

My Journey at Bristol Gate

April 22nd, 2022

Chang Liu



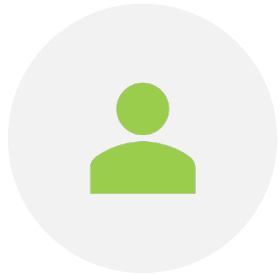
Our Projects



Project 1: Dividend
Frequency Checker
(Sept to Oct)



Project 2: Data Quality
Checker (Nov to Dec)



Project 3: Data
Uploader (Jan to Feb)



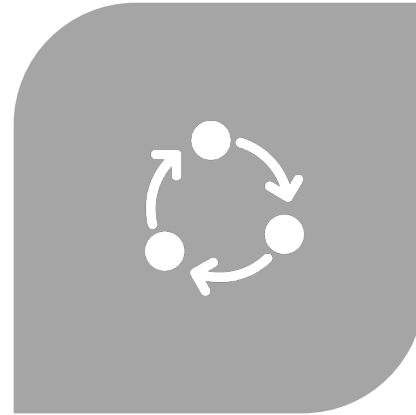
Project 4: Technical
Indicators (March to
April)



Project 1: Dividend Frequency Checker



COMB THROUGH THE DIVIDEND DATA
AND CHECK FOR ISSUES.



WROTE A PYTHON SCRIPT THAT
COMPARES DIVIDEND FREQUENCY OF SP
500 DATA HISTORY.



FOUND 141 PROBLEMATIC ENTRIES THAT
WE LATER FIXED.



Project 1
Results

Total Filtered	141	100%
Total Bad Dividend	112	79%
Total Div Freq	28	20%

Skipped	75.0%
Skipped Extra Mix	8.9%
Extra	1.8%
Special	0.9%
Duplicate	13.4%



Project 2: Data Quality Checker

- Goal

Create a convenient tool to continuously monitor data quality

- Method

Verifies data quality on 6 different Bristol Gate SQL table

- Result

Streamlit dashboard that automatically updates daily that highlights problematic data



Other views:

View by Date

Holidays:

Show US Holiday

Show Canadian Holiday

Data Quality Checker

Summary

Select a year

2021 - +

Select a table to view details.

Portfolio Holding × Universe Snapshot × Portfolio Return × ⌵

BMC Monthly

BM Prices

Div LTM

Show color references

	Table	Reason
0	BM Prices	Not Updated Daily
1	Portfolio Return	Not Updated Daily
2	Portfolio Holding	Problematic Rows
3	Portfolio Holding	Not Updated Daily
4	BMC Monthly	Problematic Rows
5	BMC Monthly	Not Updated Monthly
6	Universe Snapshot	Problematic Rows
7	Universe Snapshot	Large monthly portfolio count differences
8	Universe Snapshot	Not Updated Monthly
9	Div LTM	Problematic Rows
10	Div LTM	Not Updated Monthly

There is a 1 day data update lag for some tables.

January

	M	T	W	Th	F
1					1
2	4	5	6	7	8
3	11	12	13	14	15
4	18	19	20	21	22
5	25	26	27	28	29

February

	M	T	W	Th	F
1	1	2	3	4	5
2	8	9	10	11	12
3	15	16	17	18	19
4	22	23	24	25	26

March

	M	T	W	Th	F
1	1	2	3	4	5
2	8	9	10	11	12
3	15	16	17	18	19
4	22	23	24	25	26
5	29	30	31		

April

	M	T	W	Th	F
1				1	2
2	5	6	7	8	9
3	12	13	14	15	16
4	19	20	21	22	23
5	26	27	28	29	30

May

	M	T	W	Th	F
1					
2	3	4	5	6	7
3	10	11	12	13	14
4	17	18	19	20	21
5	24	25	26	27	28
6	31				

June

	M	T	W	Th	F
1		1	2	3	4
2	7	8	9	10	11
3	14	15	16	17	18
4	21	22	23	24	25
5	28	29	30		

July

	M	T	W	Th	F
1				1	2
2	5	6	7	8	9
3	12	13	14	15	16
4	19	20	21	22	23
5	26	27	28	29	30

August

	M	T	W	Th	F
1					
2	2	3	4	5	6
3	9	10	11	12	13
4	16	17	18	19	20
5	23	24	25	26	27
6	30	31			

September

	M	T	W	Th	F
1			1	2	3
2	6	7	8	9	10
3	13	14	15	16	17
4	20	21	22	23	24
5	27	28	29	30	

October

	M	T	W	Th	F
1					1
2	4	5	6	7	8
3	11	12	13	14	15
4	18	19	20	21	22
5	25	26	27	28	29

November

	M	T	W	Th	F
1	1	2	3	4	5
2	8	9	10	11	12
3	15	16	17	18	19
4	22	23	24	25	26
5	29	30			

December

	M	T	W	Th	F
1			1	2	3
2	6	7	8	9	10
3	13	14	15	16	17
4	20	21	22	23	24
5	27	28	29	30	31



Project 3 : Data Uploader

- Goal

Easily compare data discrepancies from Factset and Bloomberg

Easily update the data in our database at month end

- Method

Compare and contrast data from Factset, Bloomberg, and our database with plots and tables

- Result

Dashboard that includes a data visualizer (Compare with Factset, Compare all, Compare with Bloomberg, BG data, Split History, etc) and a data editor.

Dividend Entry Uploader

▼ Step 1: Select date and file path (optional)

02/03/2022 ×

← February 2022 →

Su	Mo	Tu	We	Th	Fr	Sa
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	1	2	3	4	5

▼ Customize path

Path for new dividend data

\\bgndc\Analysts\Scheduled_Jobs\output\new_dvd_data_20220203.parquet

Path for seclist

\\bgndc\Analysts\Scheduled_Jobs\input\sec_list_20220203.csv

Submit path

► Step 3: Select which type of data to view.

► Step 5: Edit selected data

Dividend Entry Uploader

▼ Step 1: Select date and file path (optional)

02/03/2022 ×

▼ Customize path

Path for new dividend data

\\bgndc\Analysts\Scheduled_Jobs\output\new_dvd_data_20220203.parquet

Path for seclist

\\bgndc\Analysts\Scheduled_Jobs\input\sec_list_20220203.csv

Submit path

▼ Step 2: Select index numbers

Getting index members only?

- Yes
 No

▼ Step 3: Select which type of data to view.

Select the type of data

- All Goods Mismatched Skipped

▼ Step 4: View data

There is no entry to be reviewed for all_goods

► Step 5: Edit selected data



▼ Step 4: View data

Prev

Next

Select...

Modify Later

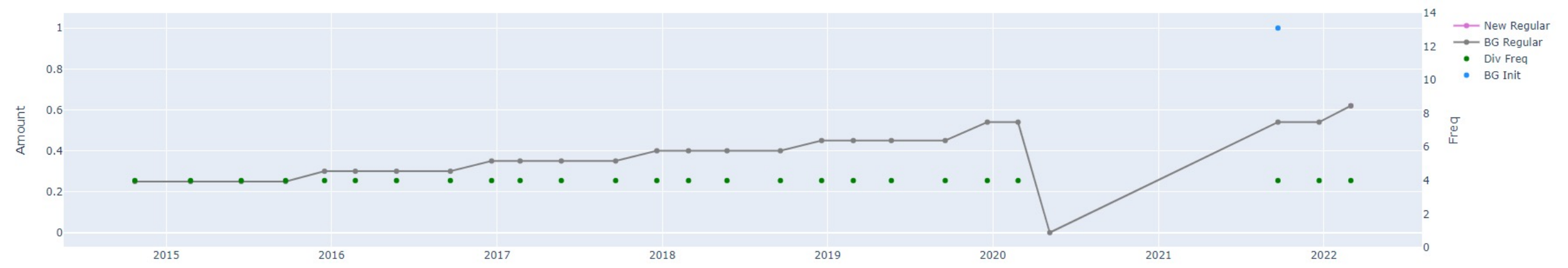
All modified secid added

Fsym Id: B0TXKG-R | **BBG Id:** BBG001J2R5H3 |
Company name: Marriott Vacations Worldwide Corporation
Ticker: VAC-US | **BBG Crncy:** USD | **FS Crncy:** USD

Payments on 2022-03-02 already exists.

fsym_id	exdate	payment_date_bbg	payment_amount_bbg	payment_date_factset	payment_amount_factset	check_amount	check_payment_date
B0TXKG-R	2022-03-02	2022-03-17	0.62			Good	Mismatch

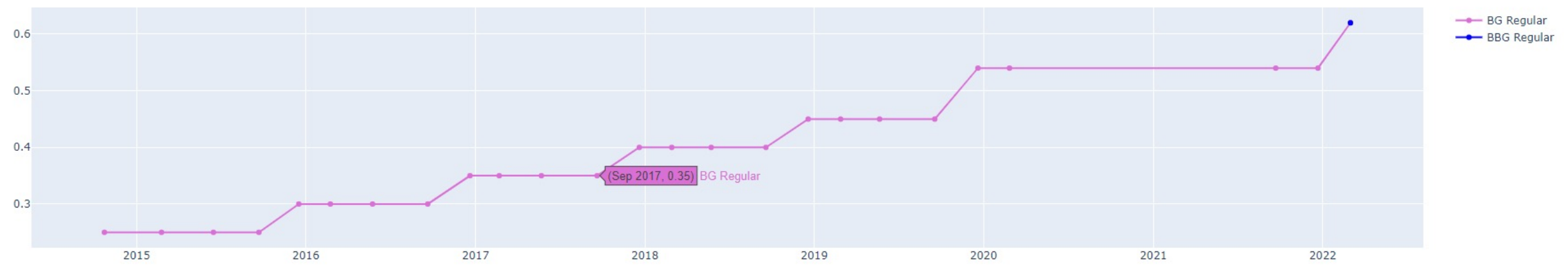
fsym_id	listing_currency	payment_currency	declared_date	exdate	record_date	payment_date	payment_amount	div_type	div_freq	div_initiation	skipped
B0TXKG-R	USD	USD	2022-02-22	2022-03-02	2022-03-03	2022-03-17	0.62	regular	4	0	false





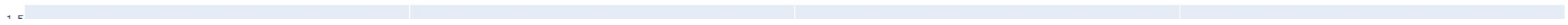
Factset

Compare with factset



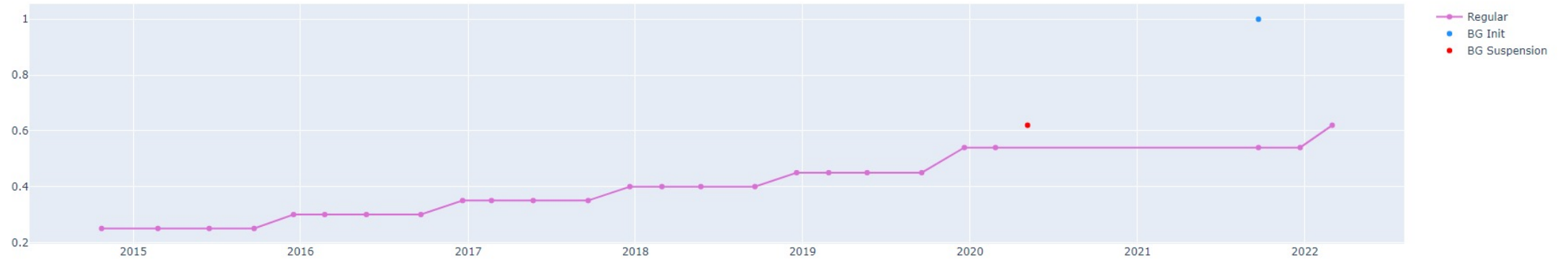
Bloomberg

Bloomberg data



BG

BG Data



fsym_id	exdate	div_f	div_initiation	payment_amount	div_type
filter data...					
B0TXKG-R	2022-03-02	4	false	0.62	regular
B0TXKG-R	2021-12-22	4	false	0.54	regular
B0TXKG-R	2021-09-22	4	true	0.54	regular
B0TXKG-R	2020-05-06		false	0	suspension
B0TXKG-R	2020-02-26	4	false	0.54000021	regular
B0TXKG-R	2019-12-20	4	false	0.54000021	regular
B0TXKG-R	2019-09-18	4	false	0.449999988	regular
B0TXKG-R	2019-05-22	4	false	0.449999988	regular
B0TXKG-R	2019-02-27	4	false	0.449999988	regular
B0TXKG-R	2018-12-19	4	false	0.449999988	regular

▼ Step 5: Edit selected data

Edit Entries

All x														
	fsym_id	listing_curre	payment_curre	declared_date	exdate	record_date	payment_date	payment_amount	div_type	div_freq	div_initiatio	skipped	num_days_exda	num_days_payd
✕	BM9QXX-R	USD	USD	2021-11-15	2022-02-28	2022-03-01	2022-03-15	0.46	special	4	0			
✕	B19ST9-R	USD	CAD	2021-12-13	2022-02-14	2022-02-15	2022-03-10	0.98	regular	2	0			

Edit History

	action	fsym_id	listing_curre	payment_curre	declared_date	exdate	record_date	payment_date	payment_amount	div_type	div_freq	div_initiation	skipped
✕	update	BM9QXX-R	USD	USD	2021-11-15	2022-02-28	2022-03-01	2022-03-15	0.46	regular	4	0	false
✕	original	BM9QXX-R	USD	USD	2021-11-15	2022-02-28	2022-03-01	2022-03-15	0.46	regular	4	0	false
✕	update	B19ST9-R	USD	CAD	2021-12-13	2022-02-14	2022-02-15	2022-03-10	0.98	regular	4	0	false
✕	original	B19ST9-R	USD	USD	2021-12-13	2022-02-14	2022-02-15	2022-03-10	0.98	regular	4	0	false
✕	update	BM9QXX-R		USD	2021-11-15	2022-02-28	2022-03-01	2022-03-15	0.46	special	4	0	false
✕	original	BM9QXX-R		USD	2021-11-15	2022-02-28	2022-03-01	2022-03-15	0.46	regular	4	0	false
✕	update	B19ST9-R	USD	CAD	2021-12-13	2022-02-14	2022-02-15	2022-03-10	0.98	regular	2	0	false
✕	original	B19ST9-R	USD	CAD	2021-12-13	2022-02-14	2022-02-15	2022-03-10	0.98	regular	4	0	false

Upload modified to DB

Project 4 : Technical Indicators

- Goal

Find the optimal time for rebalancing our portfolio

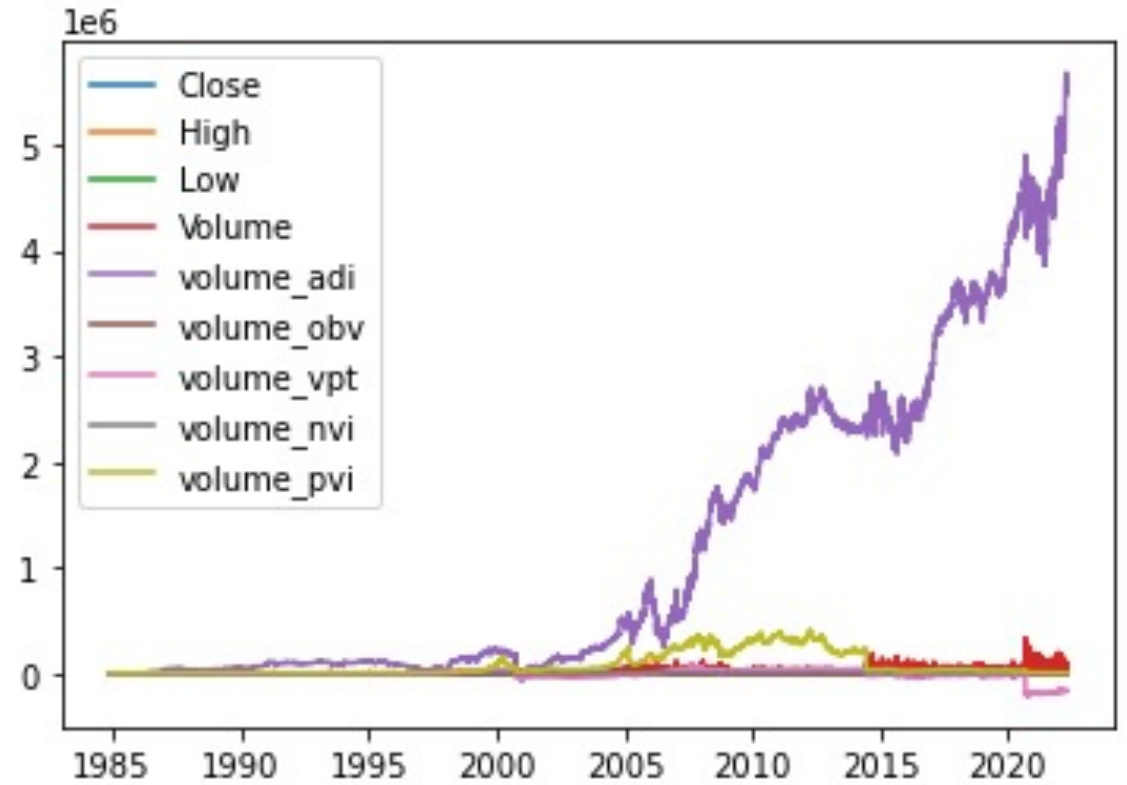
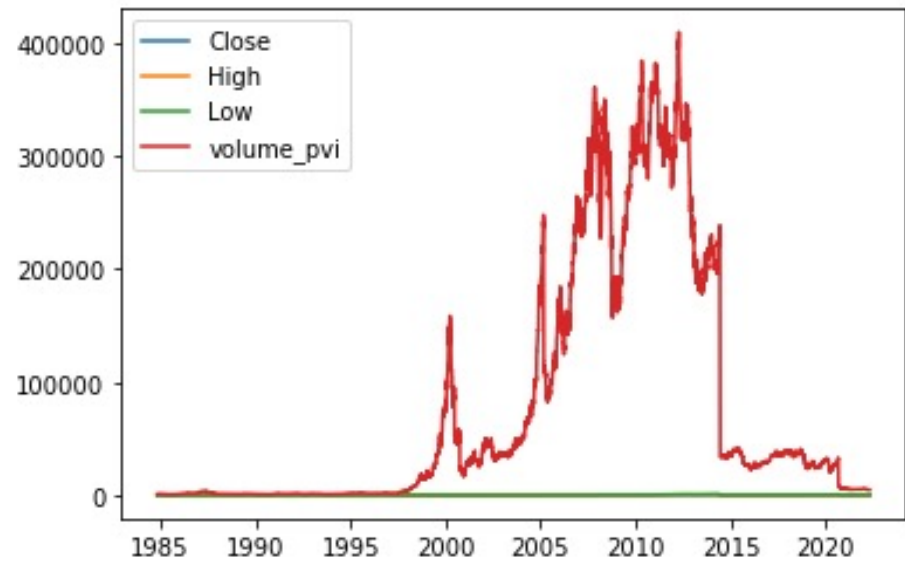
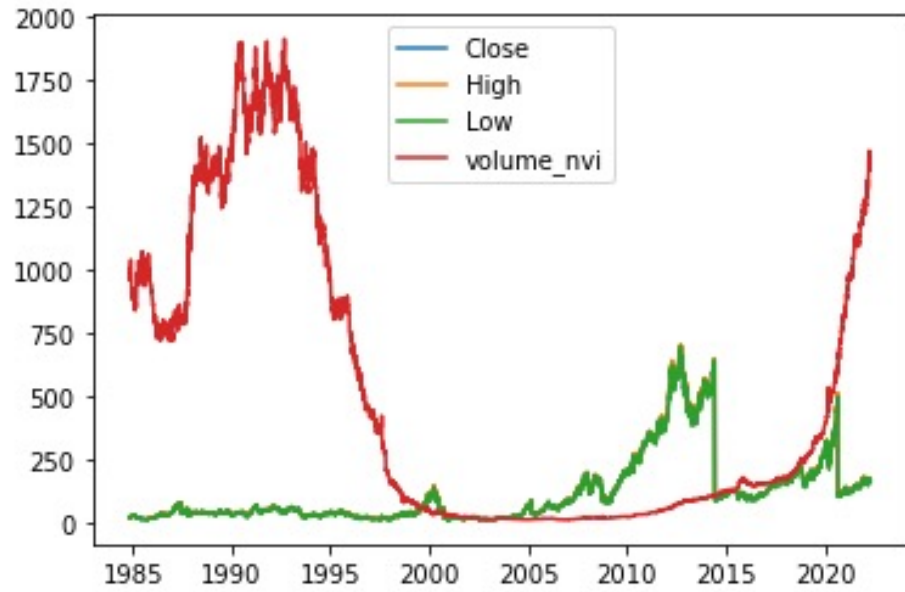
- Method

ML model that dynamic rebalances our portfolio

- Result

Coded 97 technical indicators that serves as the basis for the ML model later







Thank you for
coming

ANY QUESTIONS?