Kafka test setup (kafkaDelay3Full)

Technology: Kafka Streams
Producer Delay (Send next message): 3ms
Full data set (qty): 8760
Processed values (qty): 1945
Number of tests performed: 10
Start: Timestamp from Producer
End: Timestamp from Consumer
Unit: The results are given in seconds

Kafka median values

End Subtract Start: 0.09999999999999999

Kafka standard deviation

End Subtract Start: 0.10287394743004508
Lower Bound: -0.1939344386911635
UpperBound: 0.42330924588910696
Number of data in the std range: 1882
Number of data outside the std range: 63

Kafka interquartile range

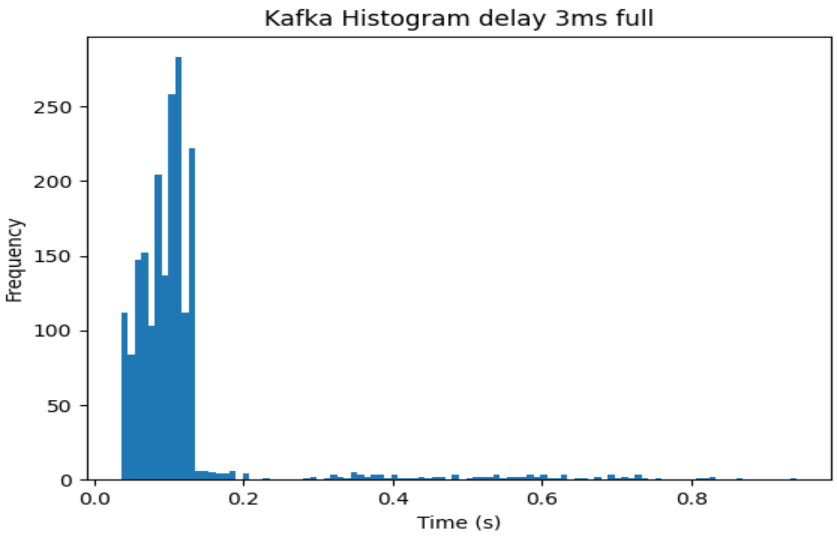
End Subtract Start: 0.04509999999999997

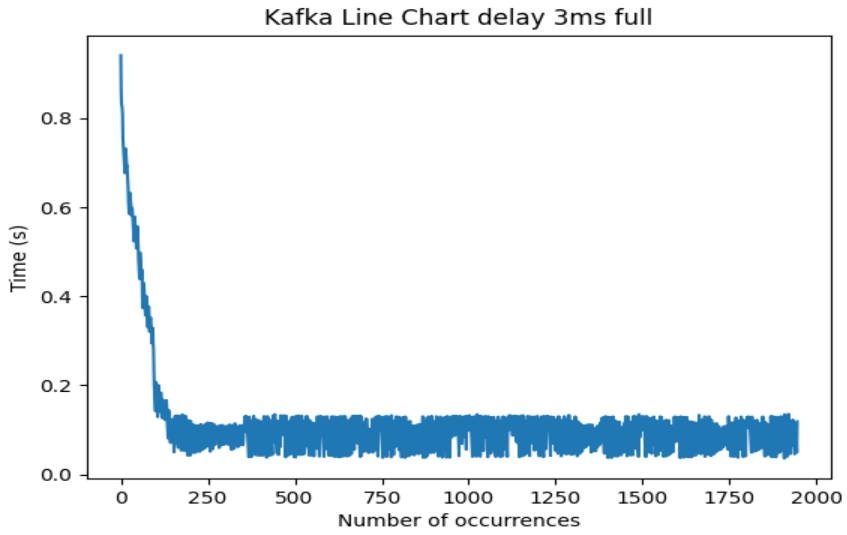
Kafka mean

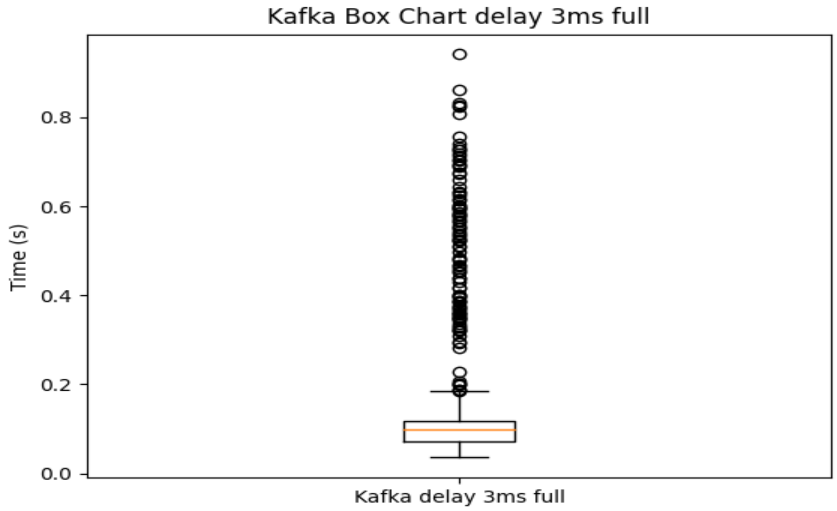
End Subtract Start: 0.11468740359897173

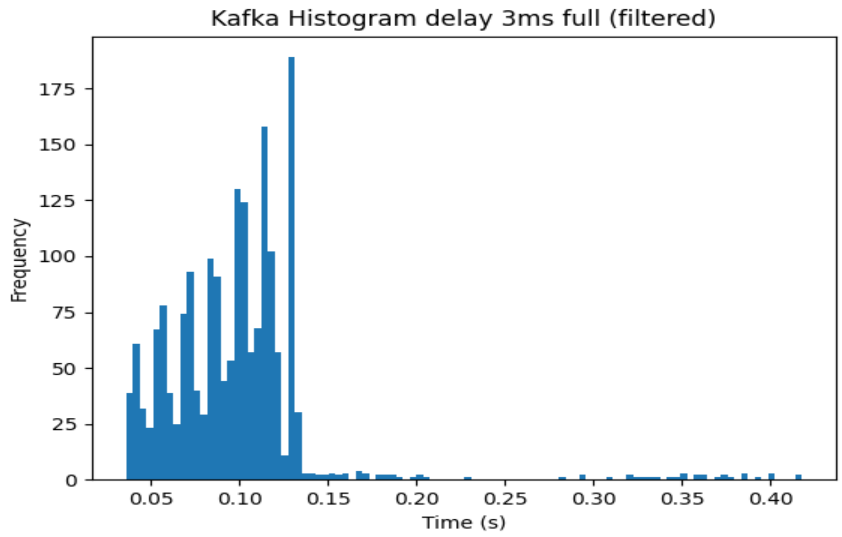
Average time for each sample

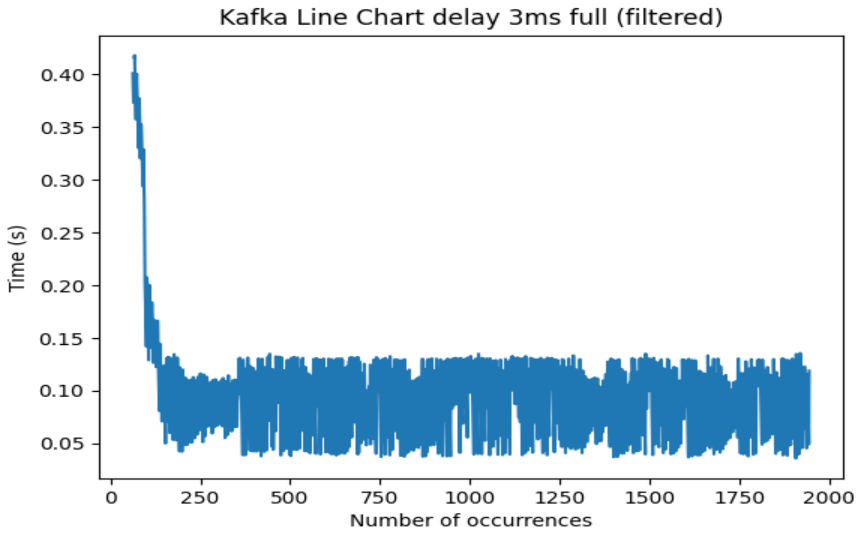
0.16940411311053985 0.08927969151670952 0.09762570694087404
0.09778766066838046 0.09601233933161954 0.0952185089974293
0.09086221079691519 0.08966323907455014 0.08981233933161954
0.2312082262210797

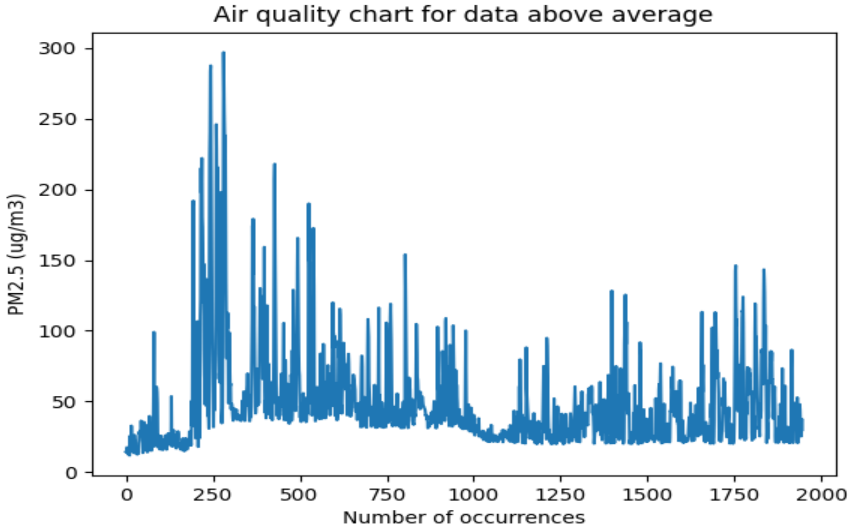

Kafka Histogram delay 3ms full
Frequency
Time (s)
0
50
100
150
200
250
0.0
0.2
0.4
0.6
0.8

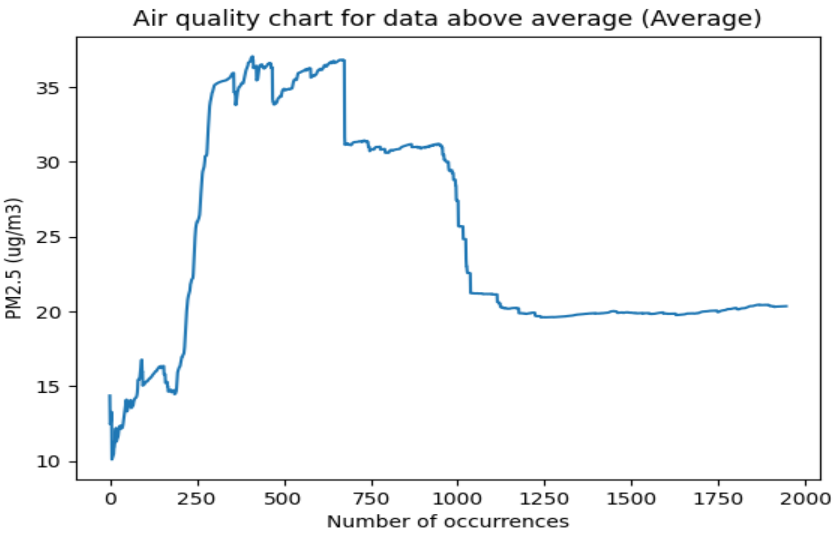

Kafka Line Chart delay 3ms full
Time (s)
Number of occurrences
0.0
0.2
0.4
0.6
0.8
0
250
500
750
1000
1250
1500
1750
2000


Kafka Box Chart delay 3ms full
Time (s)
Kafka delay 3ms full
0.0
0.2
0.4
0.6
0.8


Kafka Histogram delay 3ms full (filtered)
Frequency
Time (s)
0
25
50
75
100
125
150
175
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40


Kafka Line Chart delay 3ms full (filtered)
Time (s)
Number of occurrences
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average (Average)
PM2.5 (ug/m3)
35
30
25
20
15
10
0
250
500
750
1000
1250
1500
1750
2000
Number of occurrences

Kafka test setup (kafkaDelay0Full)

Technology: Kafka Streams
Producer Delay (Send next message): 0ms
Full data set (qty): 8760
Processed values (qty): 1945
Number of tests performed: 10
Start: Timestamp from Producer
End: Timestamp from Consumer
Unit: The results are given in seconds

Kafka median values

End Subtract Start: 0.6169

Kafka standard deviation

End Subtract Start: 0.1407000128010295
Lower Bound: 0.2697069024709474
Upper Bound: 1.1139069792771243
Number of data in the std range: 1945
Number of data outside the std range: 0

Kafka interquartile range

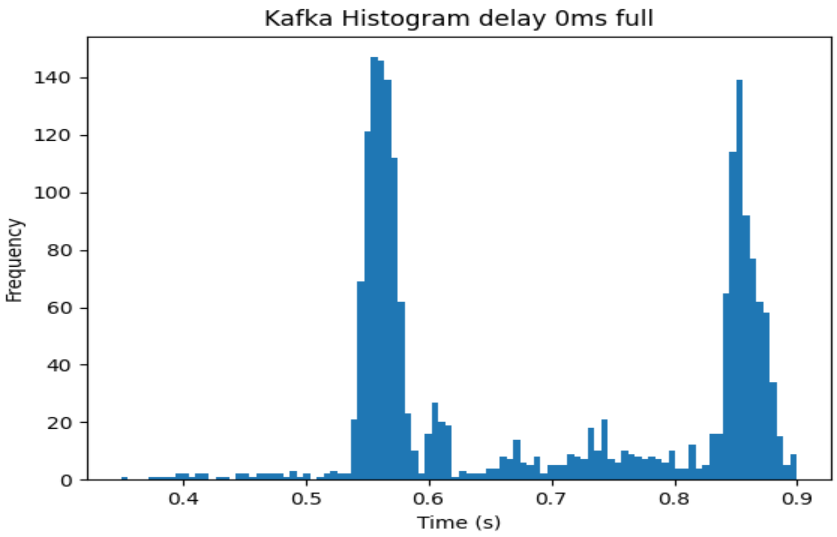
End Subtract Start: 0.28880000000000006

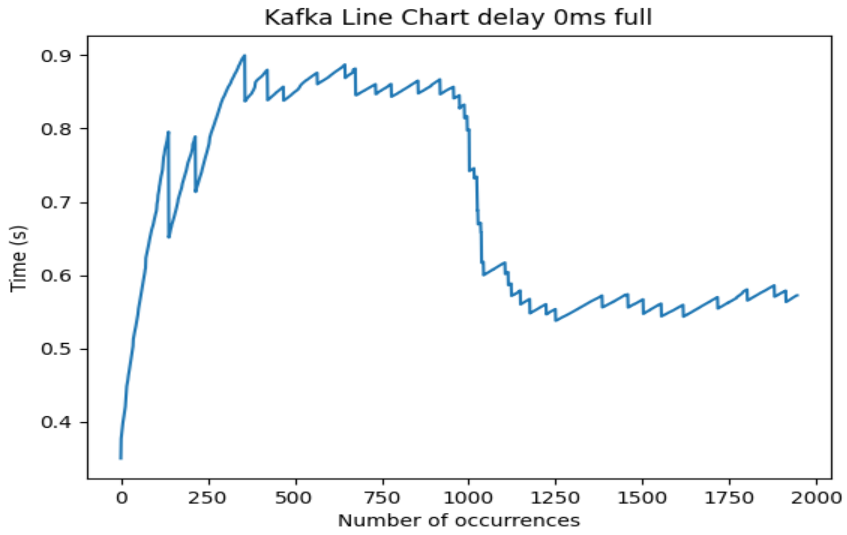
Kafka mean

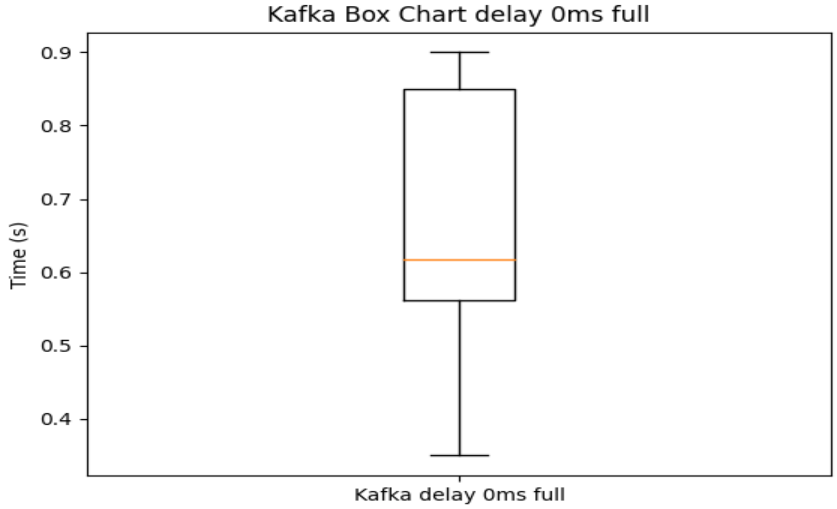
End Subtract Start: 0.6918069408740359

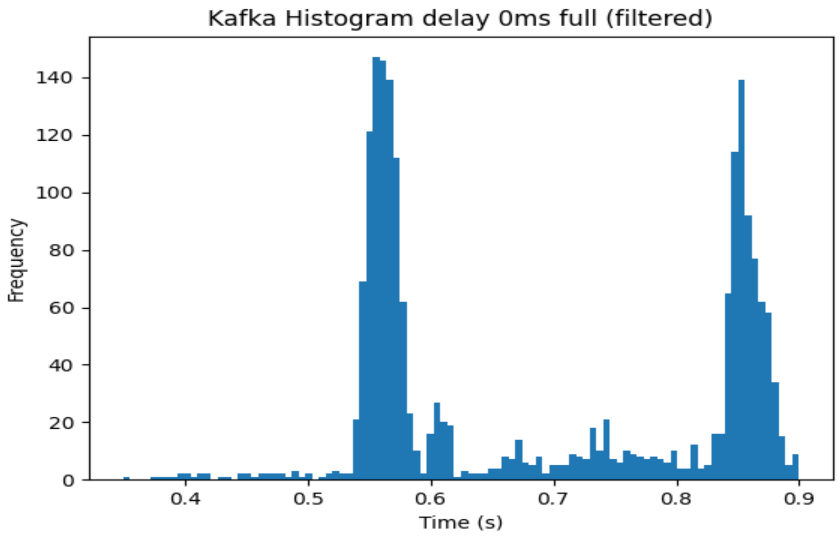
Average time for each sample

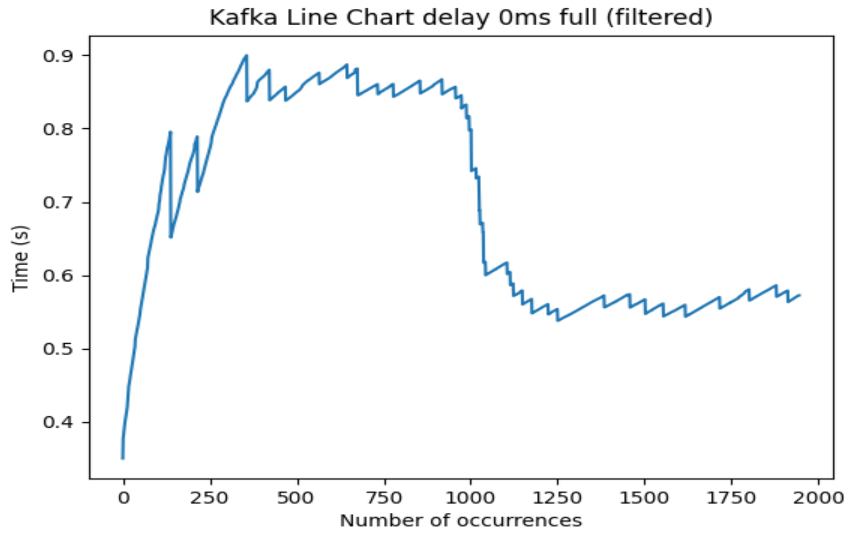
0.8400750642673521 0.6532210796915168 0.7697064267352185
0.6874354755784061 0.6448071979434448 0.6673604113110541
0.6933686375321337 0.7055845758354756 0.6246359897172236
0.6318745501285348

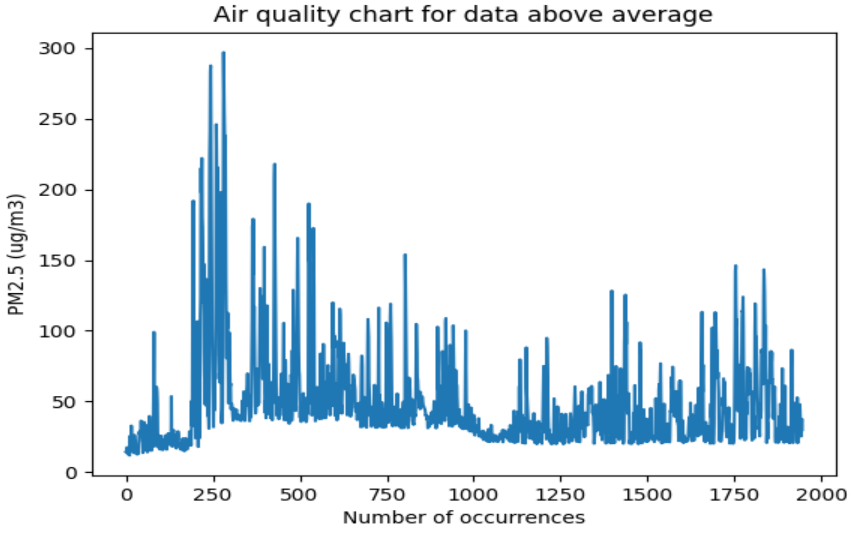

Kafka Histogram delay 0ms full
Frequency
Time (s)
0
20
40
60
80
100
120
140
0.4
0.5
0.6
0.7
0.8
0.9

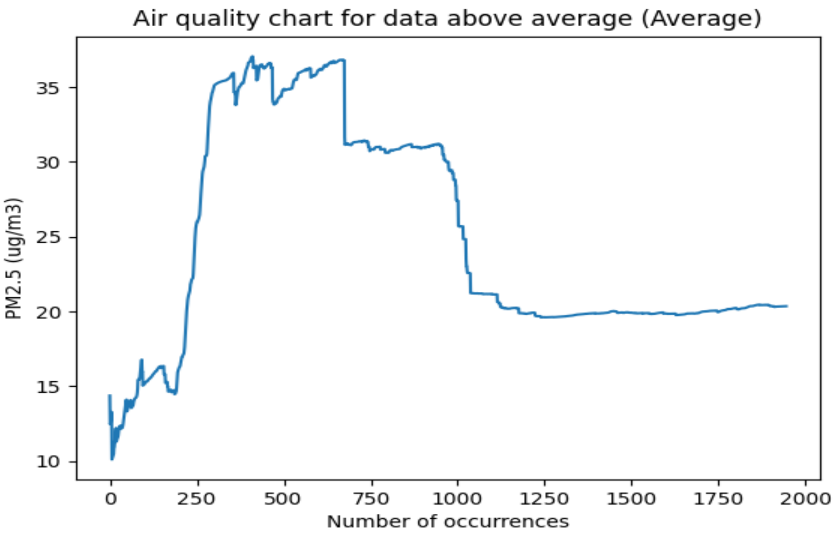

Kafka Line Chart delay 0ms full
Time (s)
Number of occurrences
0.4
0.5
0.6
0.7
0.8
0.9
0
250
500
750
1000
1250
1500
1750
2000


Kafka Box Chart delay 0ms full
Time (s)
Kafka delay 0ms full
0.4
0.5
0.6
0.7
0.8
0.9


Kafka Histogram delay 0ms full (filtered)
Frequency
Time (s)
0
20
40
60
80
100
120
140
0.4
0.5
0.6
0.7
0.8
0.9


Kafka Line Chart delay 0ms full (filtered)
Time (s)
Number of occurrences
0.4
0.5
0.6
0.7
0.8
0.9
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average (Average)
PM2.5 (ug/m3)
35
30
25
20
15
10
0
250
500
750
1000
1250
1500
1750
2000
Number of occurrences

Kafka test setup (kafkaDelay0Half)

Technology: Kafka Streams
Producer Delay (Send next message): 0ms
Full data set (qty): 4380
Processed values (qty): 1024
Number of tests performed: 10
Start: Timestamp from Producer
End: Timestamp from Consumer
Unit: The results are given in seconds

Kafka median values

End Subtract Start: 0.6984999999999999

Kafka standard deviation

End Subtract Start: 0.05454179554184078
Lower Bound: 0.5306247110307276
Upper Bound: 0.8578754842817724
Number of data in the std range: 1002
Number of data outside the std range: 22

Kafka interquartile range

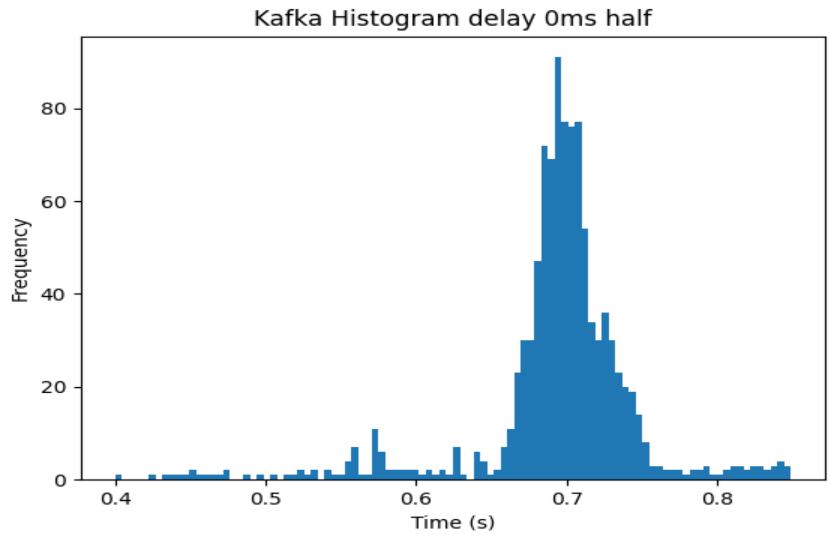
End Subtract Start: 0.031749999999999945

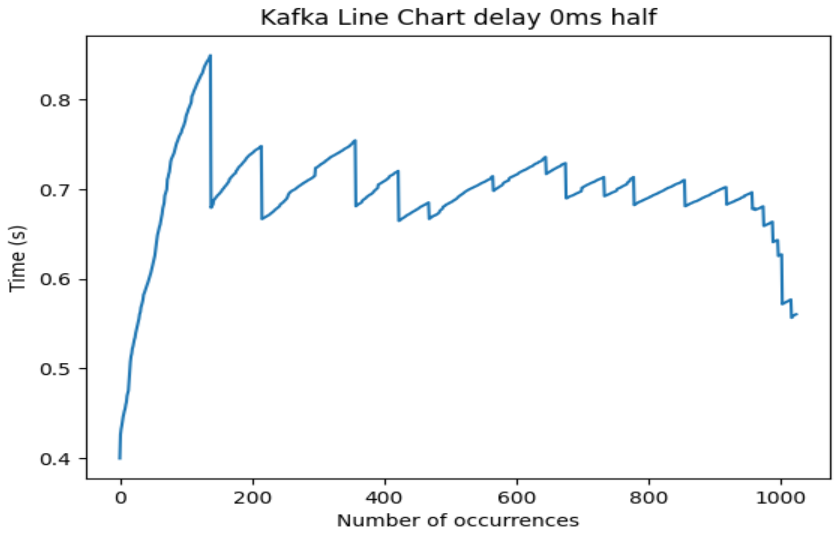
Kafka mean

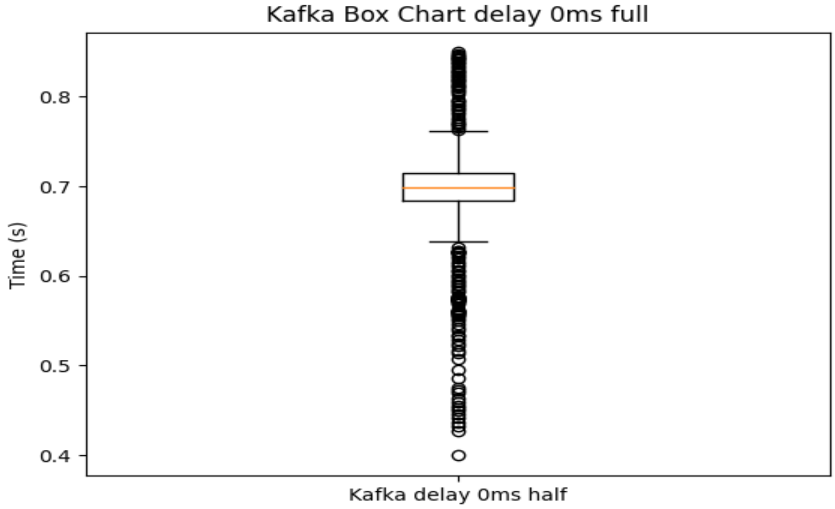
End Subtract Start: 0.69425009765625

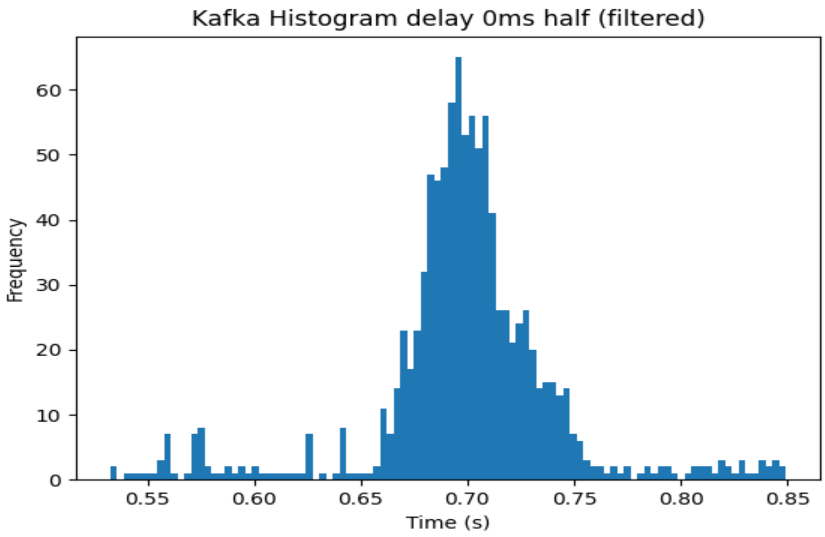
Average time for each sample

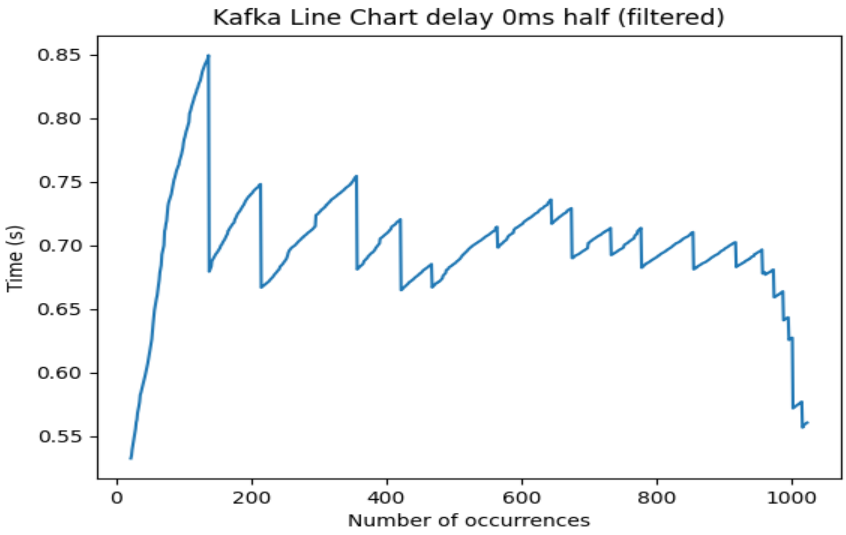
0.5649472656250001 0.5526201171875 0.9706806640625001
0.6253662109375 0.6315312500000001 0.5583808593749999
0.63508203125 0.6297099609375001 1.0912480468749999
0.6829345703125

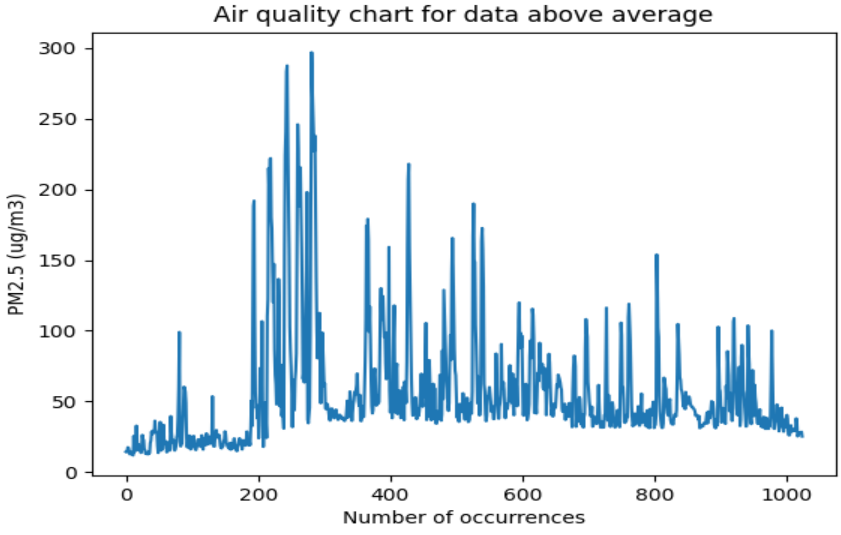

Kafka Histogram delay 0ms half
Frequency
Time (s)
0
20
40
60
80
0.4
0.5
0.6
0.7
0.8

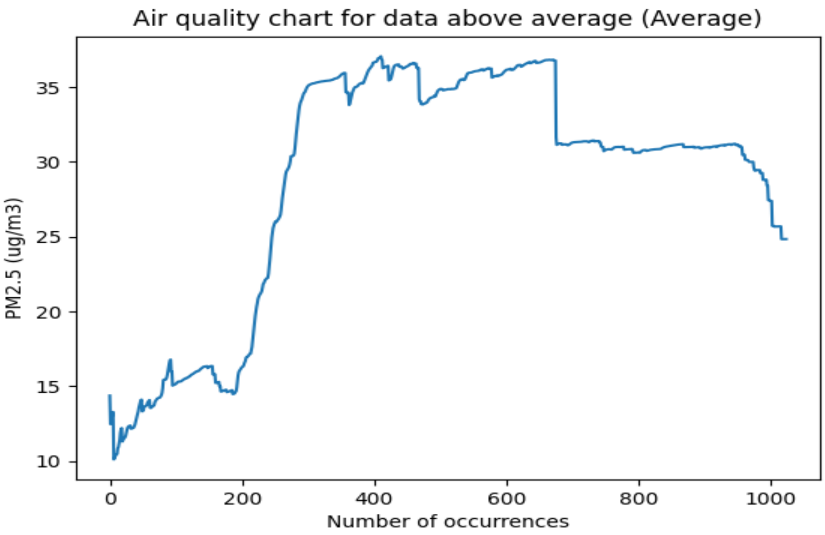

Kafka Line Chart delay 0ms half
Time (s)
Number of occurrences
0.4
0.5
0.6
0.7
0.8
0
200
400
600
800
1000


Kafka Box Chart delay 0ms full
Time (s)
Kafka delay 0ms half
0.4
0.5
0.6
0.7
0.8


Kafka Histogram delay 0ms half (filtered)
Frequency
Time (s)
0
10
20
30
40
50
60
0.55
0.60
0.65
0.70
0.75
0.80
0.85


Kafka Line Chart delay 0ms half (filtered)
Time (s)
Number of occurrences
0.55
0.60
0.65
0.70
0.75
0.80
0.85
0
200
400
600
800
1000


Air quality chart for data above average
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
200
400
600
800
1000


Air quality chart for data above average (Average)
PM2.5 (ug/m3)
10
15
20
25
30
35
0
200
400
600
800
1000
Number of occurrences

Spark test setup (sparkDelay3Full)

Technology: Spark Structured Streaming
Producer Delay (Send next message): 3ms
Full data set (qty): 8760
Processed values (qty): 1945
Number of tests performed: 10
Start: Timestamp from Producer
End: Timestamp from Consumer
Unit: The results are given in seconds

Spark median values

End Subtract Start: 1.0102

Spark standard deviation

End Subtract Start: 0.6037551492871566
Lower Bound: -0.6543019003036292
Upper Bound: 2.9682289954193104
Number of data in the std range: 1869
Number of data outside the std range: 76

Spark interquartile range

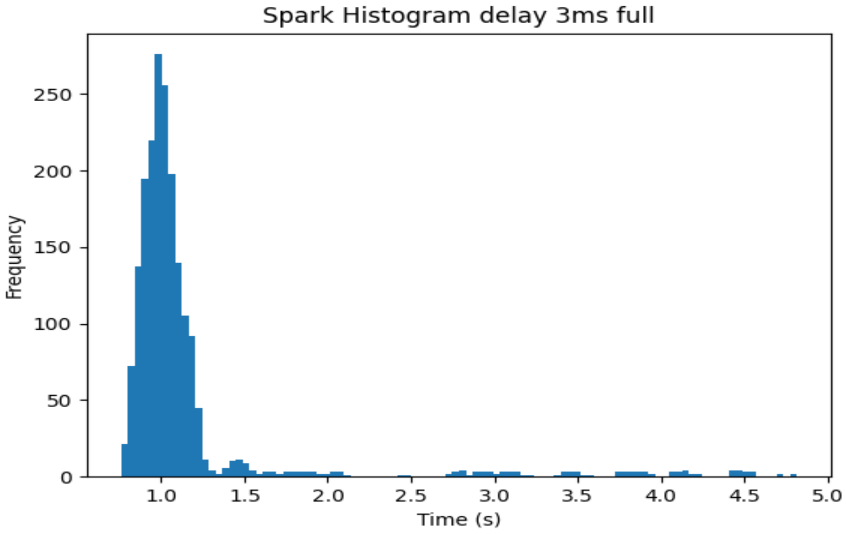
End Subtract Start: 0.17410000000000003

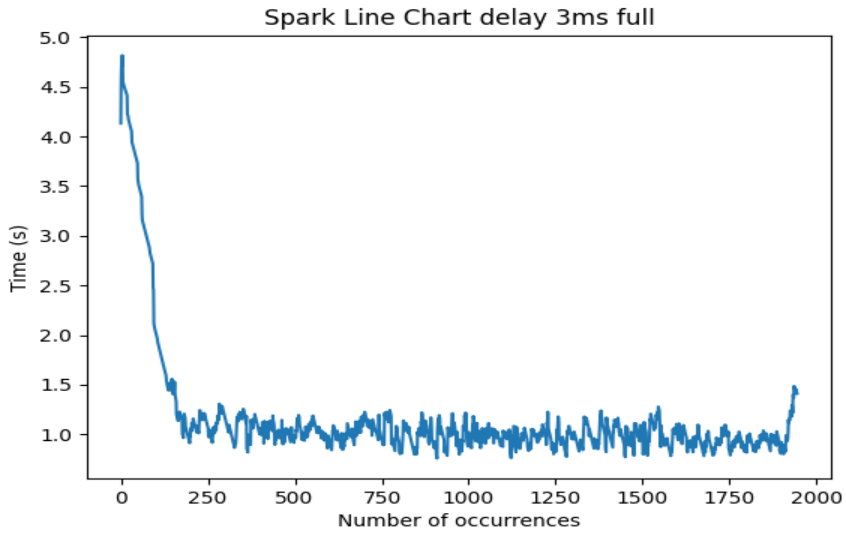
Spark mean

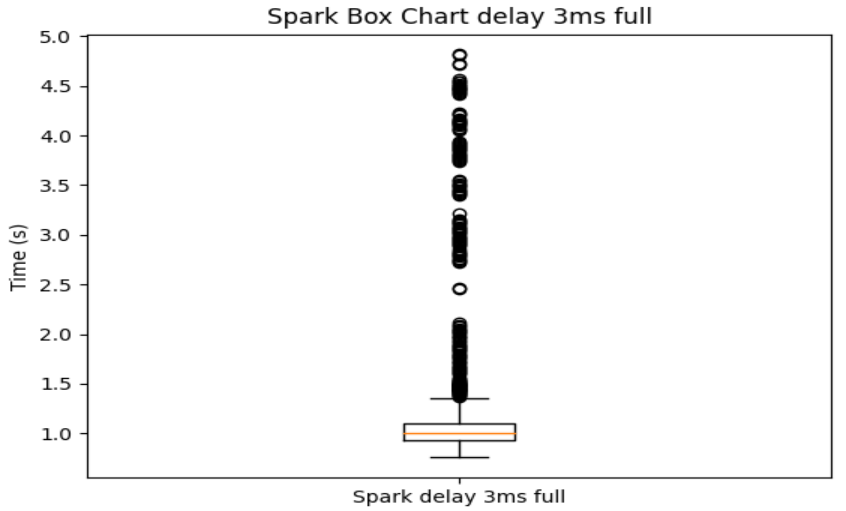
End Subtract Start: 1.1569635475578406

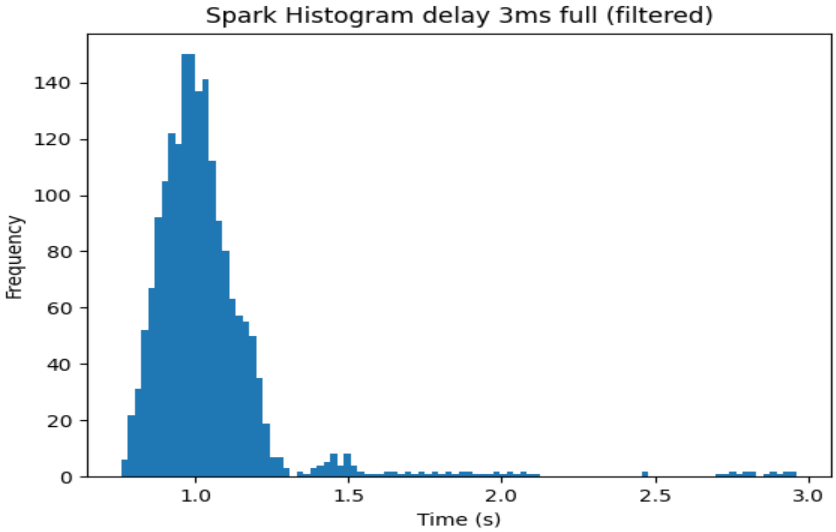
Average time for each sample

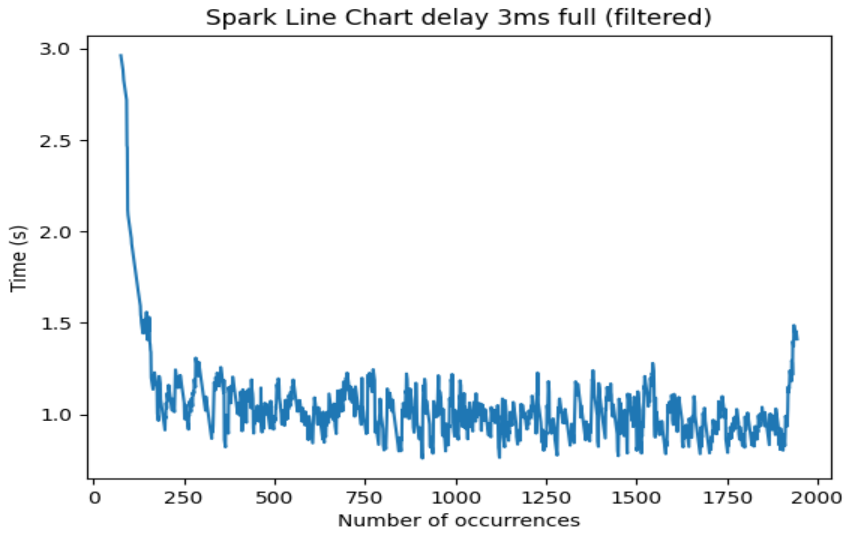
1.1516580976863755 1.0453053984575835 1.3607917737789201
1.1758061696658098 1.1614843187660668 1.1881264781491003
1.1134570694087405 1.1417856041131107 1.1417727506426736
1.0894478149100255

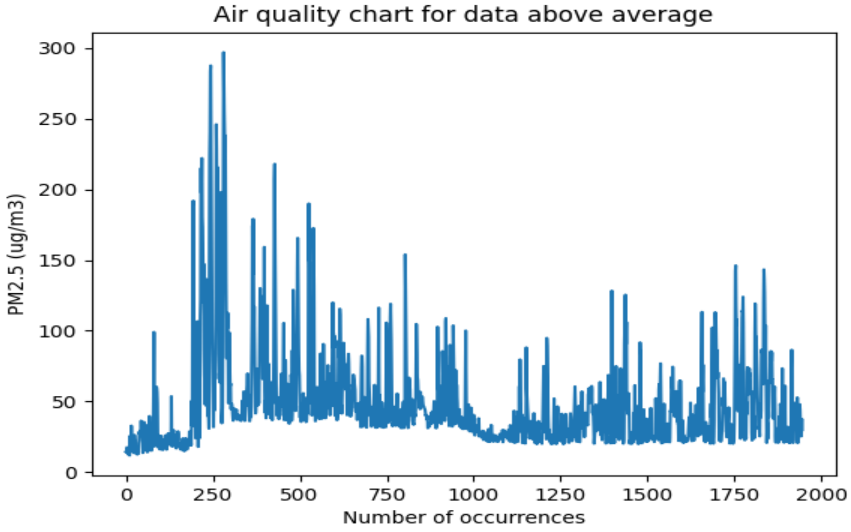

Spark Histogram delay 3ms full
Frequency
Time (s)
0
50
100
150
200
250
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

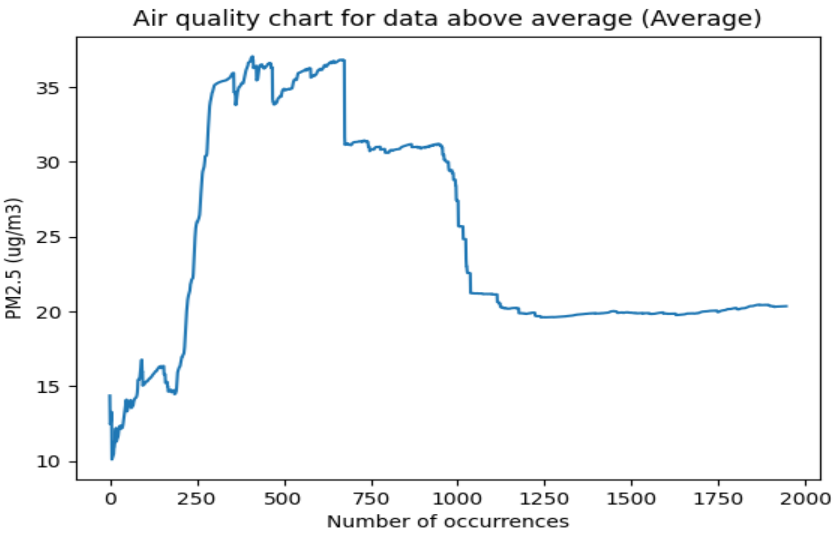

Spark Line Chart delay 3ms full
Time (s)
Number of occurrences
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
0
250
500
750
1000
1250
1500
1750
2000


Spark Box Chart delay 3ms full
Time (s)
Spark delay 3ms full
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0


Spark Histogram delay 3ms full (filtered)
Frequency
Time (s)
0
20
40
60
80
100
120
140
1.0
1.5
2.0
2.5
3.0


Spark Line Chart delay 3ms full (filtered)
Time (s)
Number of occurrences
1.0
1.5
2.0
2.5
3.0
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average (Average)
PM2.5 (ug/m3)
35
30
25
20
15
10
0
250
500
750
1000
1250
1500
1750
2000
Number of occurrences

Spark test setup (sparkDelay0Full)

Technology: Spark Structured Streaming
Producer Delay (Send next message): 0ms
Full data set (qty): 8760
Processed values (qty): 1945
Number of tests performed: 10
Start: Timestamp from Producer
End: Timestamp from Consumer
Unit: The results are given in seconds

Spark median values

End Subtract Start: 4.190799999999999

Spark standard deviation

End Subtract Start: 0.14275810415171508
Lower Bound: 3.742941471606551
Upper Bound: 4.599490096516842
Number of data in the std range: 1849
Number of data outside the std range: 96

Spark interquartile range

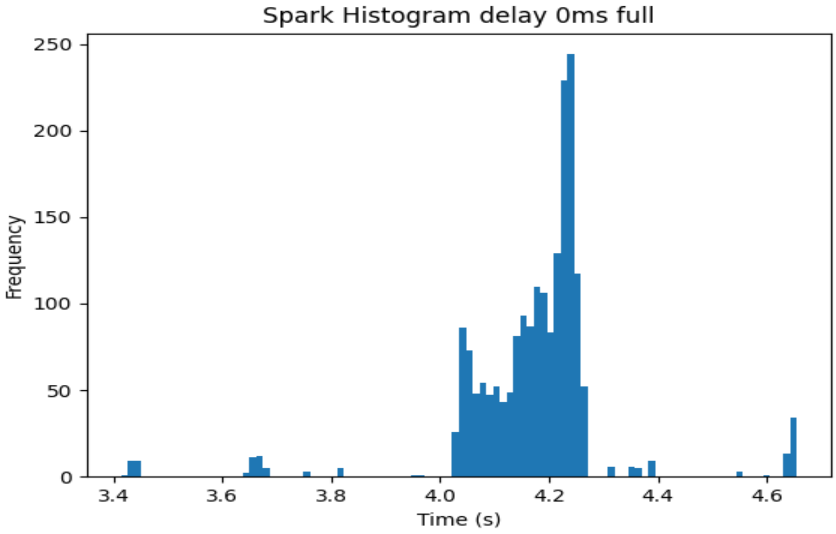
End Subtract Start: 0.11289999999999978

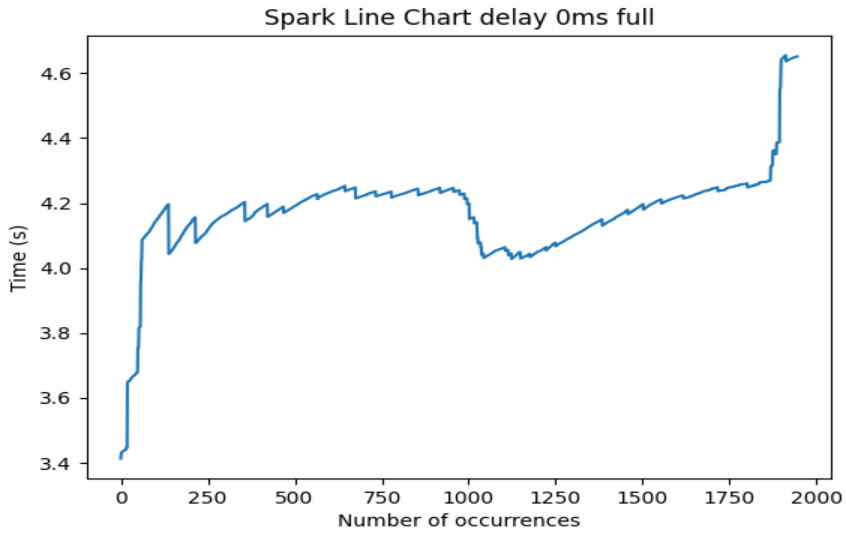
Spark mean

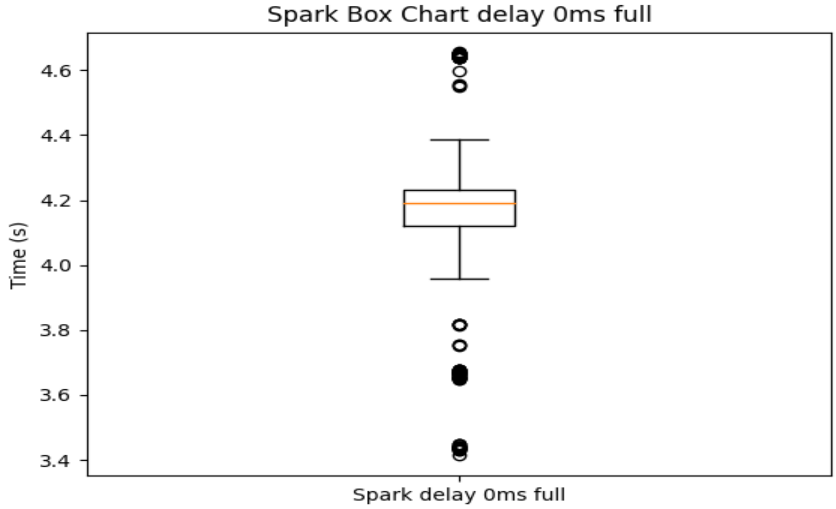
End Subtract Start: 4.171215784061697

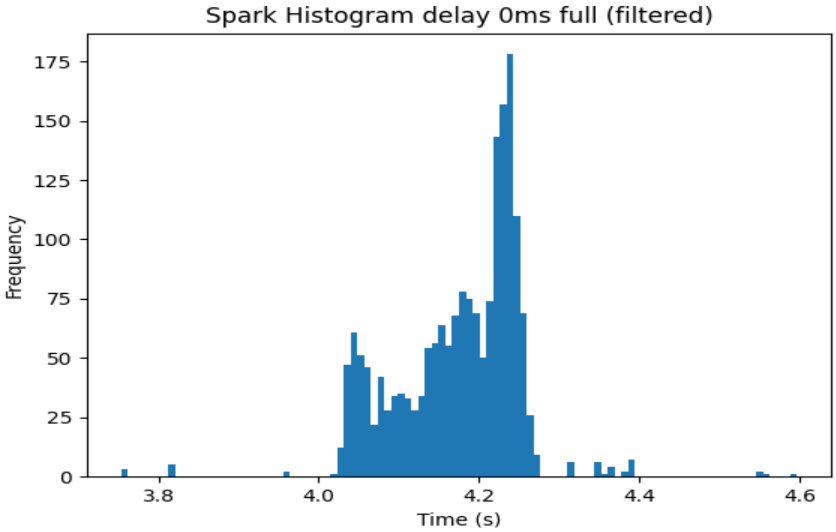
Average time for each sample

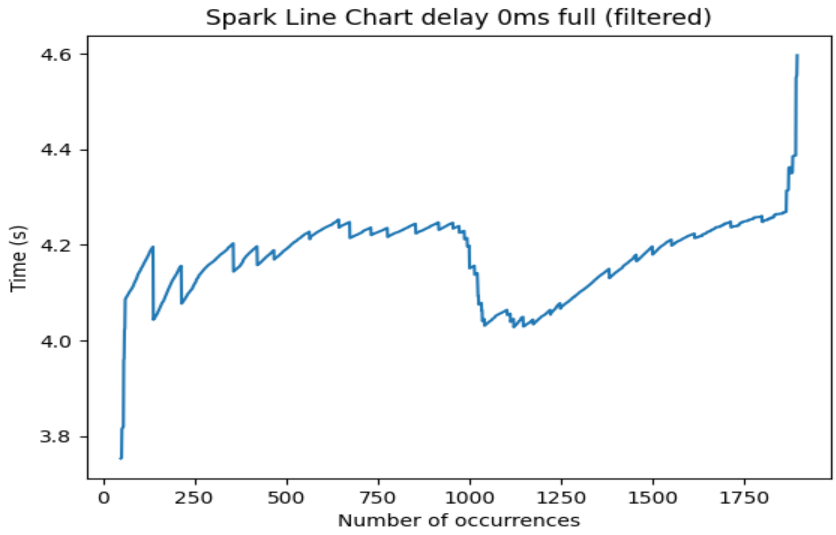
4.239238046272493 4.15458971722365 4.052502827763496
6.336243701799487 4.05229203084833 3.622385089974293
3.6071043701799486 4.086564524421594 3.564146015424164
3.997091516709512

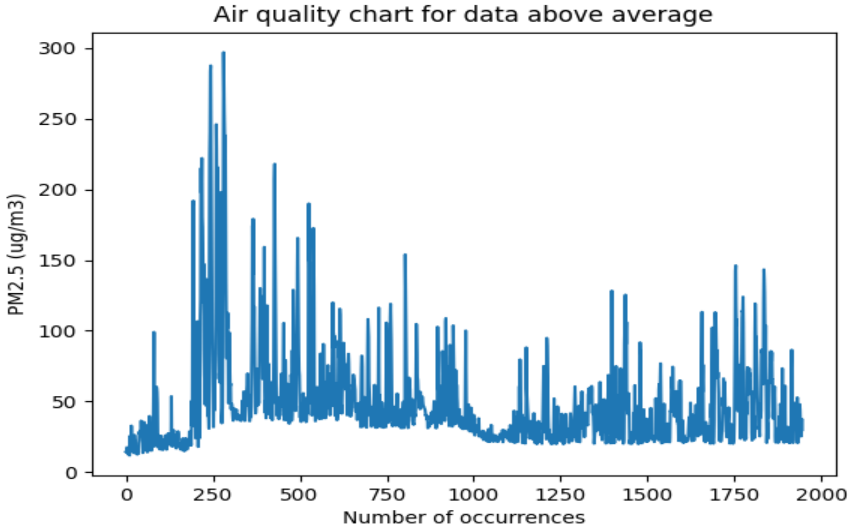

Spark Histogram delay 0ms full
Frequency
Time (s)
250
200
150
100
50
0
3.4
3.6
3.8
4.0
4.2
4.4
4.6

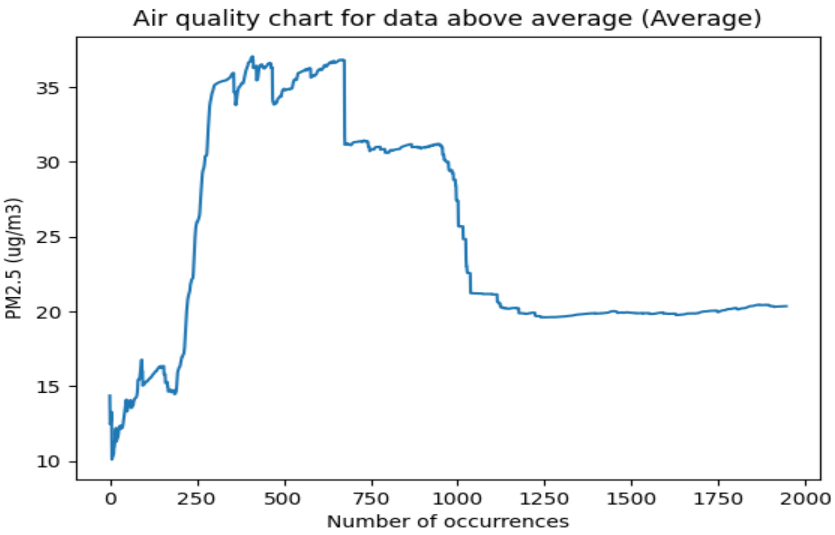

Spark Line Chart delay 0ms full
Time (s)
Number of occurrences
4.6
4.4
4.2
4.0
3.8
3.6
3.4
0
250
500
750
1000
1250
1500
1750
2000


Spark Box Chart delay 0ms full
Time (s)
Spark delay 0ms full
4.6
4.4
4.2
4.0
3.8
3.6
3.4


Spark Histogram delay 0ms full (filtered)
Frequency
Time (s)
0
25
50
75
100
125
150
175
3.8
4.0
4.2
4.4
4.6


Spark Line Chart delay 0ms full (filtered)
Time (s)
Number of occurrences
3.8
4.0
4.2
4.4
4.6
0
250
500
750
1000
1250
1500
1750


Air quality chart for data above average
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
250
500
750
1000
1250
1500
1750
2000


Air quality chart for data above average (Average)
PM2.5 (ug/m3)
35
30
25
20
15
10
0
250
500
750
1000
1250
1500
1750
2000
Number of occurrences

Spark test setup (sparkDelay0Half)

Technology: Spark Structured Streaming
Producer Delay (Send next message): 0ms
Full data set (qty): 4380
Processed values (qty): 1024
Number of tests performed: 10
Start: Timestamp from Producer
End: Timestamp from Consumer
Unit: The results are given in seconds

Spark median values

End Subtract Start: 3.94985

Spark standard deviation

End Subtract Start: 0.14170385228468327
Lower Bound: 3.49424859939595
Upper Bound: 4.344471713104049
Number of data in the std range: 1004
Number of data outside the std range: 20

Spark interquartile range

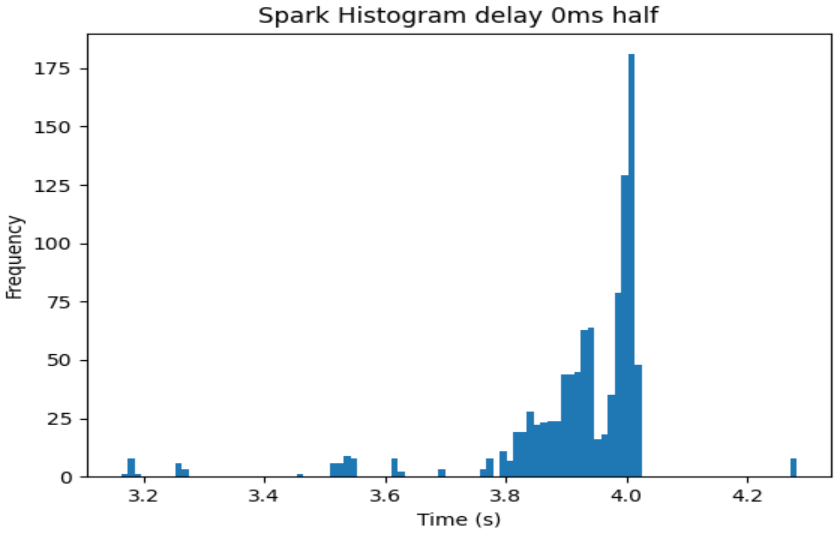
End Subtract Start: 0.10822499999999824

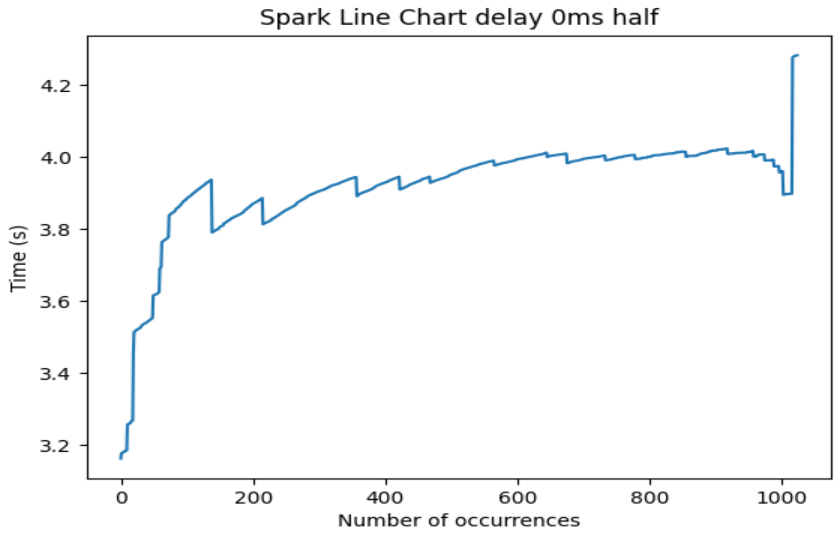
Spark mean

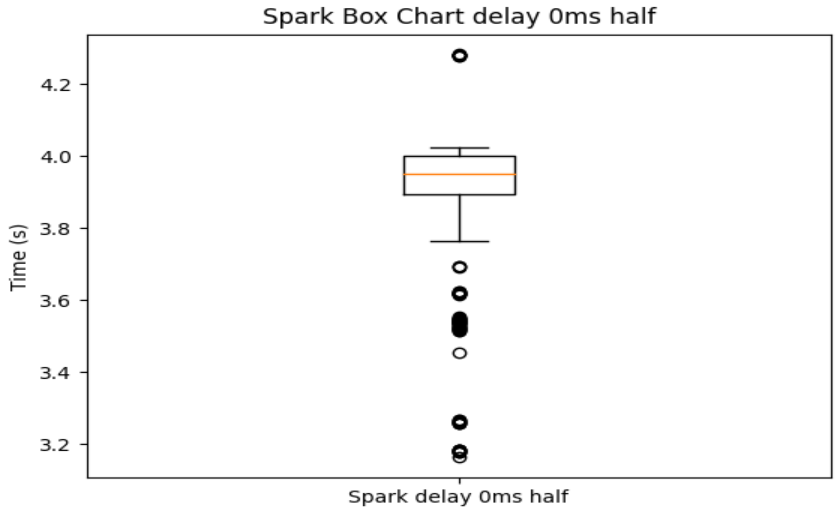
End Subtract Start: 3.91936015625

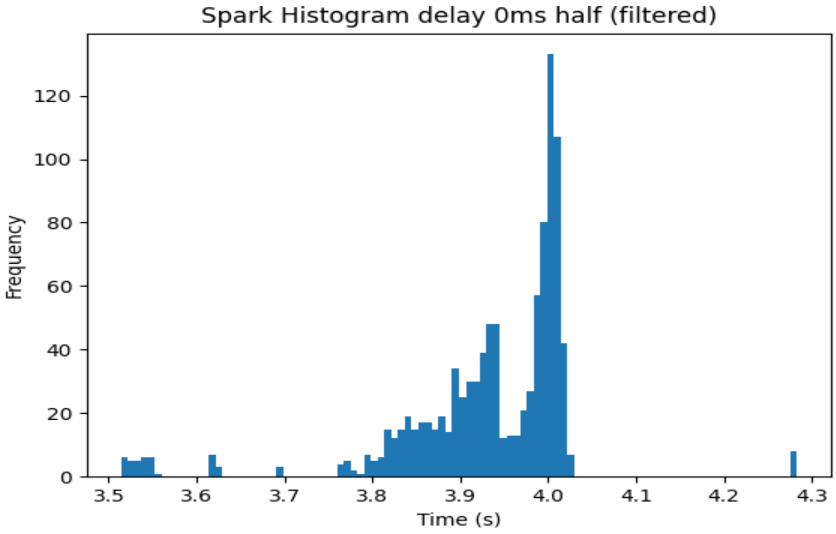
Average time for each sample

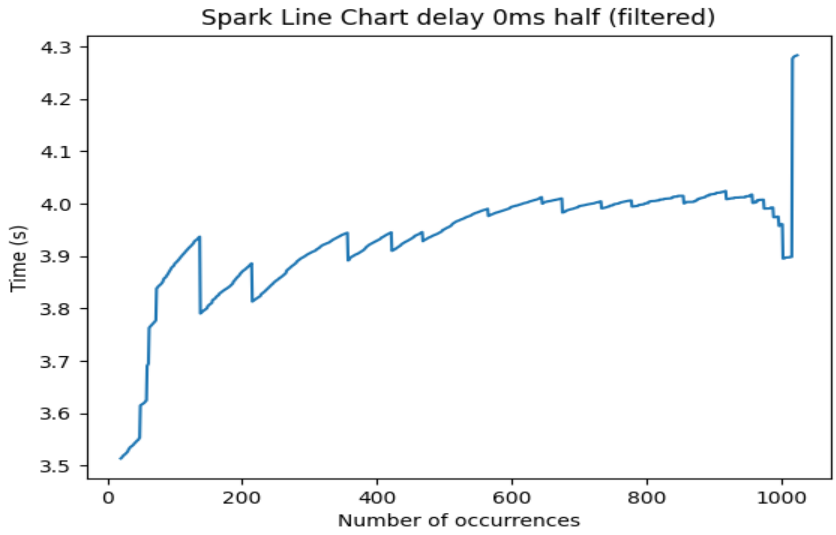
3.5744453125 4.3195087890625 4.4132939453125
3.4662197265625 3.7481044921875 4.057943359375
3.9085585937500005 3.9117783203124996 3.940142578125
3.8536064453125

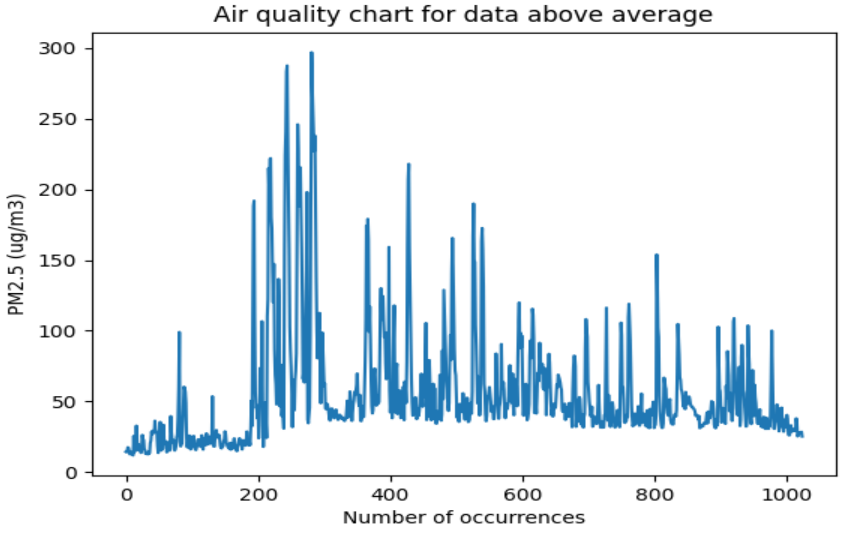

Spark Histogram delay 0ms half
Frequency
Time (s)
0
25
50
75
100
125
150
175
3.2
3.4
3.6
3.8
4.0
4.2

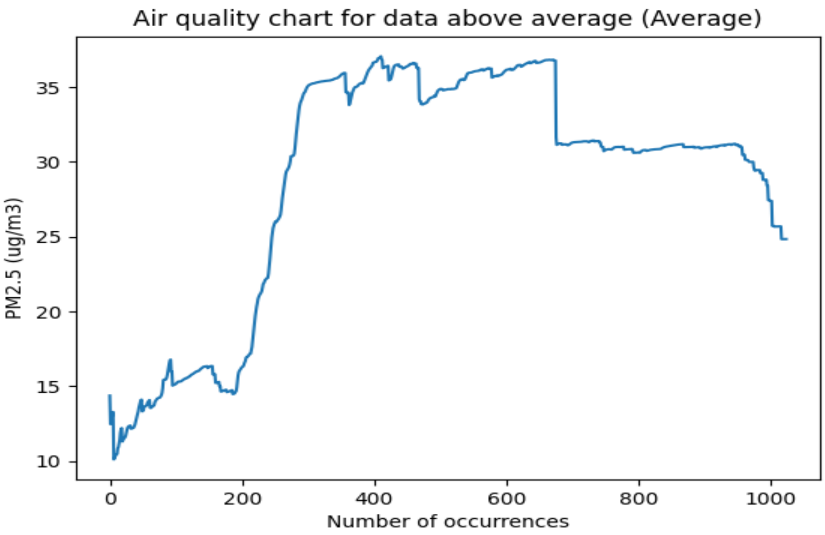

Spark Line Chart delay 0ms half
Time (s)
Number of occurrences
3.2
3.4
3.6
3.8
4.0
4.2
0
200
400
600
800
1000


Spark Box Chart delay 0ms half
Time (s)
Spark delay 0ms half
3.2
3.4
3.6
3.8
4.0
4.2


Spark Histogram delay 0ms half (filtered)
Frequency
Time (s)
0
20
40
60
80
100
120
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3


Spark Line Chart delay 0ms half (filtered)
Time (s)
Number of occurrences
3.5
3.6
3.7
3.8
3.9
4.0
4.1
4.2
4.3
0
200
400
600
800
1000


Air quality chart for data above average
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
200
400
600
800
1000


Air quality chart for data above average (Average)
PM2.5 (ug/m3)
10
15
20
25
30
35
0
200
400
600
800
1000
Number of occurrences