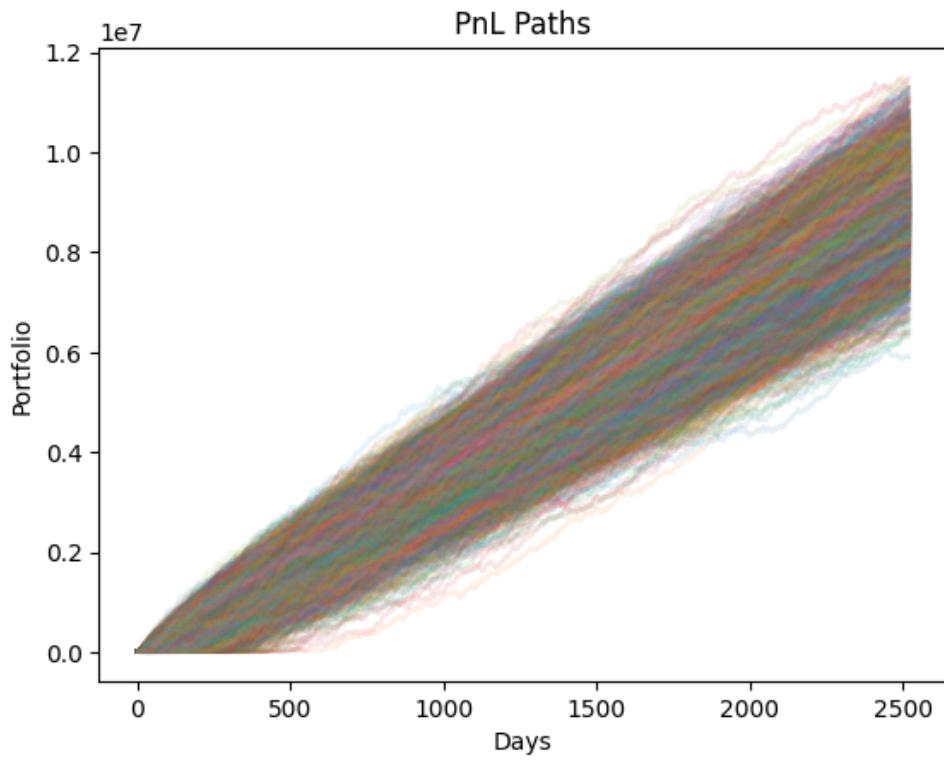
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

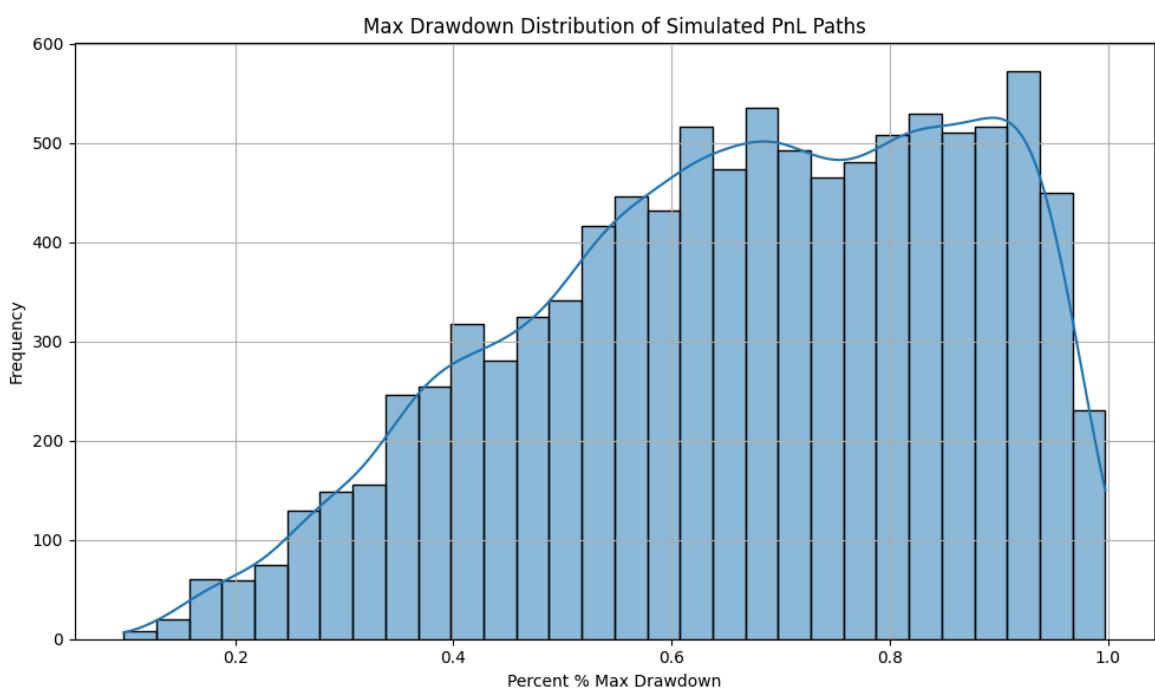


Full Kelly (10 Years)

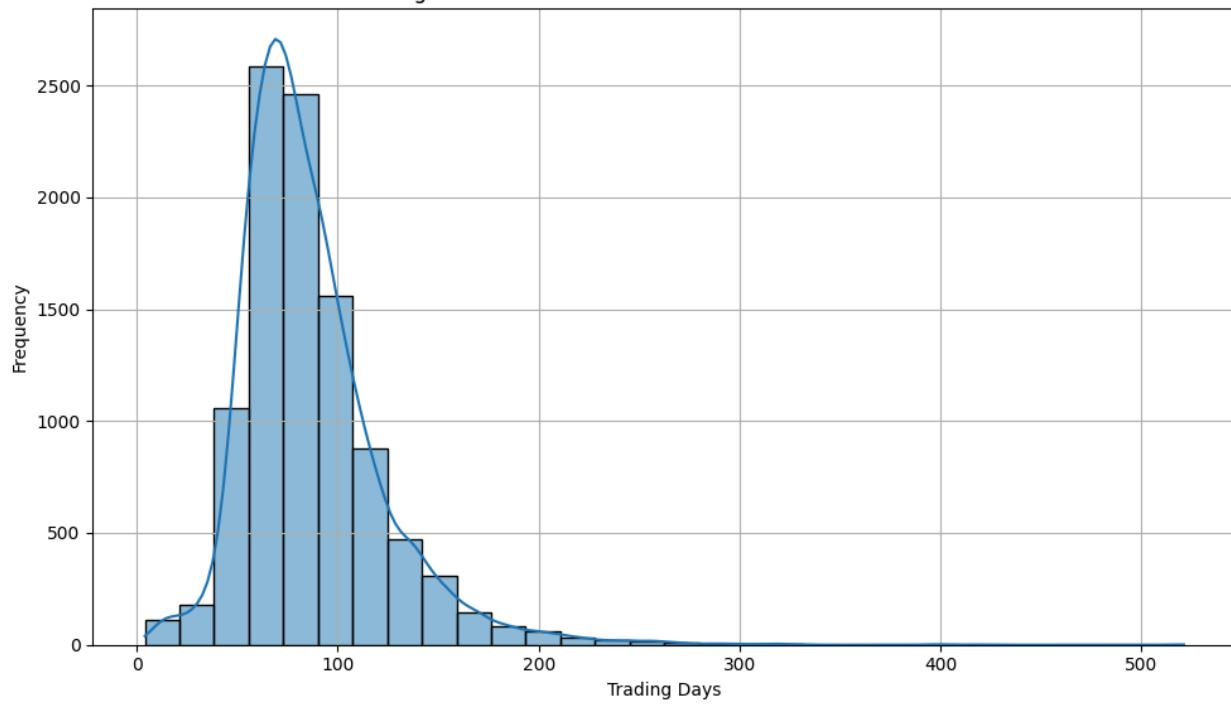


count	10,000.00
mean	8,515,396.47
std	2,109,105.81
min	429.39
25%	8,398,786.15
50%	8,928,930.20
75%	9,435,666.33
max	11,494,619.34

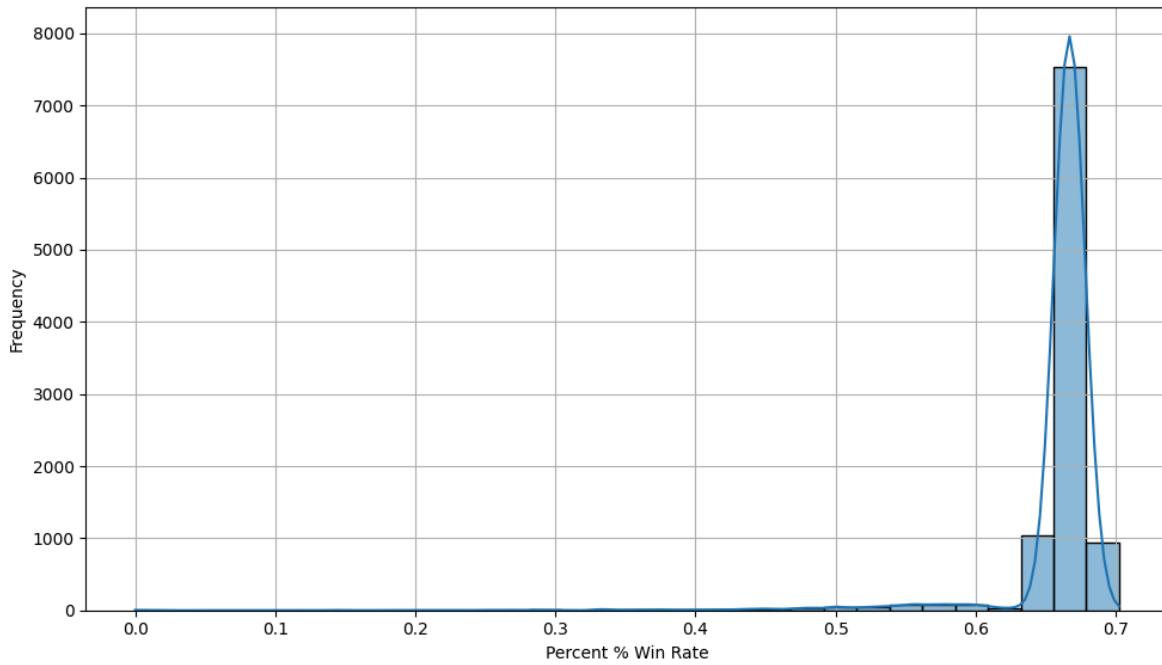
Terminal PnL Distribution Stats



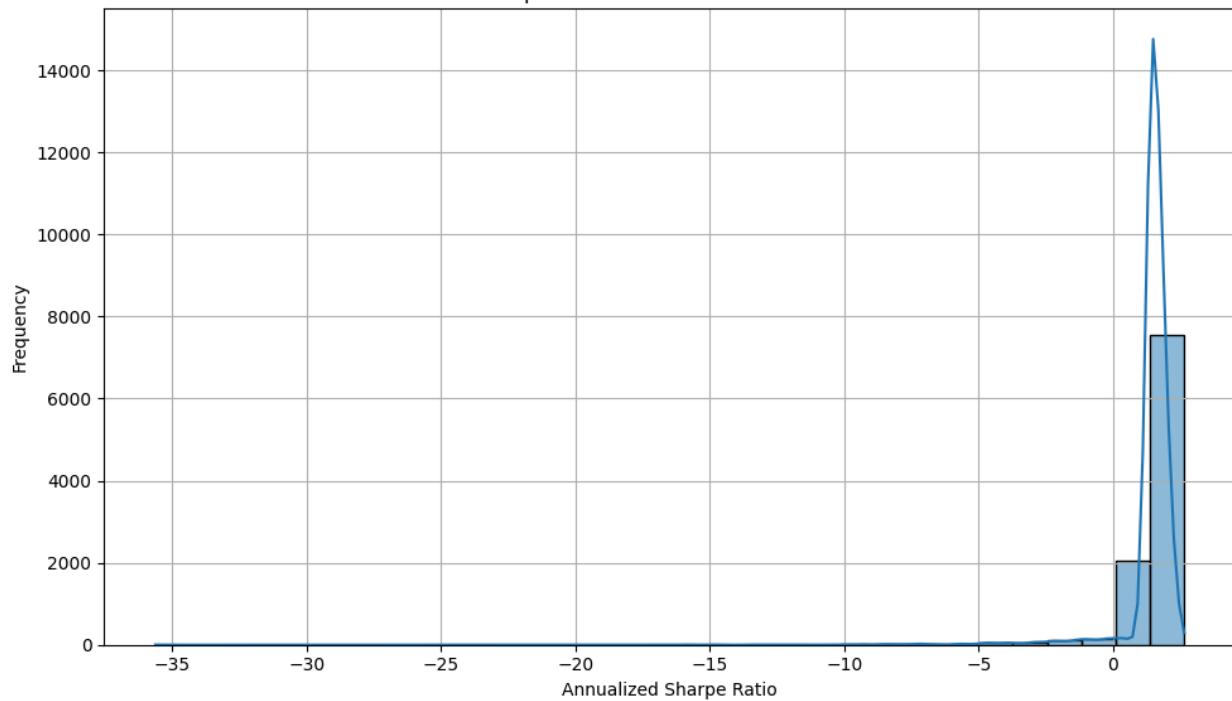
Longest Drawdown Distribution of Simulated PnL Paths



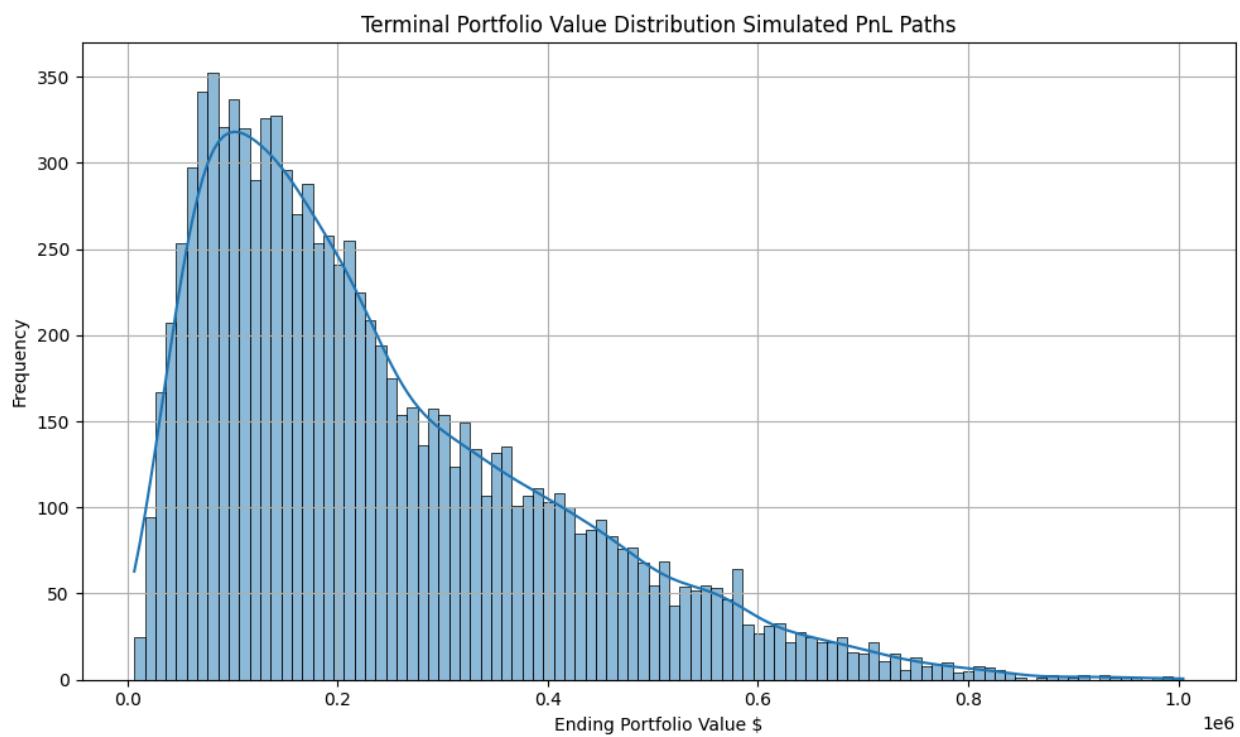
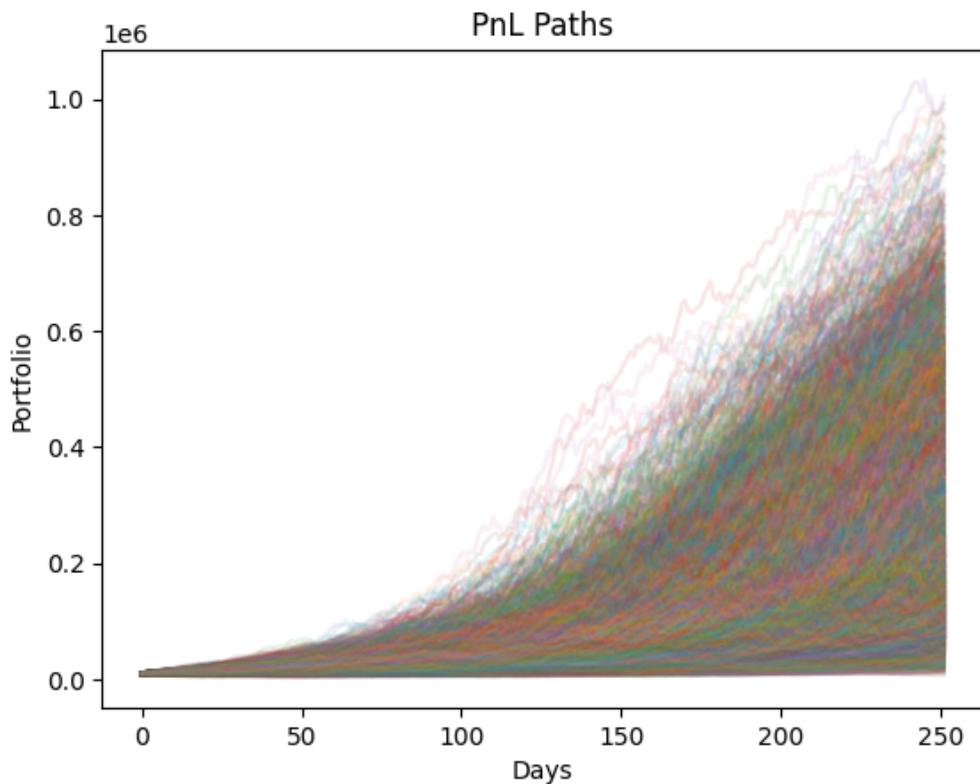
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

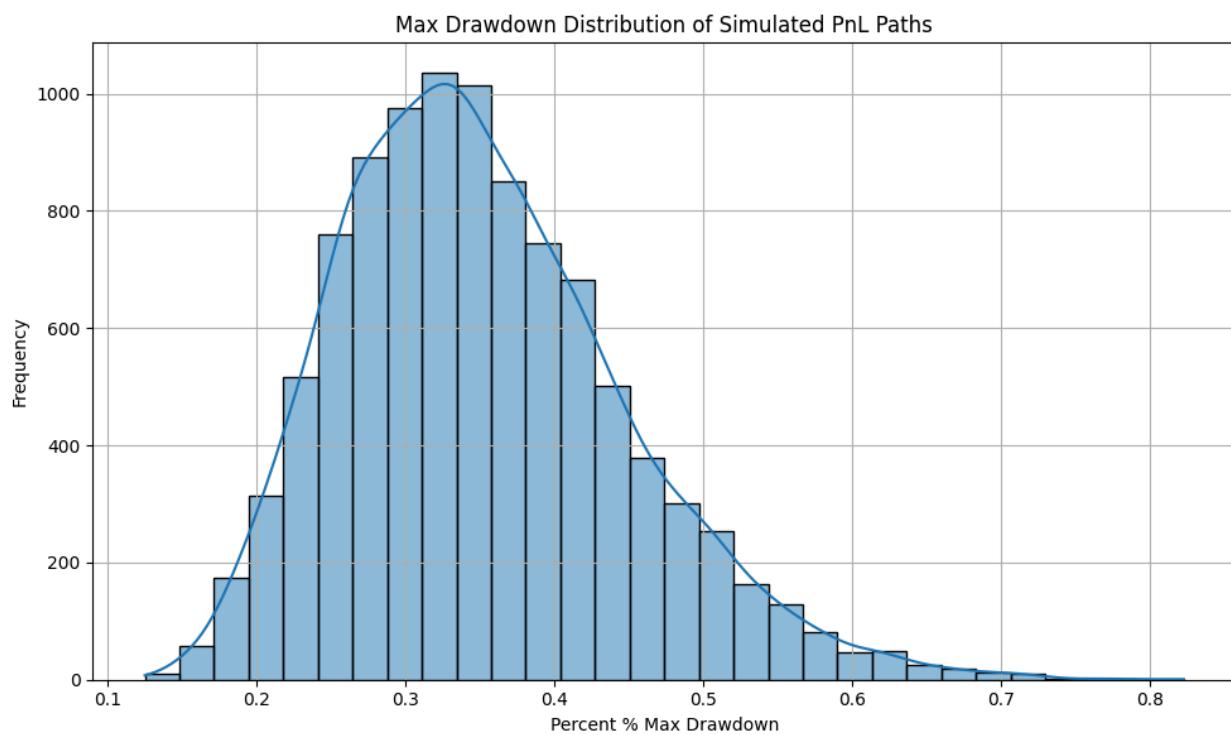


30% Kelly (1 Year)

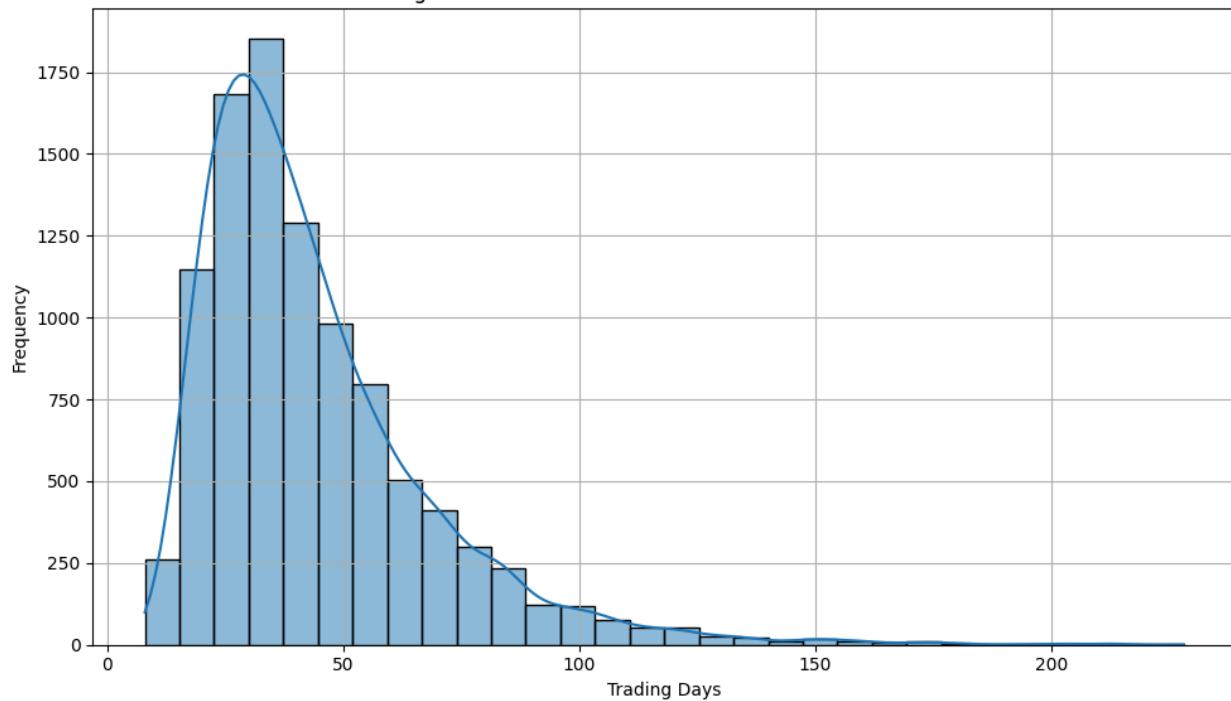


count	10,000.00
mean	240,945.57
std	168,770.54
min	6,767.49
25%	110,019.92
50%	195,587.72
75%	337,229.90
max	1,004,636.65

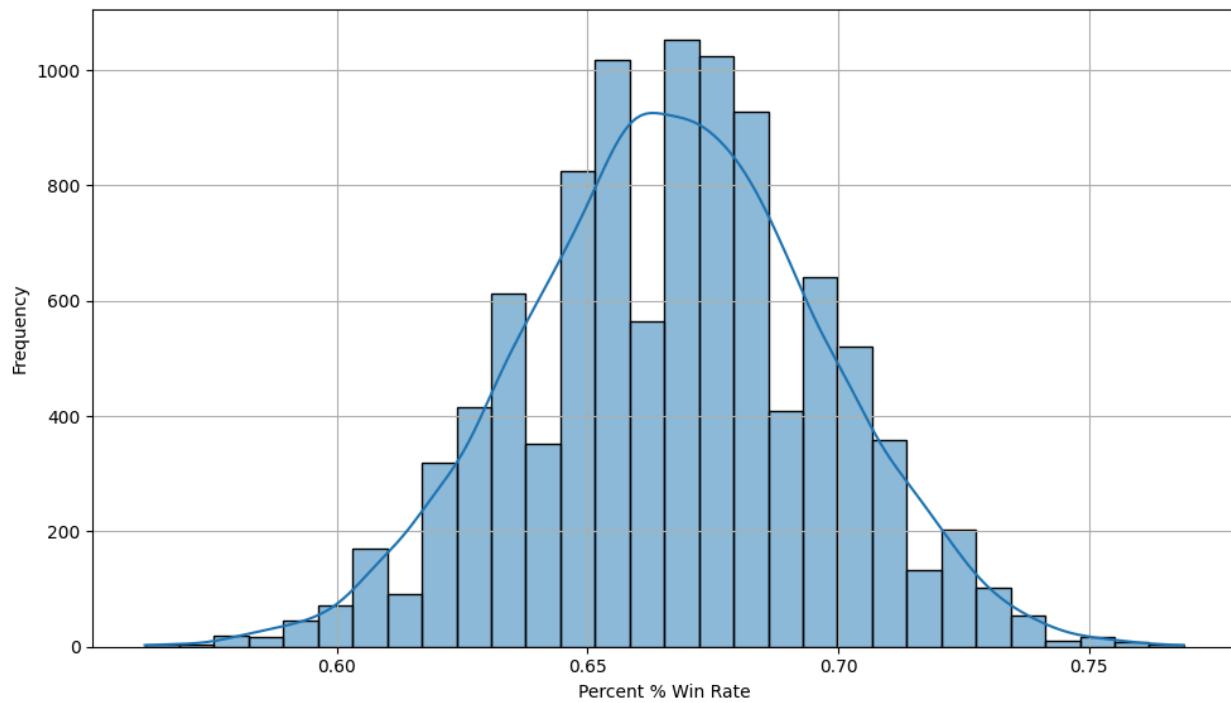
Terminal PnL Distribution Stats



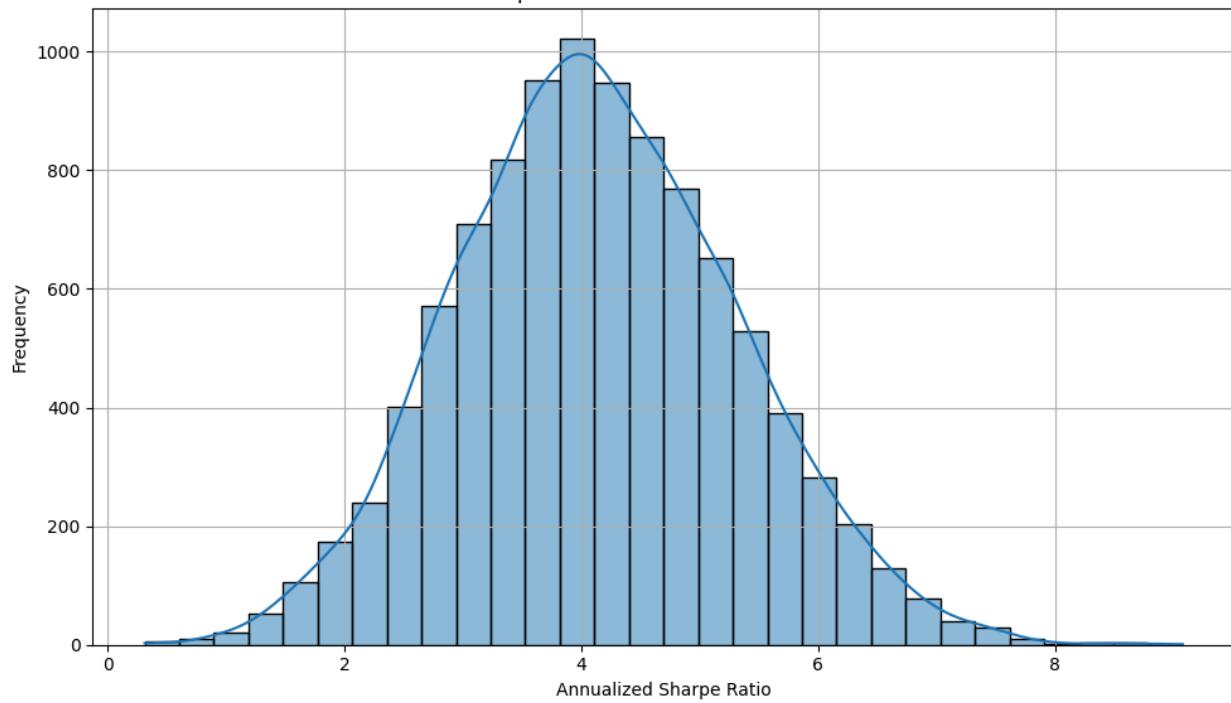
Longest Drawdown Distribution of Simulated PnL Paths



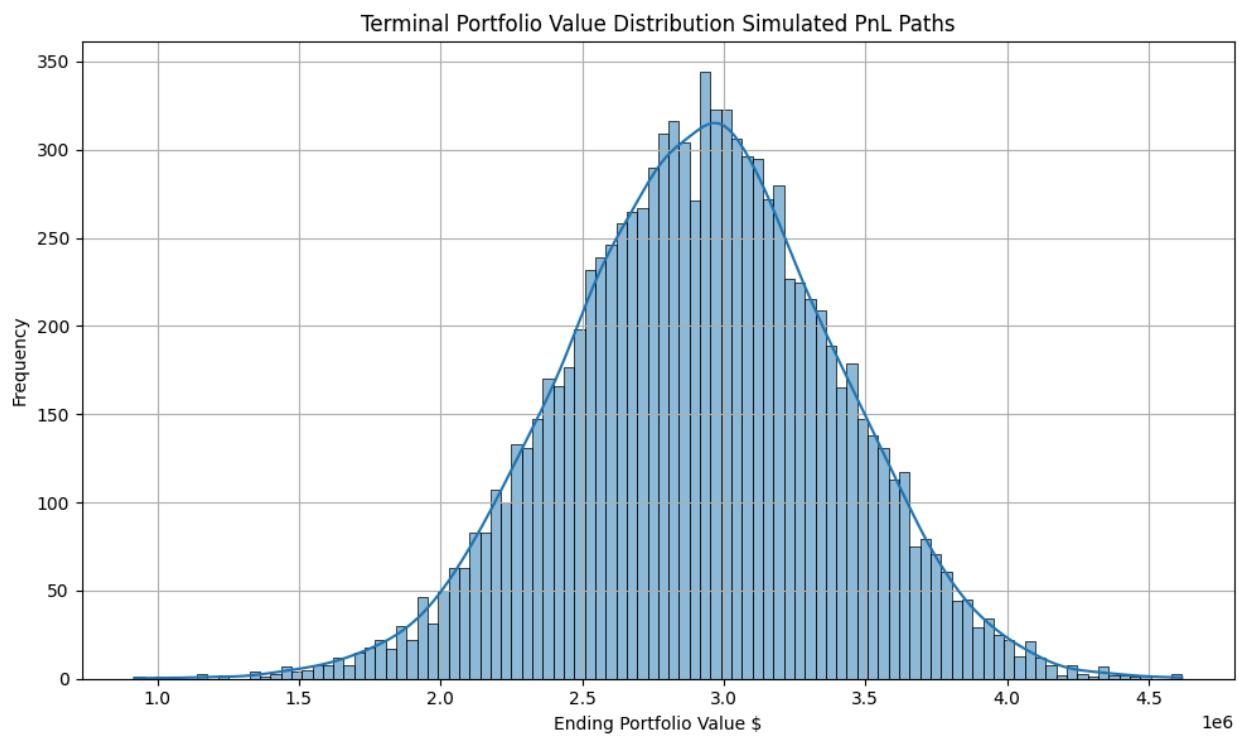
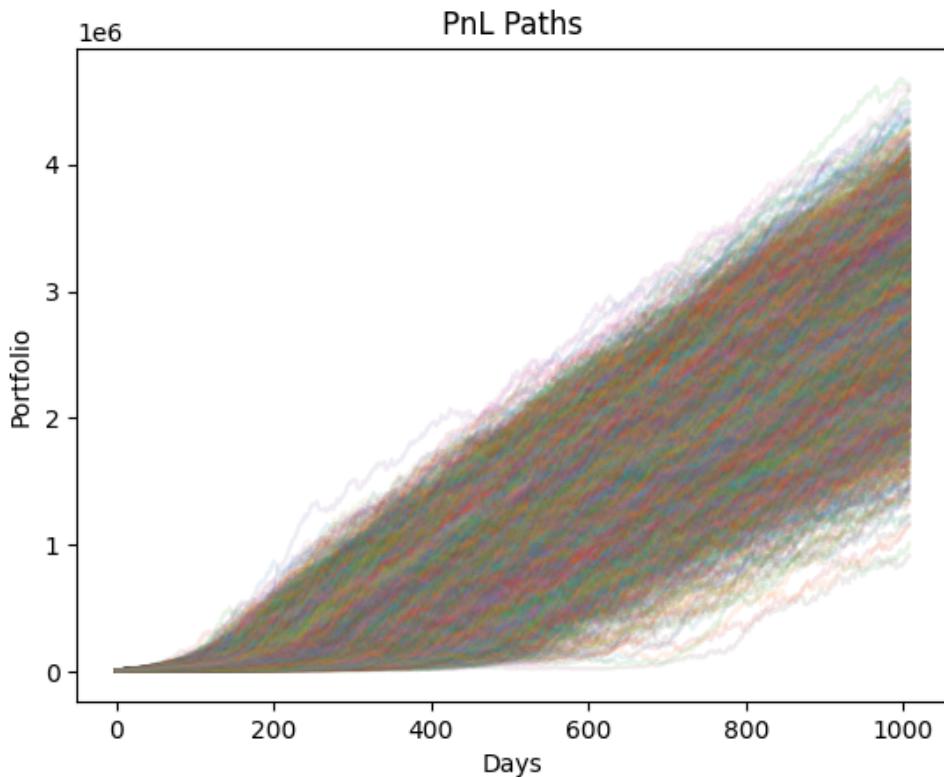
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

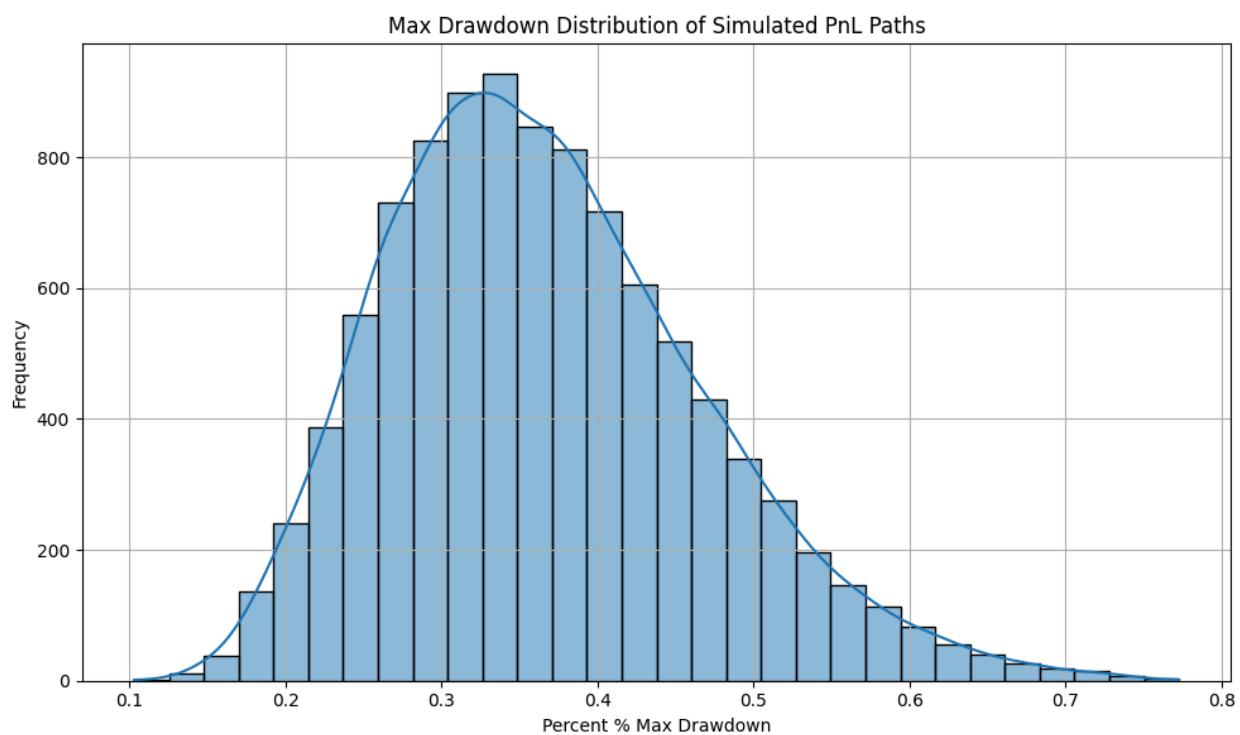


30% Kelly (4 Years)

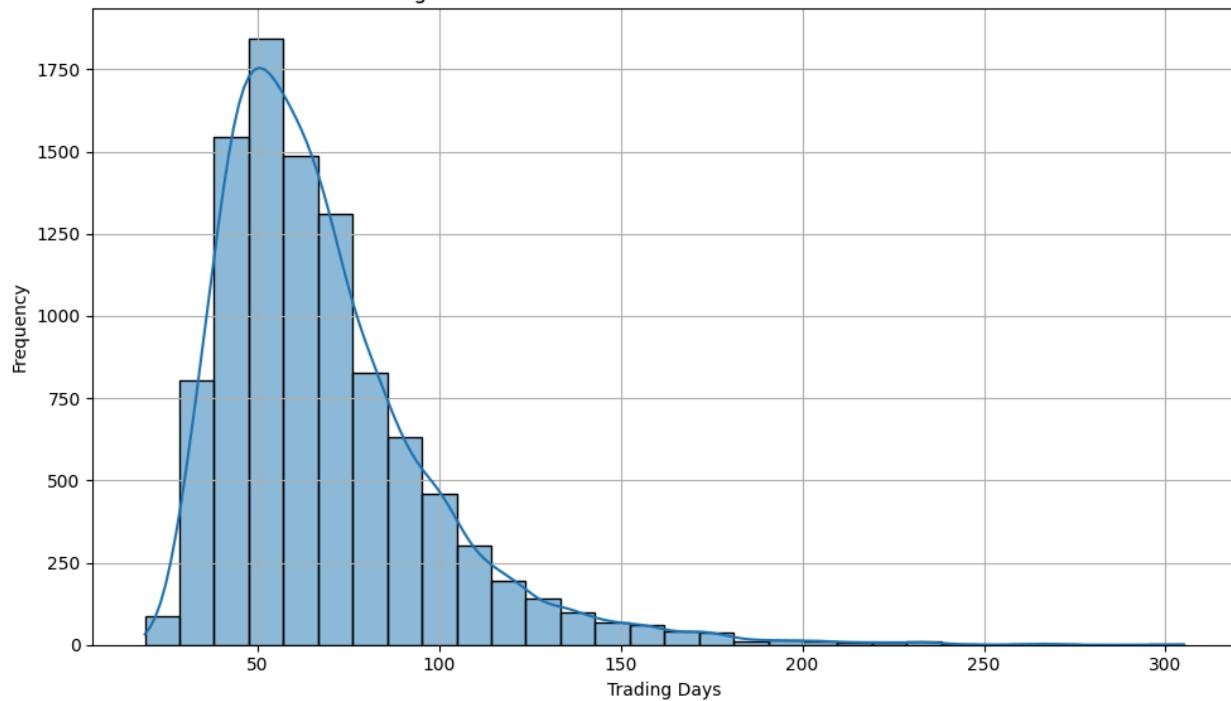


count	10,000.00
mean	2,914,522.41
std	476,353.99
min	918,294.34
25%	2,599,679.78
50%	2,923,982.73
75%	3,231,677.65
max	4,618,254.53

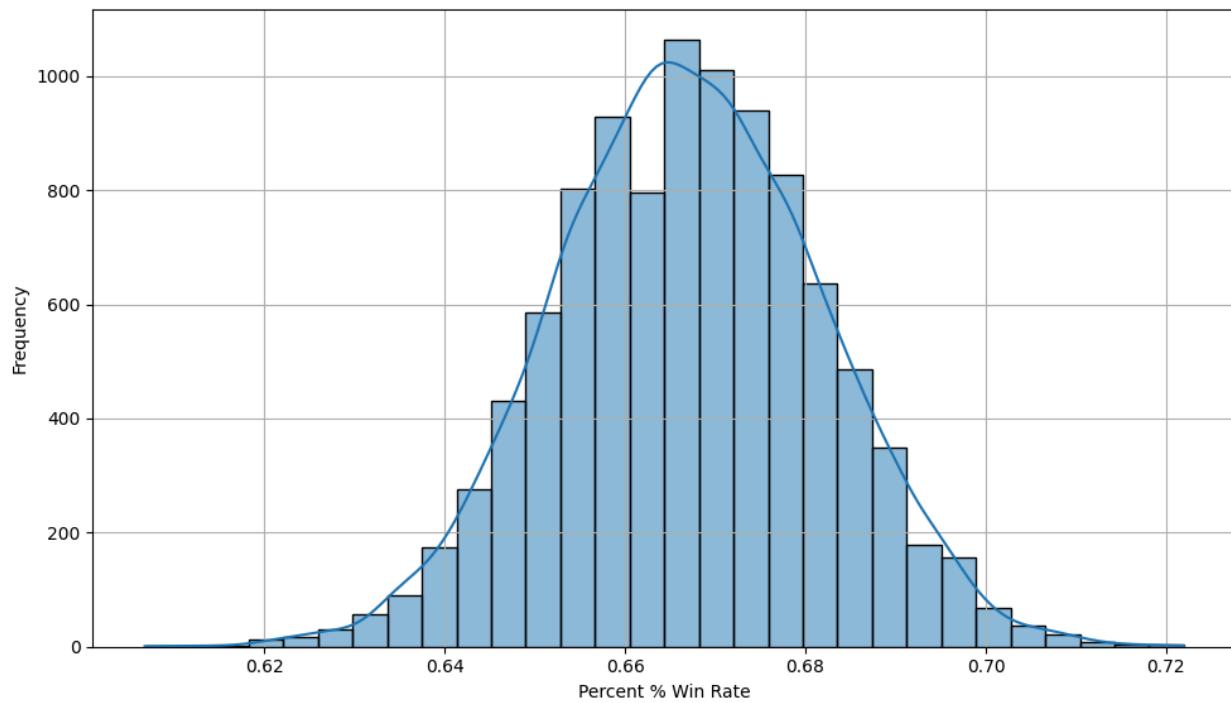
Terminal PnL Distribution Stats



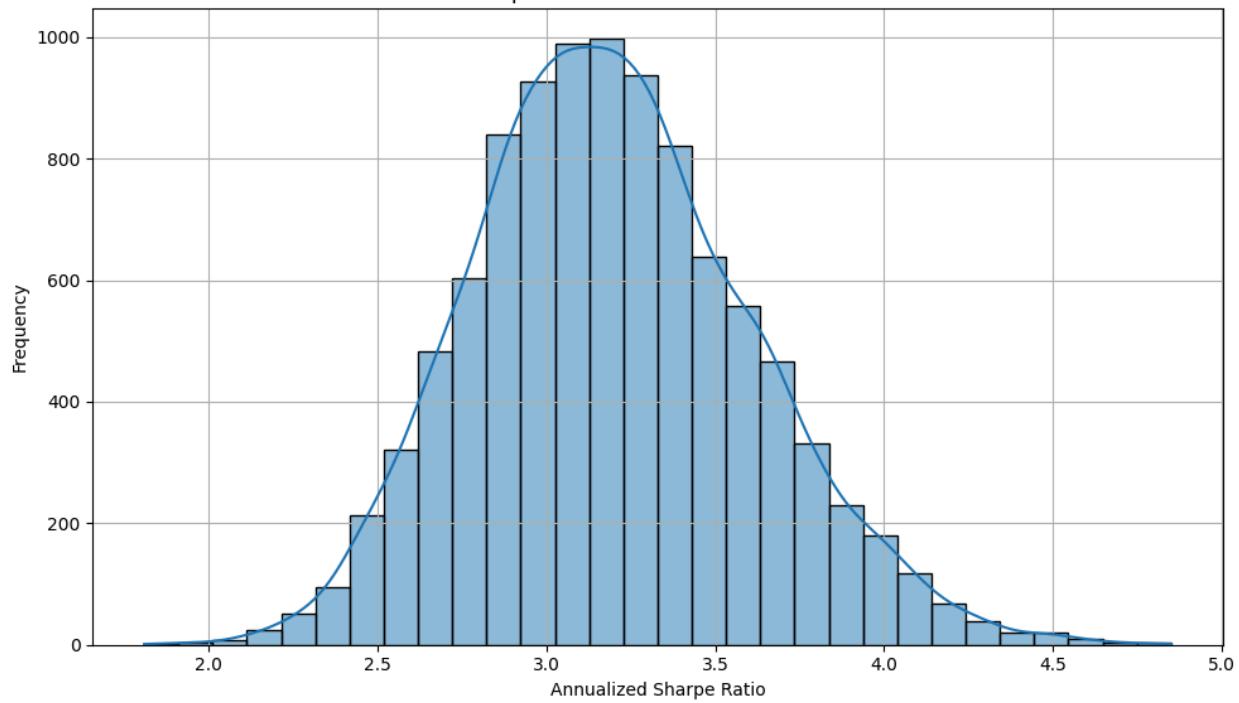
Longest Drawdown Distribution of Simulated PnL Paths



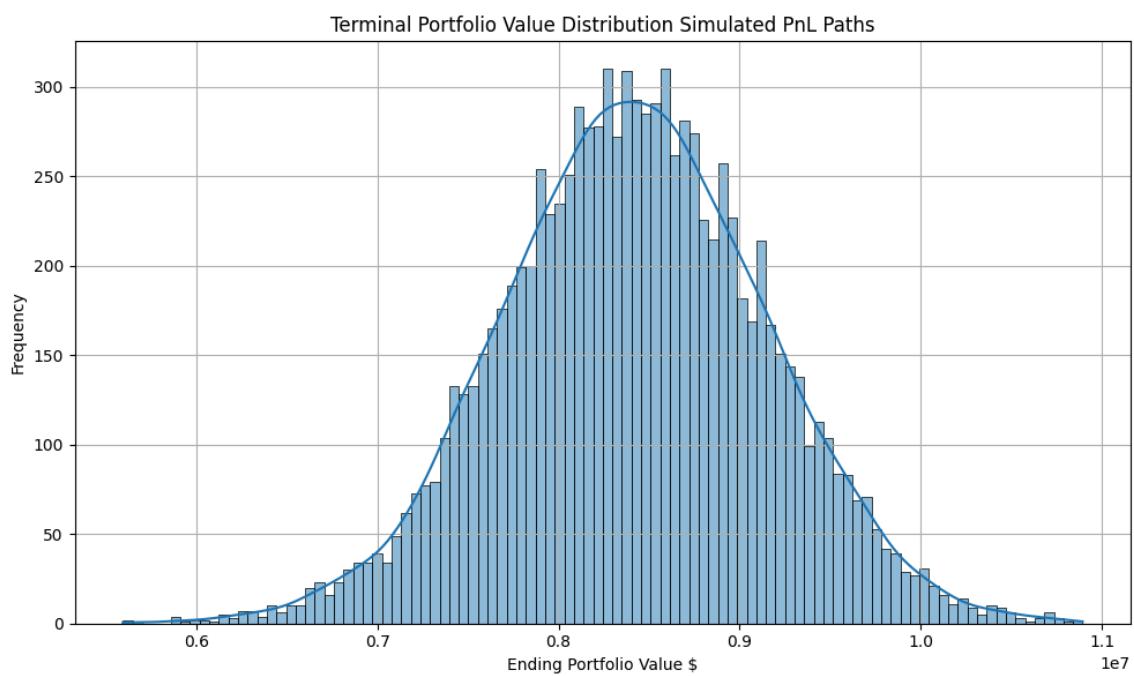
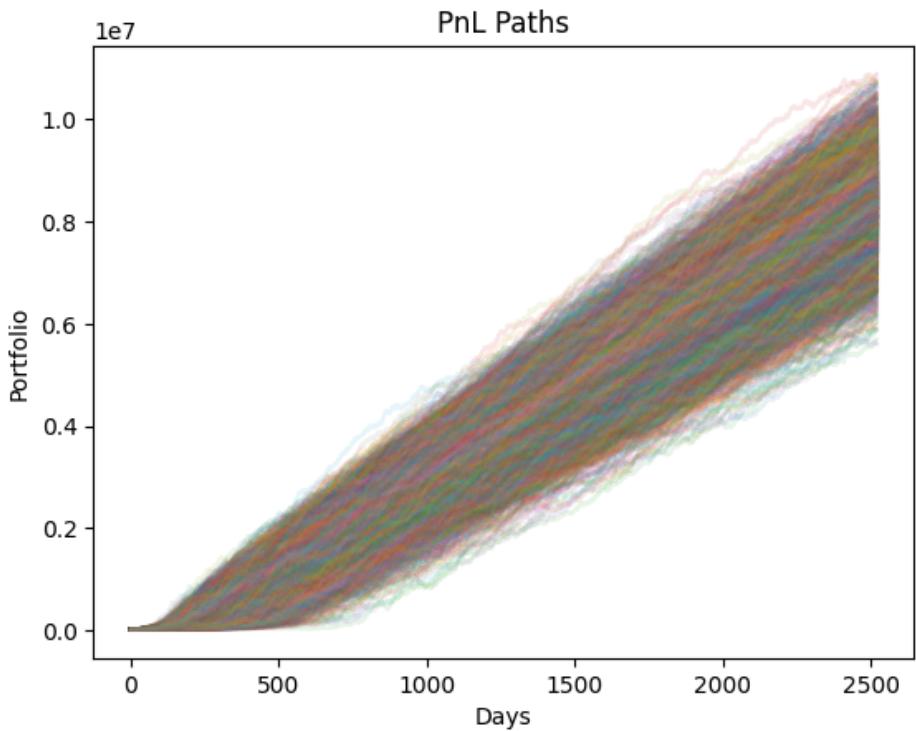
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths



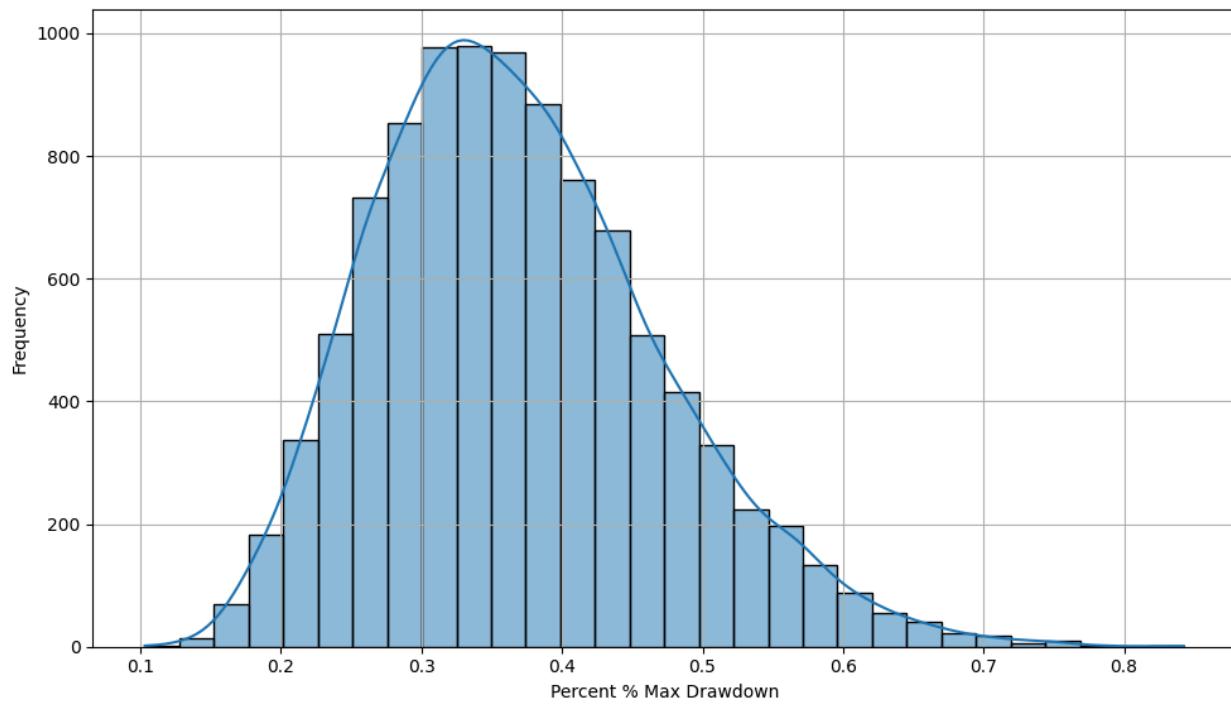
30% Kelly (10 Years)



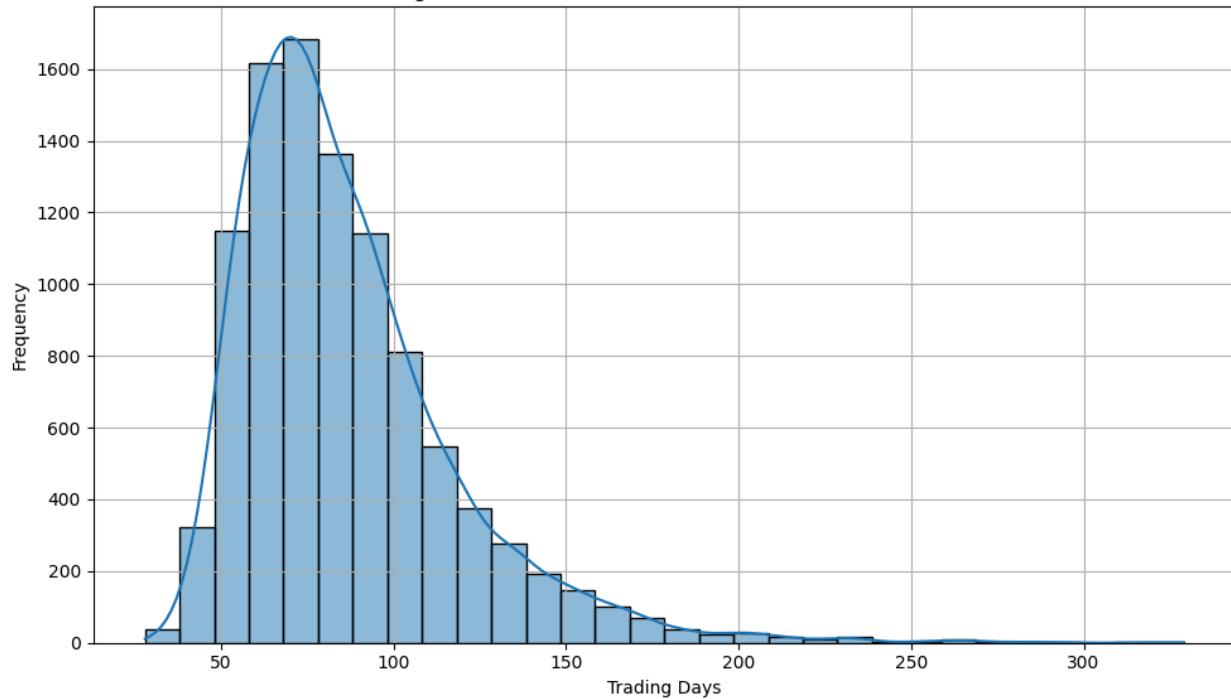
count	10,000.00
mean	8,413,328.81
std	726,898.64
min	5,595,722.74
25%	7,926,324.22
50%	8,412,445.32
75%	8,904,333.69
max	10,892,249.51

Terminal PnL Distribution Stats

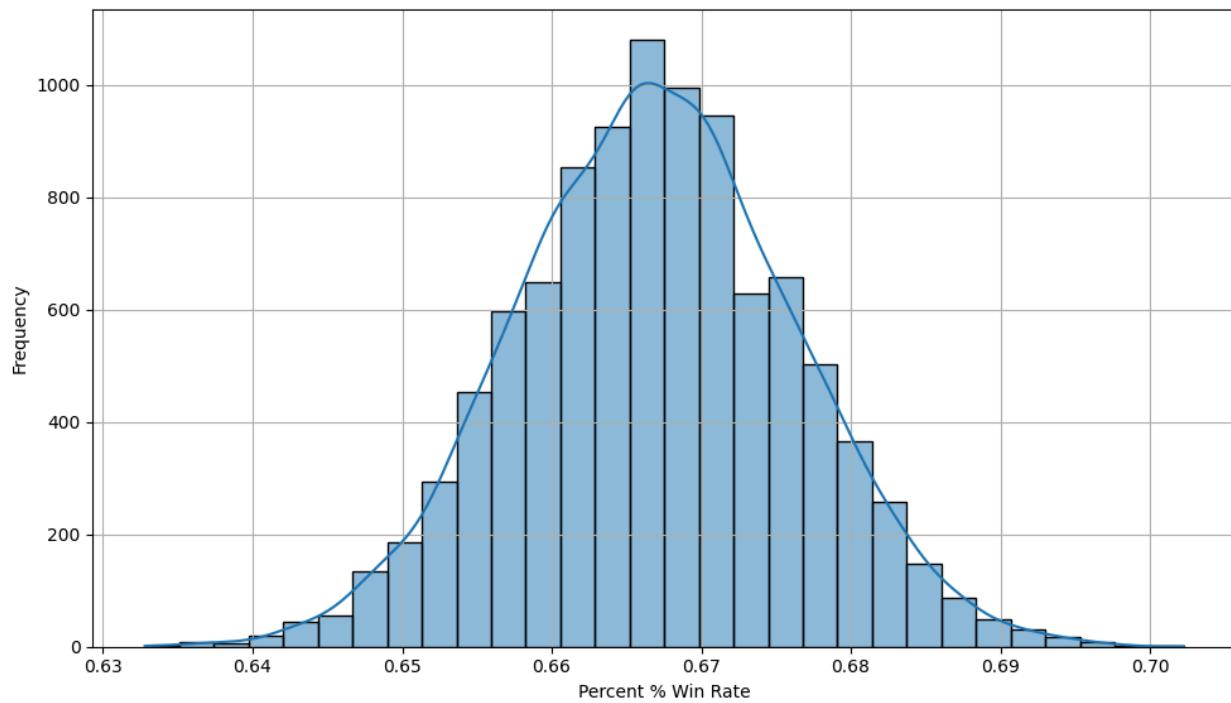
Max Drawdown Distribution of Simulated PnL Paths

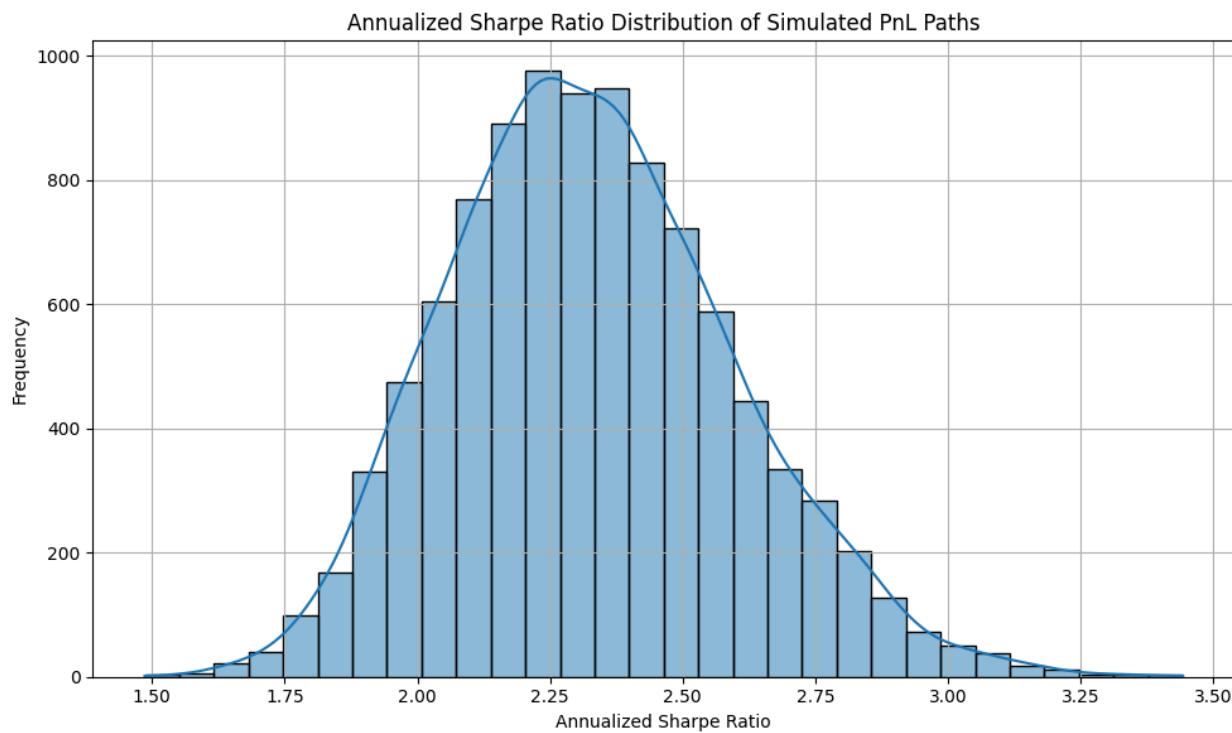


Longest Drawdown Distribution of Simulated PnL Paths

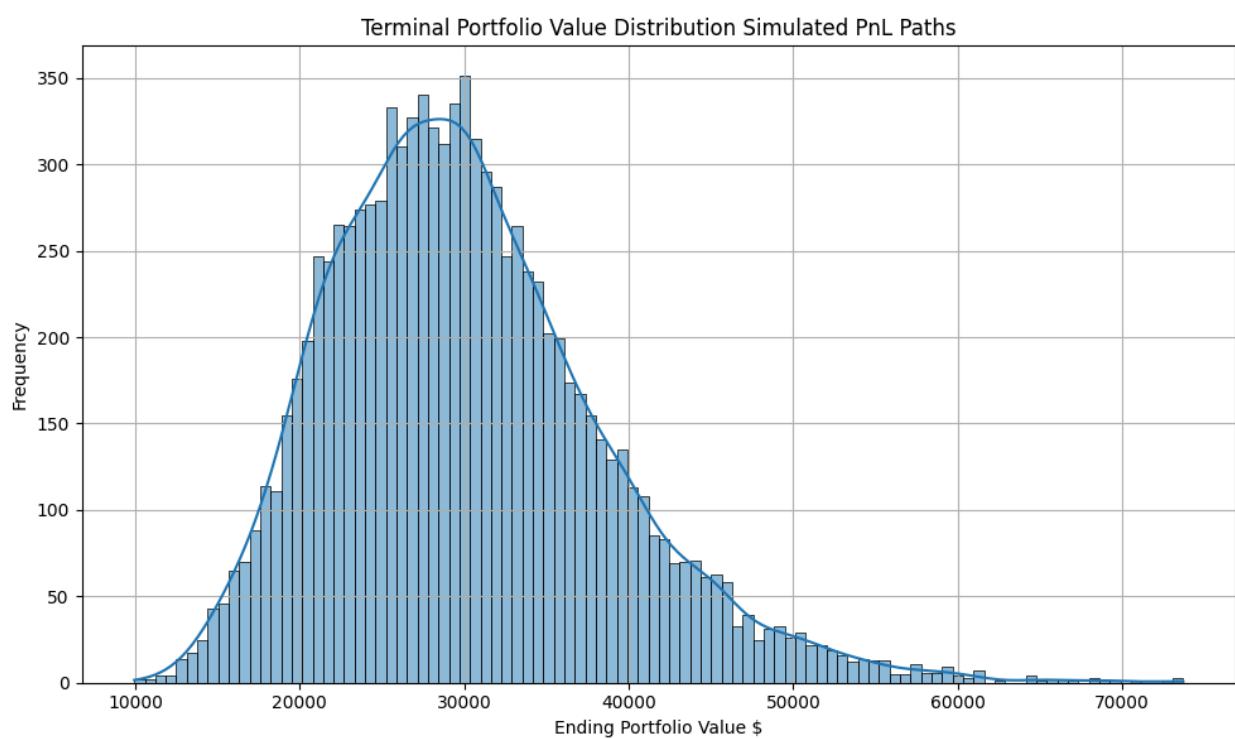
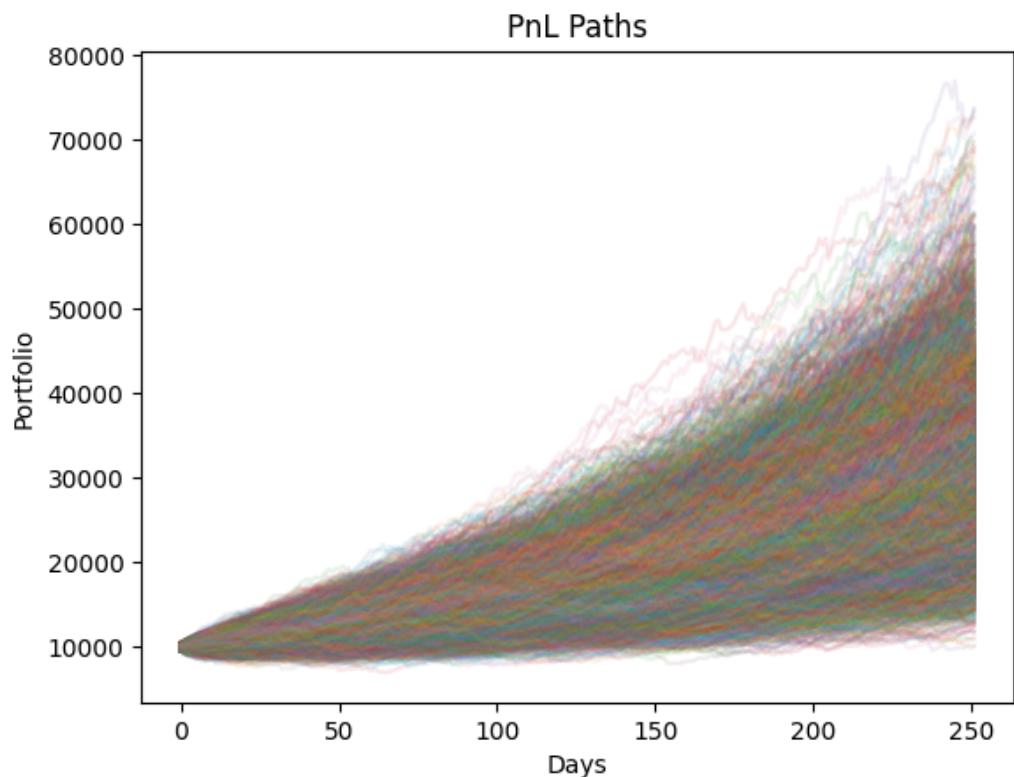


Win Rate Distribution of Simulated PnL Paths





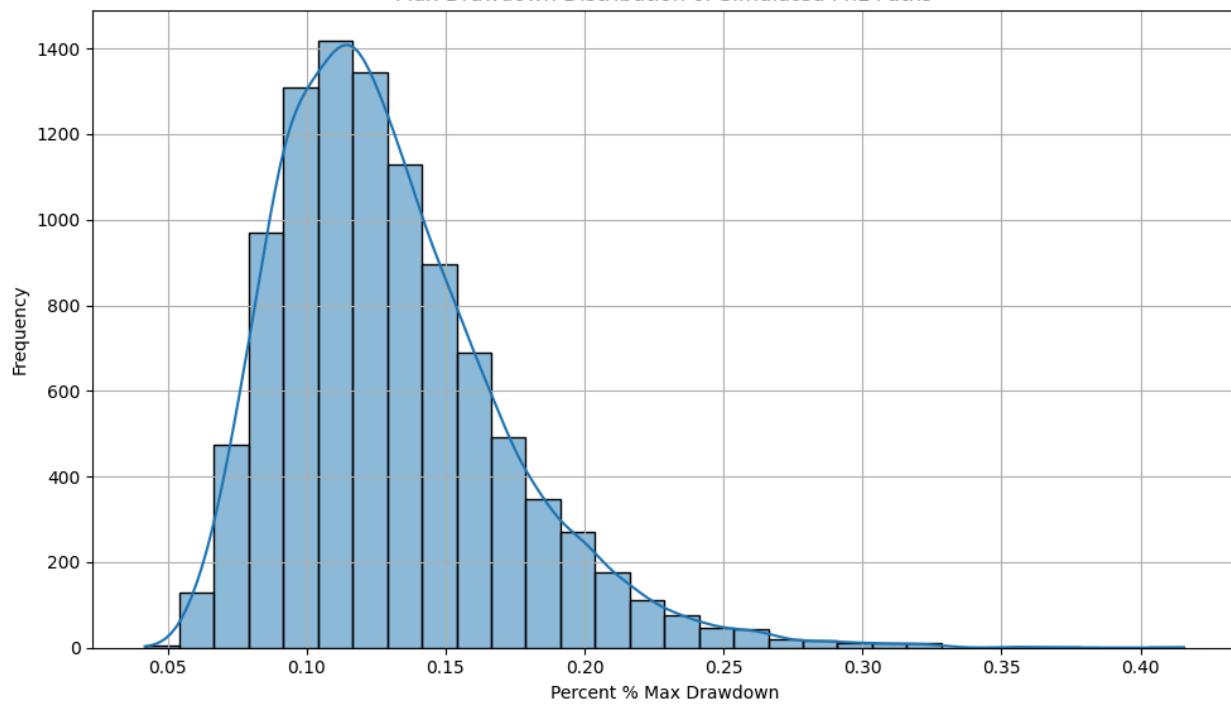
10% Kelly (1 Year)



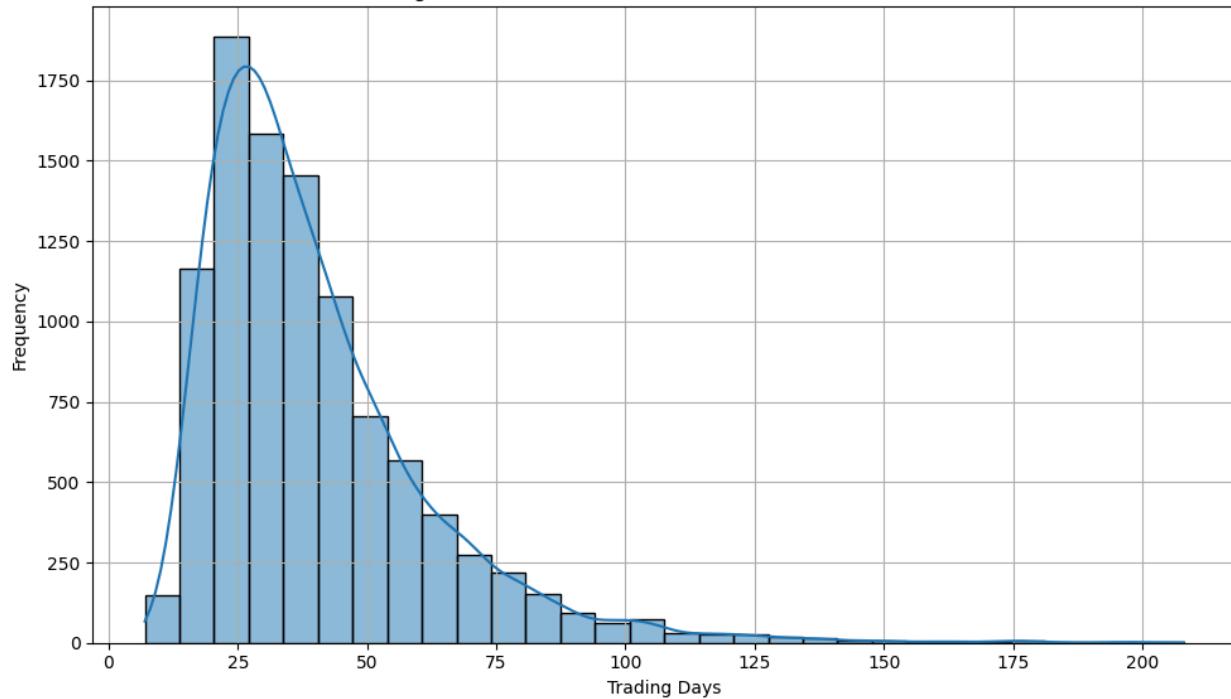
count	10,000.00
mean	30,125.84
std	8,403.80
min	9,949.24
25%	24,152.22
50%	29,186.36
75%	34,831.91
max	73,695.95

Terminal PnL Distribution Stats

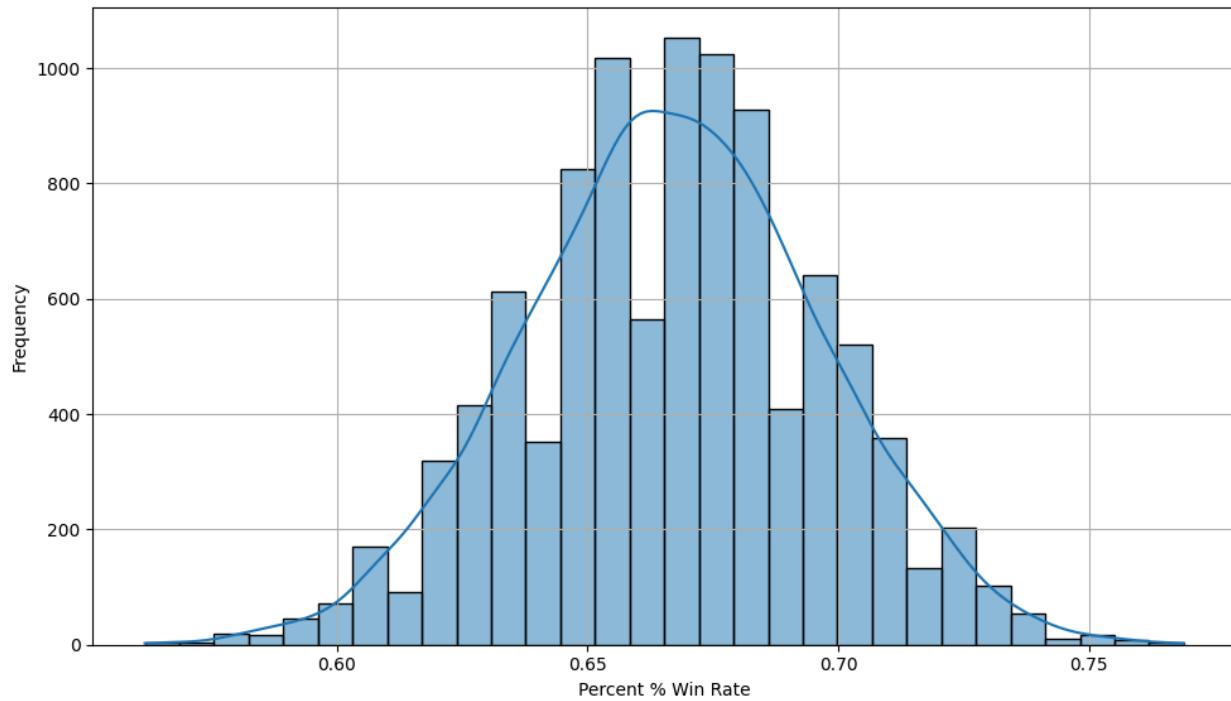
Max Drawdown Distribution of Simulated PnL Paths



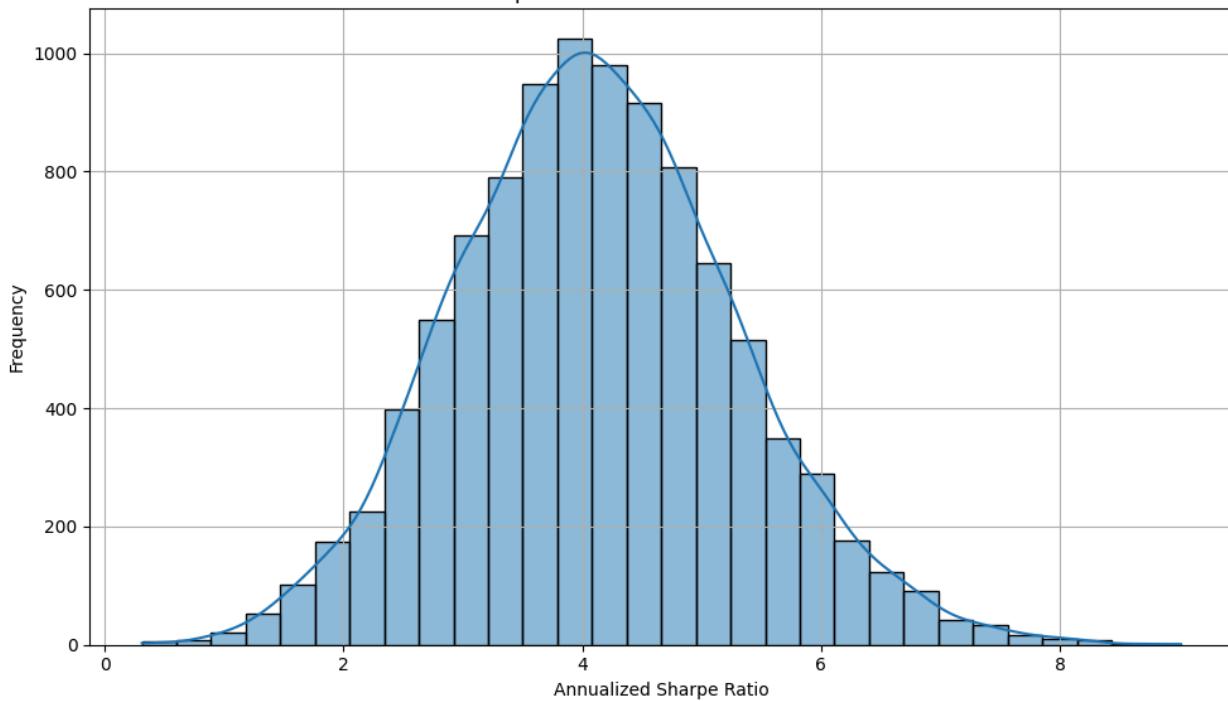
Longest Drawdown Distribution of Simulated PnL Paths



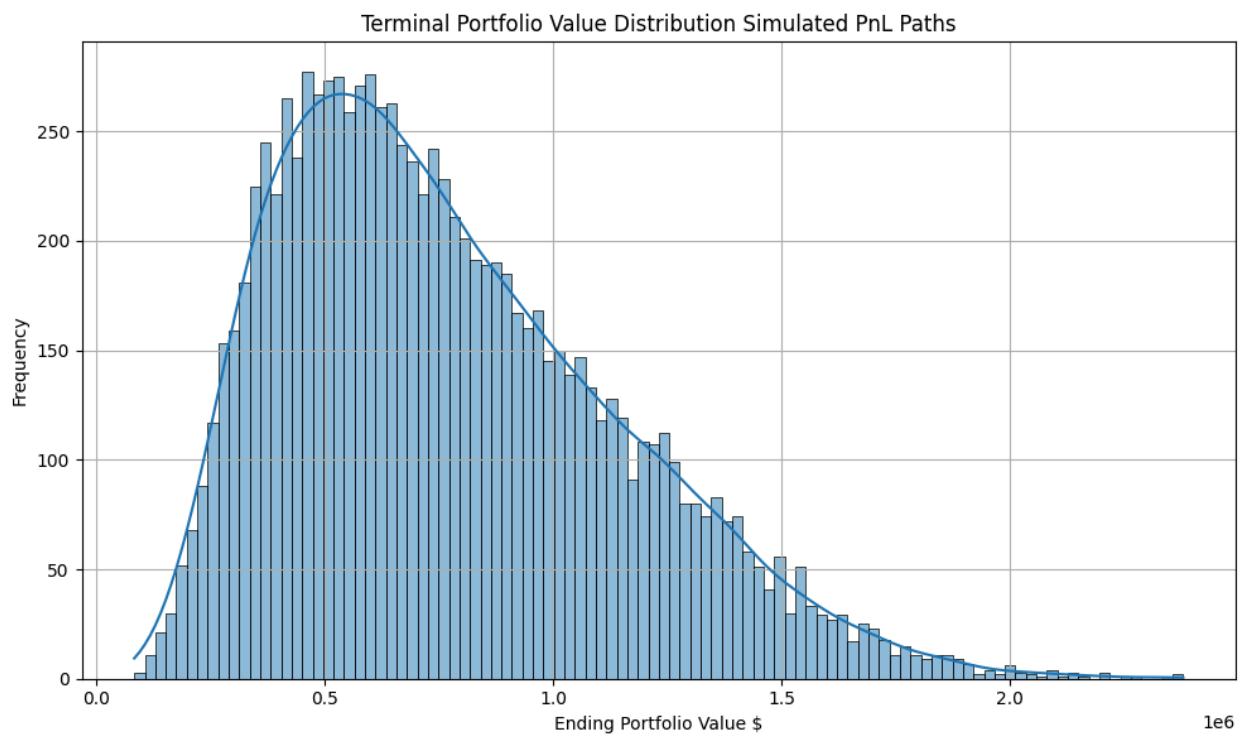
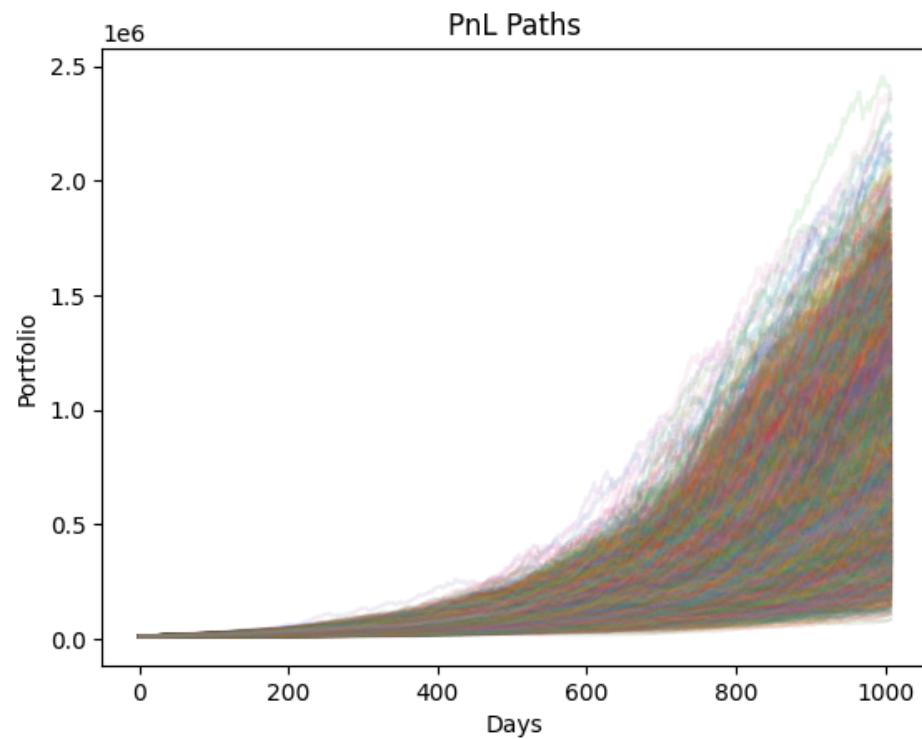
Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths



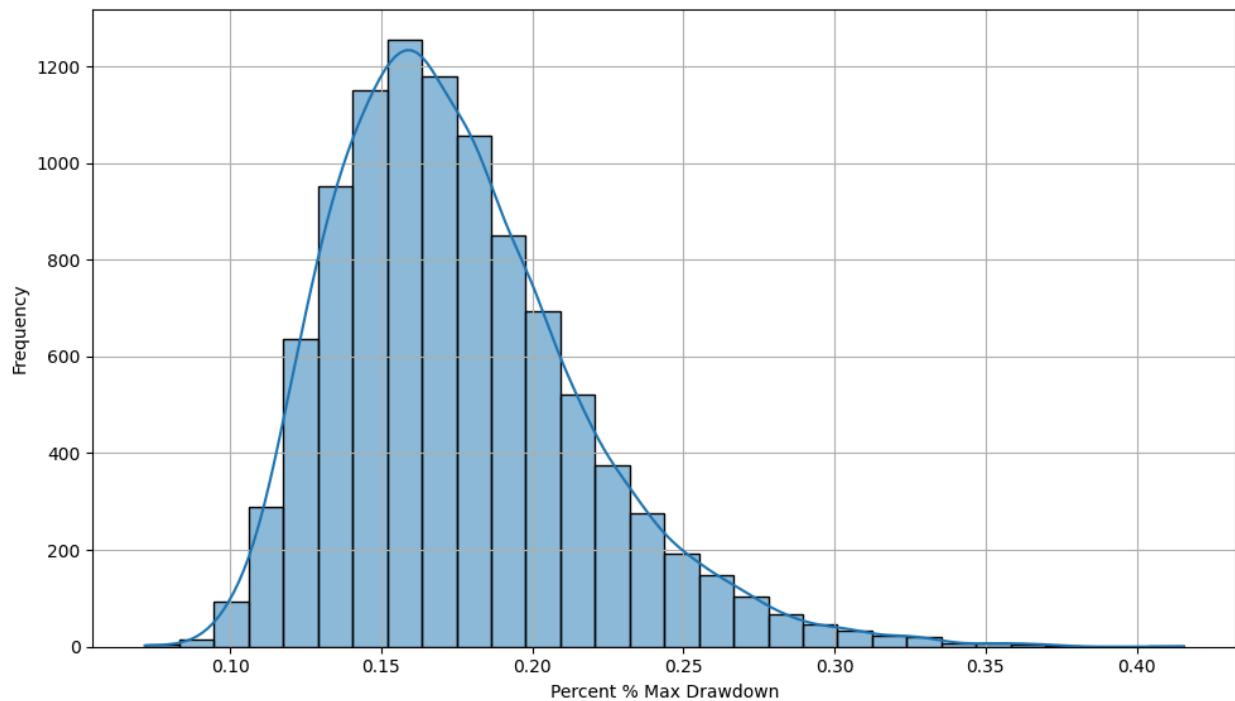
10% Kelly (4 Years)

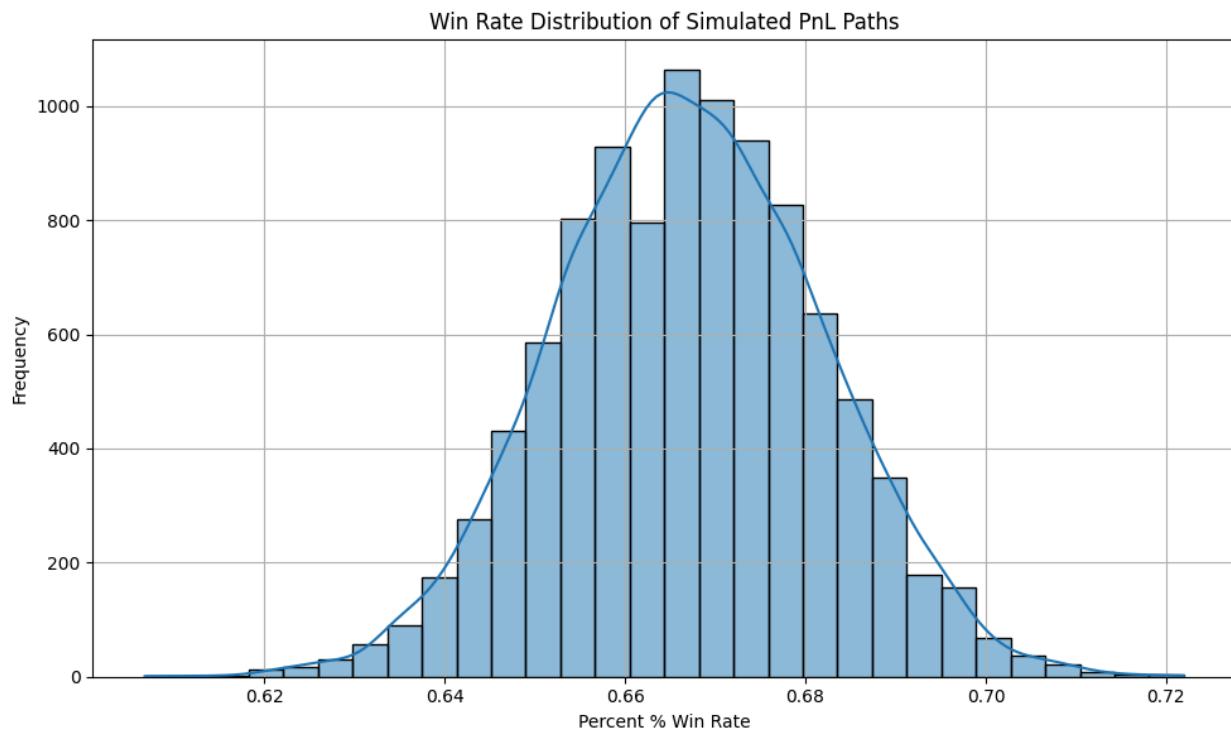
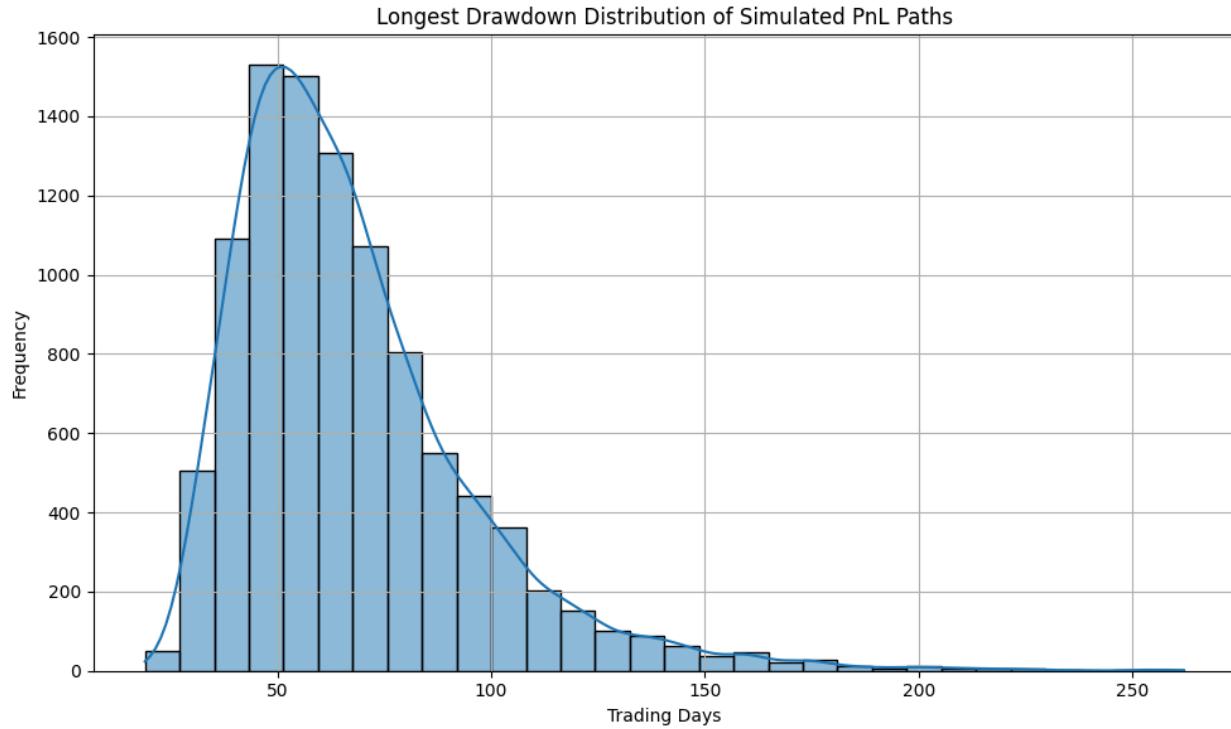


count	10,000.00
mean	771,913.23
std	368,506.65
min	84,125.80
25%	486,817.49
50%	705,800.62
75%	1,004,502.75
max	2,378,622.44

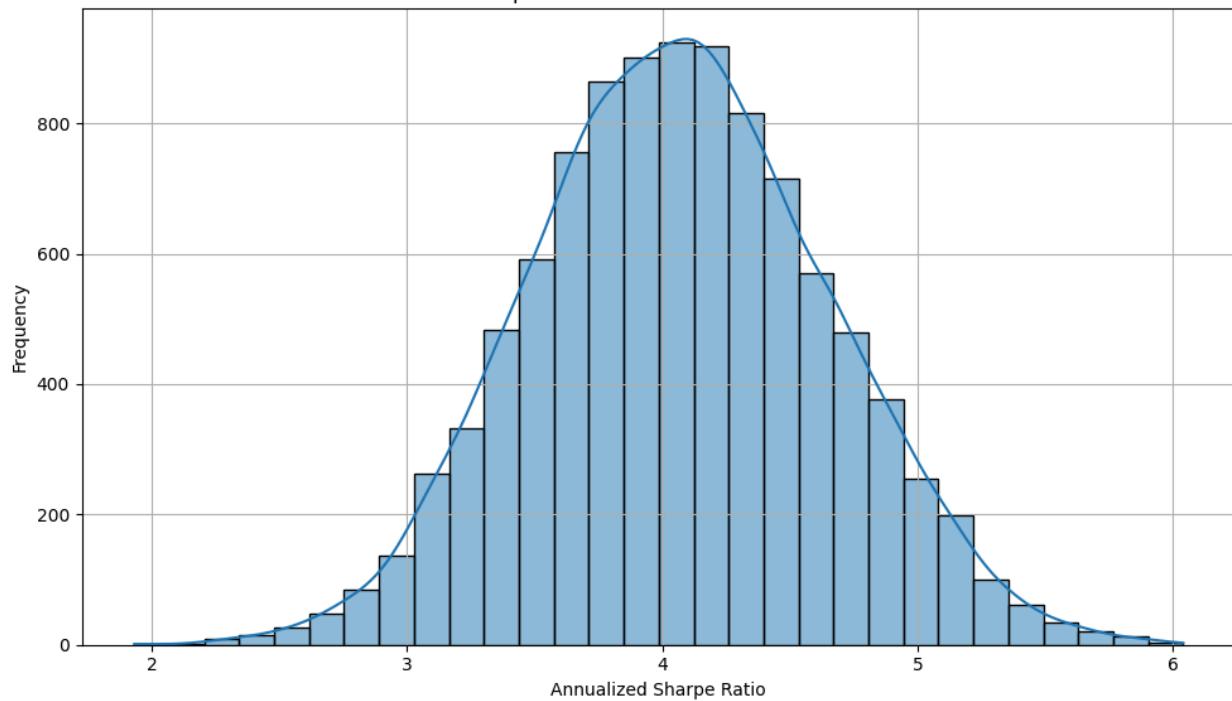
Terminal PnL Distribution Stats

Max Drawdown Distribution of Simulated PnL Paths

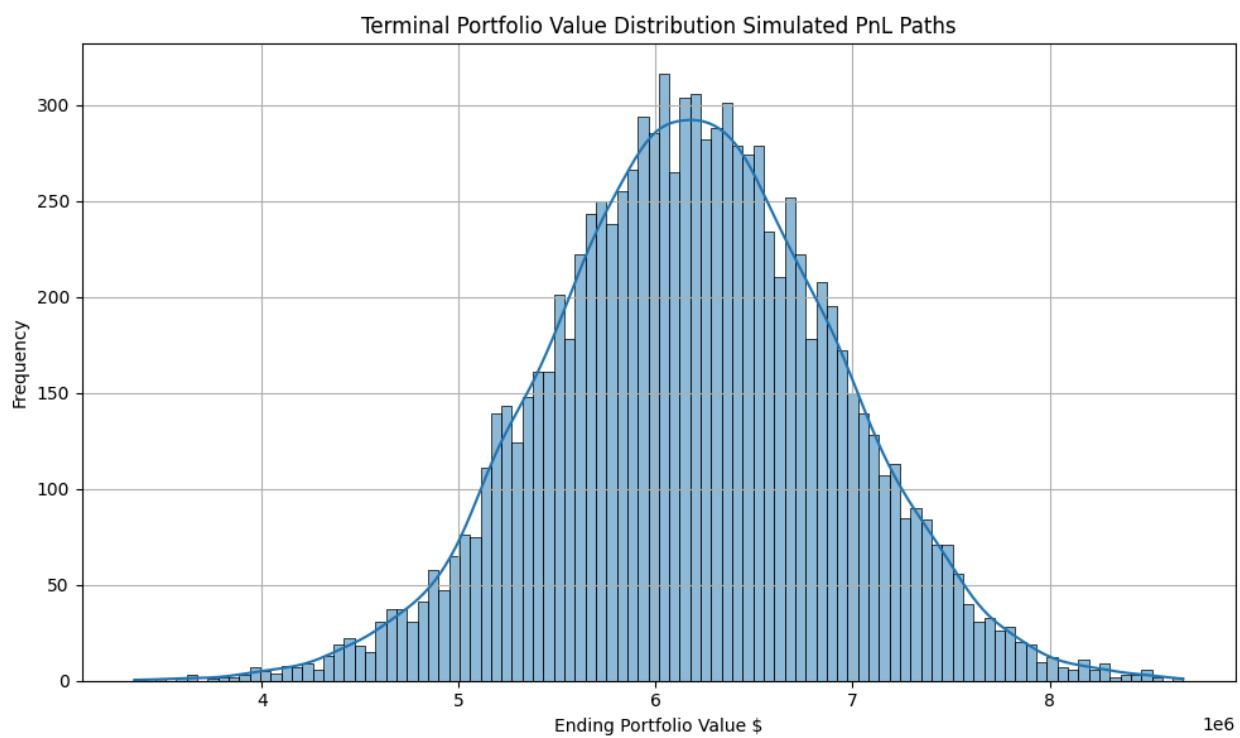
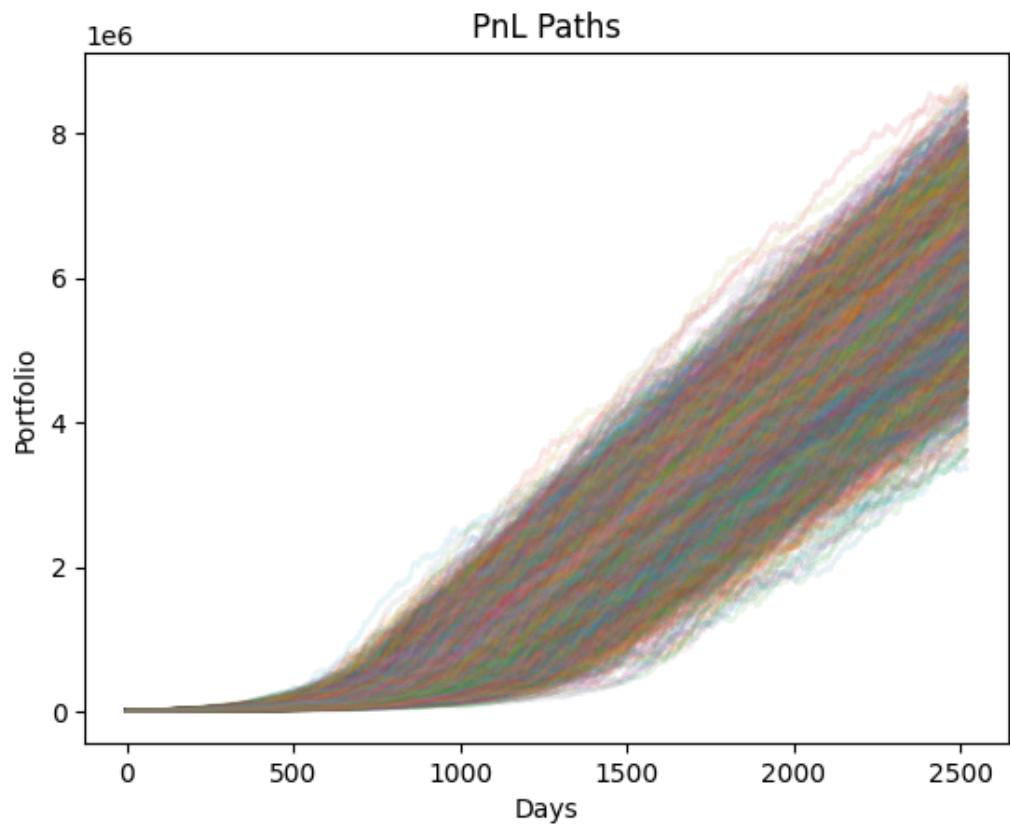




Annualized Sharpe Ratio Distribution of Simulated PnL Paths



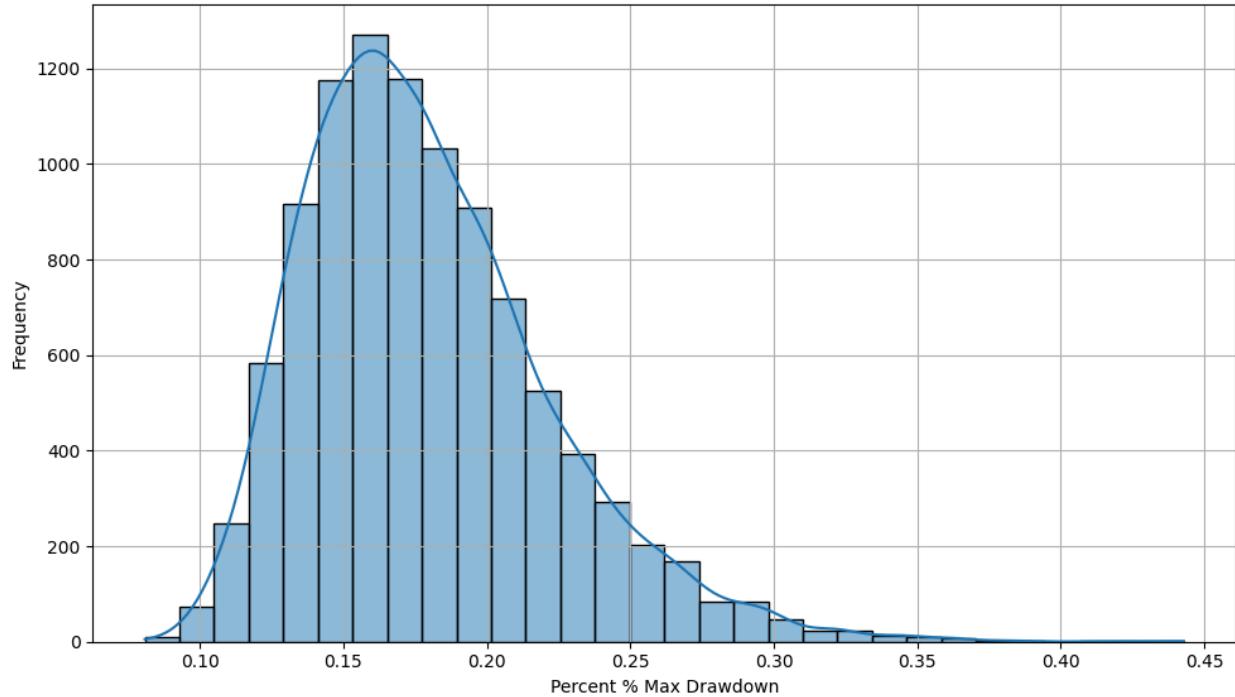
10% Kelly (10 Years)



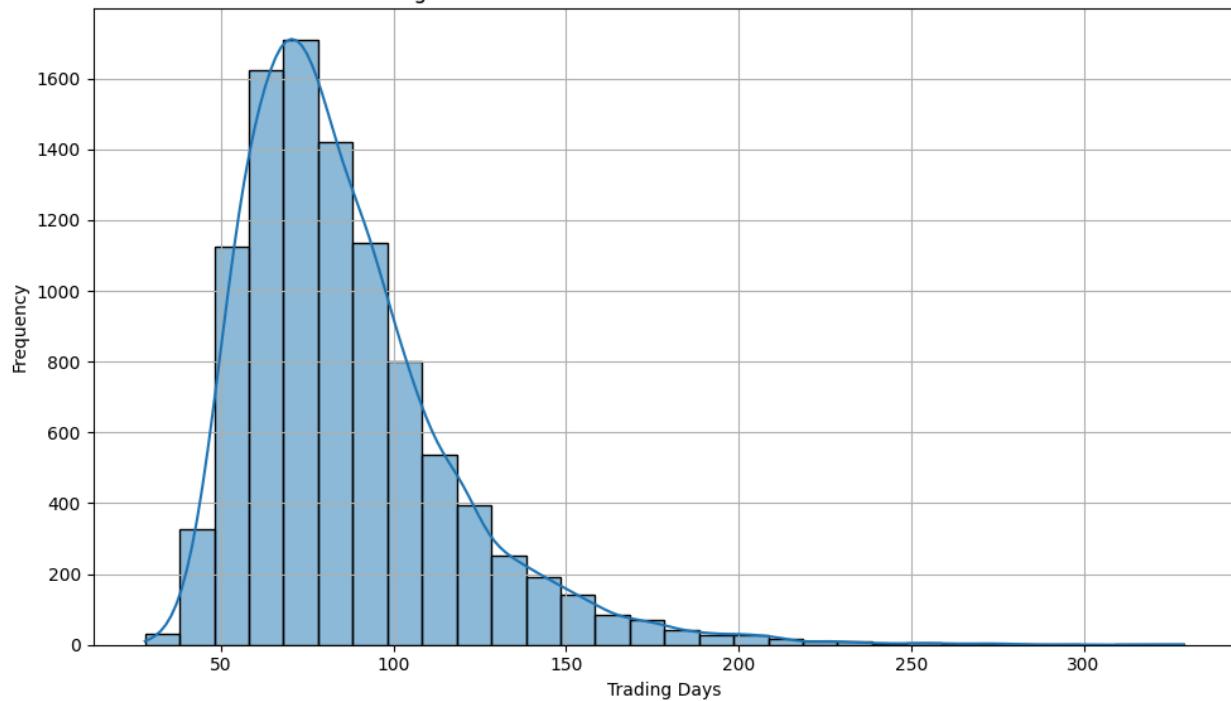
count	10,000.00
mean	6,185,119.72
std	726,647.62
min	3,352,922.71
25%	5,701,554.64
50%	6,184,604.87
75%	6,675,520.85
max	8,678,266.56

Terminal PnL Distribution Stats

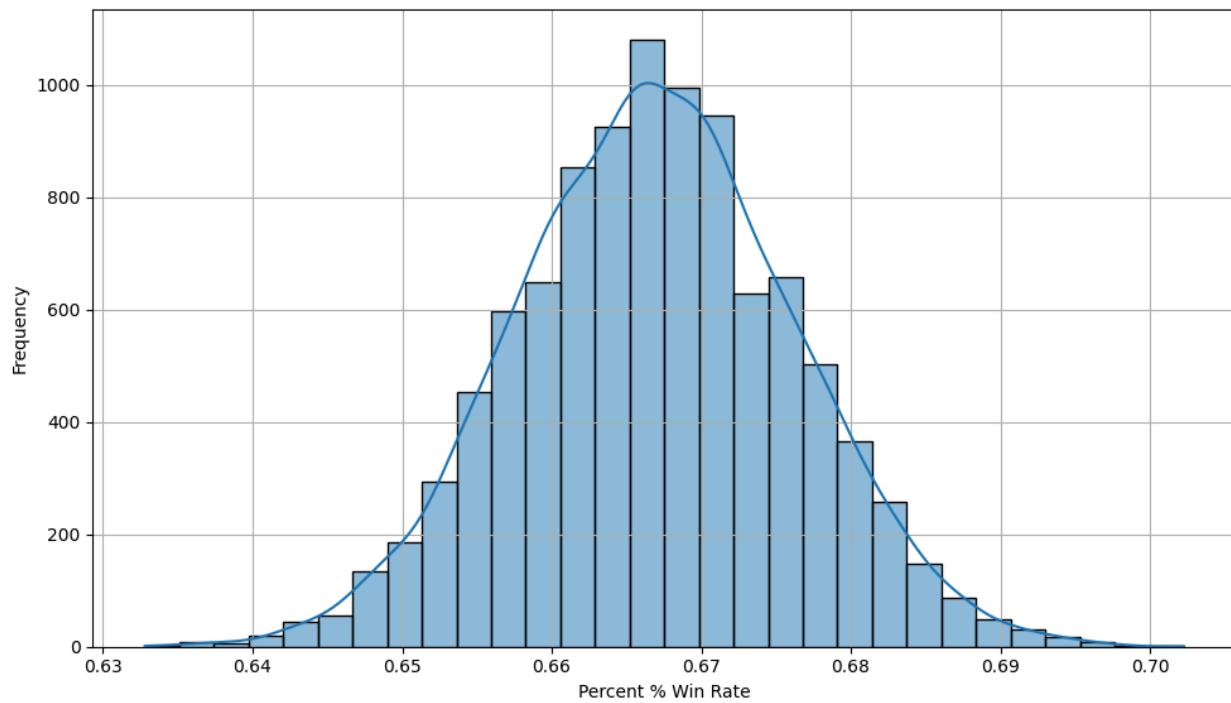
Max Drawdown Distribution of Simulated PnL Paths



Longest Drawdown Distribution of Simulated PnL Paths



Win Rate Distribution of Simulated PnL Paths



Annualized Sharpe Ratio Distribution of Simulated PnL Paths

