

daily_performance

December 24, 2023

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[ ]: import pandas as pd
import matplotlib.pyplot as plt
import yfinance as yf
import datetime as dt
import os

_today = dt.datetime.today().strftime('%Y-%m-%d')

# Get SP500 Tickers
sp500 = pd.read_csv('/Users/talhajamal/Desktop/Code/Daily_Market_Update/data/
↳sp500.csv')
sp500_tickers = ','.join(sp500['Symbol']).replace(',', ' ')

# 1 Year Data
data = yf.download(sp500_tickers, period='2y')
```

[*****100%*****] 503 of 503 completed

2 Failed downloads:

```
['BRK.B']: Exception('%ticker%: No data found, symbol may be delisted')
['BF.B']: Exception('%ticker%: No price data found, symbol may be delisted
(period=2y)')
```

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[ ]: # Performance Metrics
performance_metrics = {
    '1d': data['Adj Close'].pct_change(fill_method=None).tail(1) * 100,
    '1w': data['Adj Close'].pct_change(fill_method=None, periods=5).tail(1) *
↳100,
    '1m': data['Adj Close'].pct_change(fill_method=None, periods=21).tail(1) *
↳100,
    '1y': data['Adj Close'].pct_change(fill_method=None, periods=252).tail(1) *
↳100
}

# Find top 10 performing stocks for each period
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top_performers = {period: metric.iloc[0].nlargest(10) for period, metric in
    ↪performance_metrics.items()}

# Find worst 10 performing stocks for each period
worst_performers = {period: metric.iloc[0].nsmallest(10) for period, metric in
    ↪performance_metrics.items()}

# df for each best period
best_one_day_performance = top_performers['1d']
best_one_week_performance = top_performers['1w']
best_one_month_performance = top_performers['1m']
best_one_year_performance = top_performers['1y']

# df for each worst period
worst_one_day_performance = worst_performers['1d']
worst_one_week_performance = worst_performers['1w']
worst_one_month_performance = worst_performers['1m']
worst_one_year_performance = worst_performers['1y']

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[ ]: # Best 1D Performance
best_one_day = best_one_day_performance.reset_index()
best_one_day.columns = ['Ticker', '1D Return']
print(best_one_day)

# Plot of best performing stocks over 1 Day
plt.figure(figsize=(8,4))
for ticker, ret in best_one_day_performance.items():
    #Calculate Daily Return for last month
    plt.plot(data['Adj Close'][ticker].pct_change().tail(22) * 100,
    ↪label=ticker)
plt.title('Last 1M Daily Returns for Best Performing Stocks as of '+_today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Daily Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()

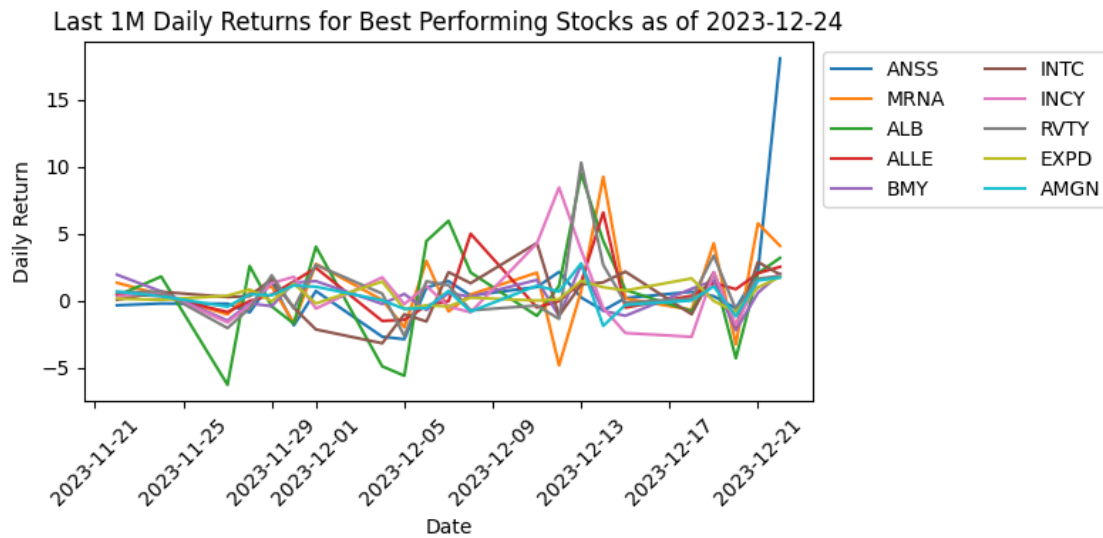
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	Ticker	1D Return
0	ANSS	18.082863
1	MRNA	4.091702
2	ALB	3.190099
3	ALLE	2.528250
4	BMJ	2.009369
5	INTC	1.954117
6	INCY	1.880369
7	RVTY	1.843794

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8  EXPD    1.768379
9  AMGN    1.729144

```



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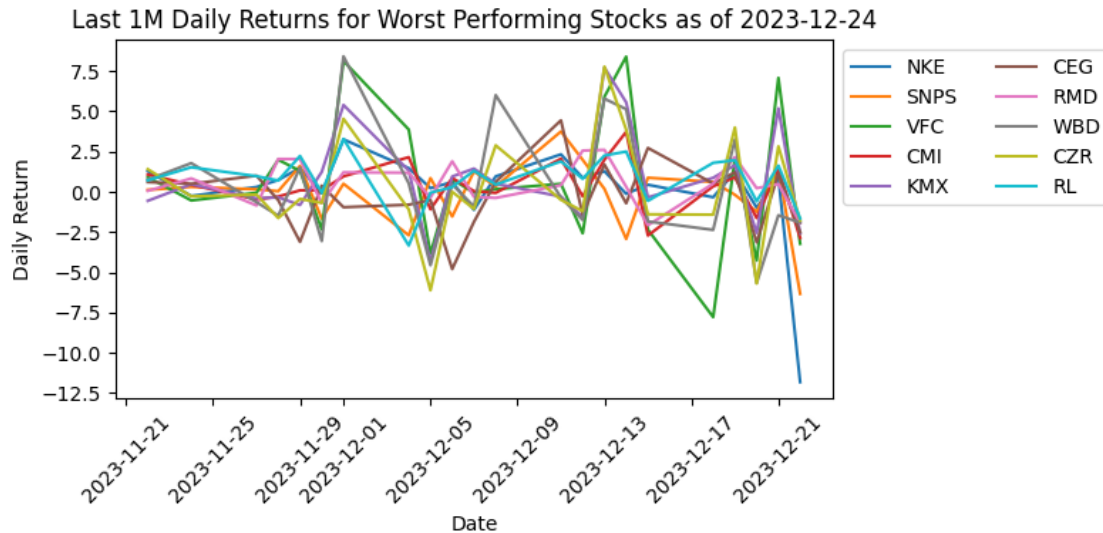
[ ]: # Worst 1D Performance
worst_one_day = worst_one_day_performance.reset_index()
worst_one_day.columns = ['Ticker', '1D Return']
print(worst_one_day)

# Plot of best performing stocks over 1 Day
plt.figure(figsize=(8,4))
for ticker, ret in worst_one_day_performance.items():
    #Calculate Daily Return for last month
    plt.plot(data['Adj Close'][ticker].pct_change().tail(22) * 100,
             label=ticker)
plt.title('Last 1M Daily Returns for Worst Performing Stocks as of '+_today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Daily Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()

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	Ticker	1D Return
0	NKE	-11.825674
1	SNPS	-6.339738
2	VFC	-3.227480
3	CMI	-2.872949
4	KMX	-2.584349
5	CEG	-2.518803

6	RMD	-1.950691
7	WBD	-1.914703
8	CZR	-1.783089
9	RL	-1.656299

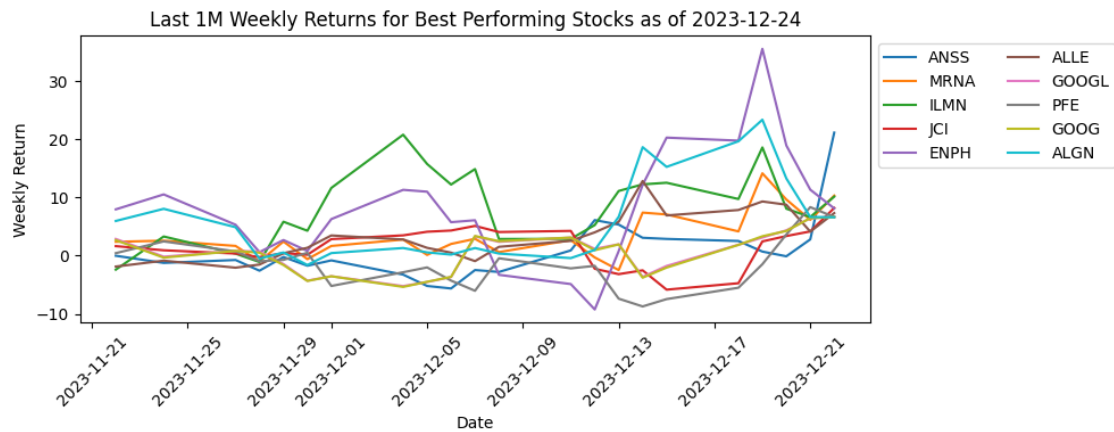


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[ ]: # Best 1W Performance
best_one_week = best_one_week_performance.reset_index()
best_one_week.columns = ['Ticker', '1W Return']
print(best_one_week)

# Plot of best performing stocks over 1 Week
plt.figure(figsize=(10,4))
for ticker, ret in best_one_week_performance.items():
    plt.plot(data['Adj Close'][ticker].pct_change(periods=5).tail(22) * 100,
             label=ticker)
plt.title('Last 1M Weekly Returns for Best Performing Stocks as of ' + _today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Weekly Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()
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	Ticker	1W Return
0	ANSS	21.156127
1	MRNA	10.324377
2	ILMN	10.149490
3	JCI	8.199853
4	ENPH	8.126216

5	ALLE	7.317909
6	GOOGL	6.704373
7	PFE	6.646641
8	GOOG	6.634792
9	ALGN	6.611506



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[ ]: # Worst 1W Performance
worst_one_week = worst_one_week_performance.reset_index()
worst_one_week.columns = ['Ticker', '1W Return']
print(worst_one_week)

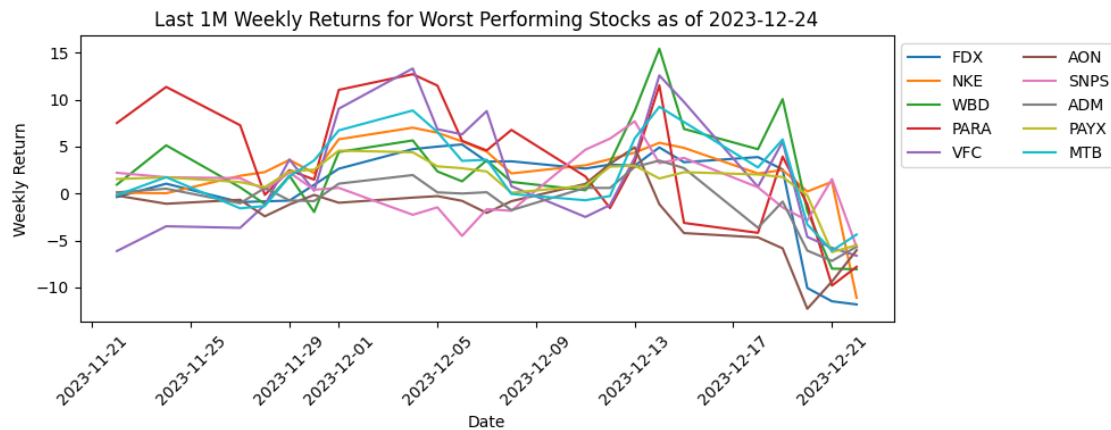
# Plot of best performing stocks over 1 Week
plt.figure(figsize=(10,4))
for ticker, ret in worst_one_week_performance.items():
    plt.plot(data['Adj Close'][ticker].pct_change(periods=5).tail(22) * 100,
             label=ticker)
plt.title('Last 1M Weekly Returns for Worst Performing Stocks as of ' + _today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Weekly Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()
```

	Ticker	1W Return
0	FDX	-11.824099
1	NKE	-11.114769
2	WBD	-8.075039
3	PARA	-7.805780
4	VFC	-6.629833
5	AON	-6.043224
6	SNPS	-5.718445

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7    ADM  -5.663368
8    PAYX -5.502993
9    MTB  -4.370966

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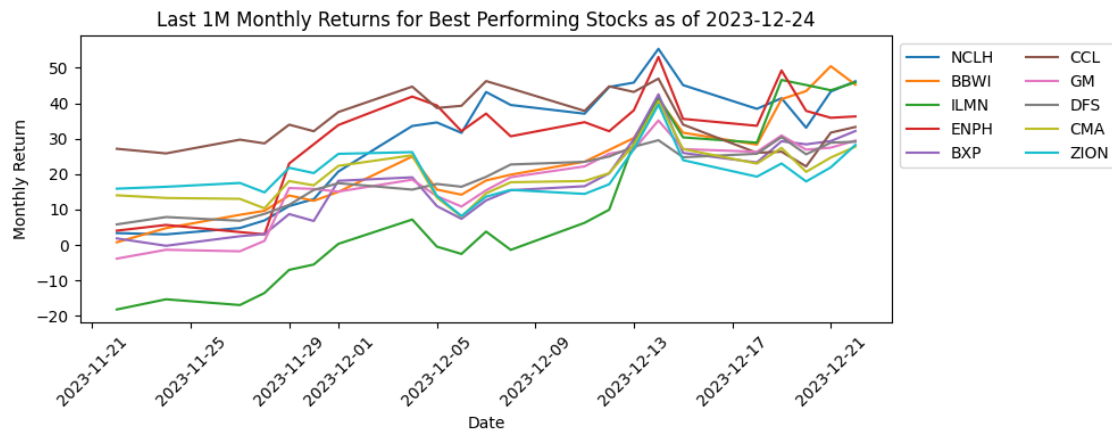
[ ]: # Best 1M Performance
best_one_month = best_one_month_performance.reset_index()
best_one_month.columns = ['Ticker', '1M Return']
print(best_one_month)

# Plot of best performing stocks over 1 Month
plt.figure(figsize=(10,4))
for ticker, ret in best_one_month_performance.items():
    plt.plot(data['Adj Close'][ticker].pct_change(periods=22).tail(22) * 100,
             label=ticker)
plt.title('Last 1M Monthly Returns for Best Performing Stocks as of '+_today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Monthly Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()

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	Ticker	1M Return
0	NCLH	45.587215
1	BBWI	45.525158
2	ILMN	43.207853
3	ENPH	33.722564
4	BXP	31.289373
5	CCL	30.822391
6	GM	28.551175
7	DFS	28.356651
8	CMA	28.141767

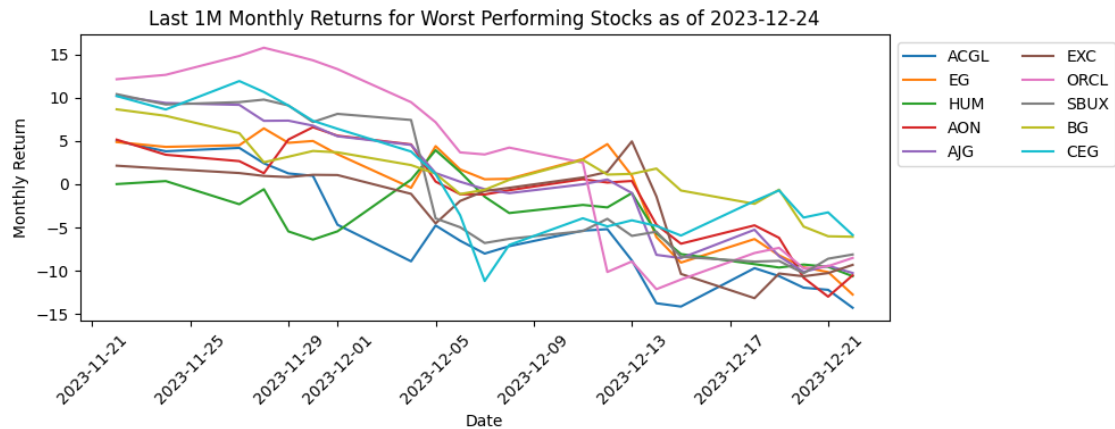
9 ZION 27.869806



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[ ]: # Worst 1M Performance
worst_one_month = worst_one_month_performance.reset_index()
worst_one_month.columns = ['Ticker', '1M Return']
print(worst_one_month)

# Plot of best performing stocks over 1 Month
plt.figure(figsize=(10,4))
for ticker, ret in worst_one_month_performance.items():
    plt.plot(data['Adj Close'][ticker].pct_change(periods=22).tail(22) * 100,
             label=ticker)
plt.title('Last 1M Monthly Returns for Worst Performing Stocks as of '+_today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Monthly Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()
```

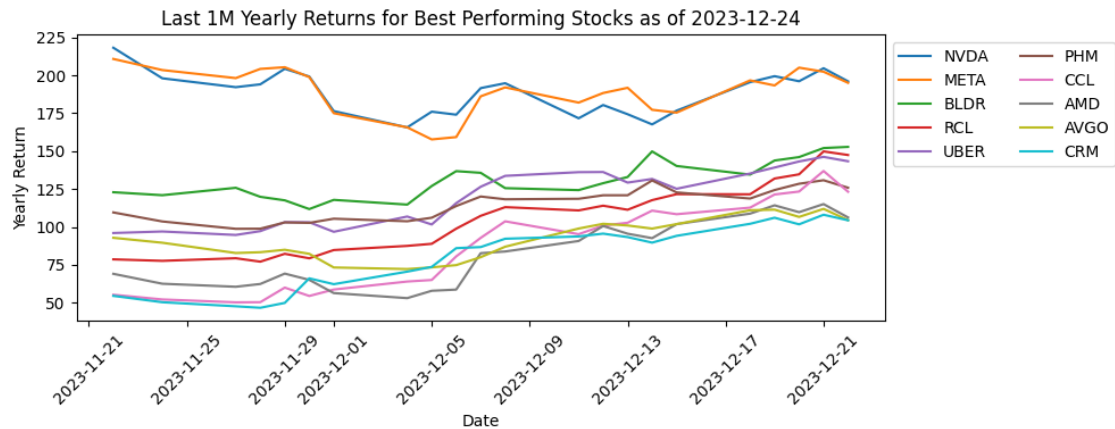
	Ticker	1M Return
0	ACGL	-14.089588
1	EG	-12.958245
2	HUM	-12.102398
3	AON	-11.341114
4	AJG	-10.999870
5	EXC	-9.264030
6	ORCL	-8.637303
7	SBUX	-7.888634
8	BG	-7.211979
9	CEG	-6.425962



```
[ ]: # Best 1Y Performance
best_one_year = best_one_year_performance.reset_index()
best_one_year.columns = ['Ticker', '1Y Return']
print(best_one_year)

# Plot of best performing stocks over 1 Year
plt.figure(figsize=(10,4))
for ticker, ret in best_one_year_performance.items():
    plt.plot(data['Adj Close'][ticker].pct_change(periods=252).tail(22) * 100,
             label=ticker)
plt.title('Last 1M Yearly Returns for Best Performing Stocks as of '+_today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Yearly Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()
```

	Ticker	1Y Return
0	NVDA	196.052787
1	META	195.081837
2	BLDR	152.819352
3	RCL	147.461886
4	UBER	143.335953
5	PHM	125.870078
6	CCL	123.231148
7	AMD	106.264784
8	AVGO	104.464433
9	CRM	104.405211



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[ ]: # Worst 1Y Performance
worst_one_year = worst_one_year_performance.reset_index()
worst_one_year.columns = ['Ticker', '1Y Return']
print(worst_one_year)

# Plot of best performing stocks over 1 Year
plt.figure(figsize=(10,4))
for ticker, ret in worst_one_year_performance.items():
    plt.plot(data['Adj Close'][ticker].pct_change(periods=252).tail(22) * 100,
            label=ticker)
plt.title('Last 1M Monthly Returns for Worst Performing Stocks as of '+_today)
plt.xlabel('Date')
plt.xticks(rotation=45)
plt.ylabel('Yearly Return')
plt.legend(loc='upper left', ncol=2, bbox_to_anchor=(1,1))
plt.tight_layout()
plt.show()
```

	Ticker	1Y Return
0	ENPH	-57.745190
1	MRNA	-54.822890
2	FMC	-48.631419
3	DG	-45.170074
4	PFE	-42.530822
5	EL	-39.849125
6	ETSY	-36.760221
7	ALB	-34.919944
8	PAYC	-33.437038
9	AES	-31.366743

