Kafka test setup (kafkaDelay3Full)

Technology: Kafka Streams
Producer Delay (Send next message): 3ms
Full data set (qty): 8760
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: 0.08430000000000001

Kafka standard deviation

End Subtract Start: 0.4334065710452378
Lower Bound: -1.1140790966973573
UpperBound: 1.4863603295740695
Number of data in the std range: 8469
Number of data outside the std range: 291

Kafka interquartile range

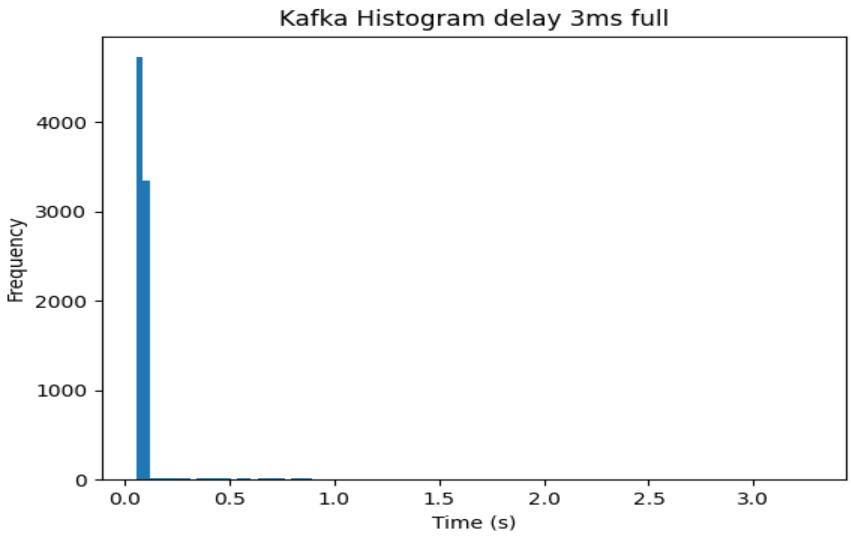
End Subtract Start: 0.01429999999999998

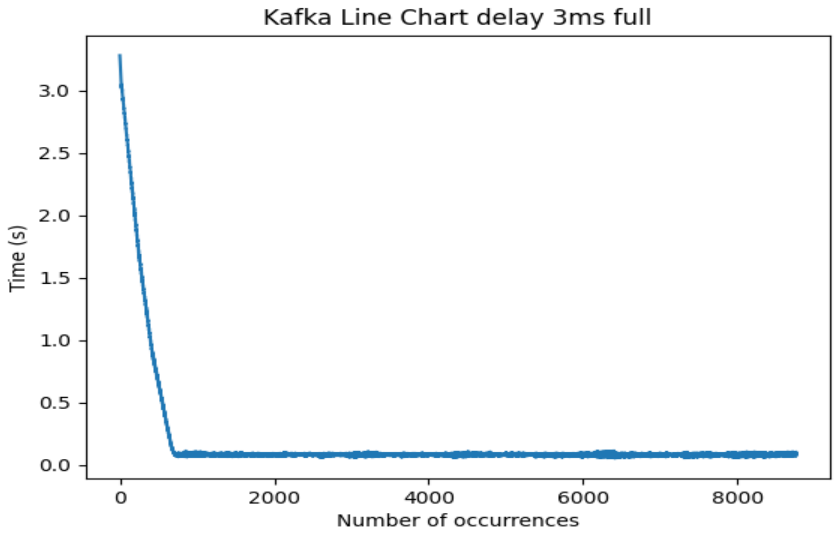
Kafka mean

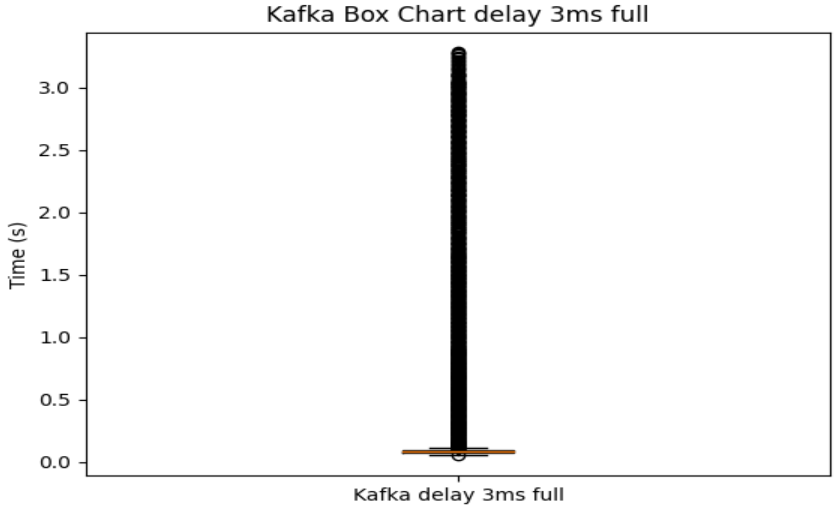
End Subtract Start: 0.1861406164383562

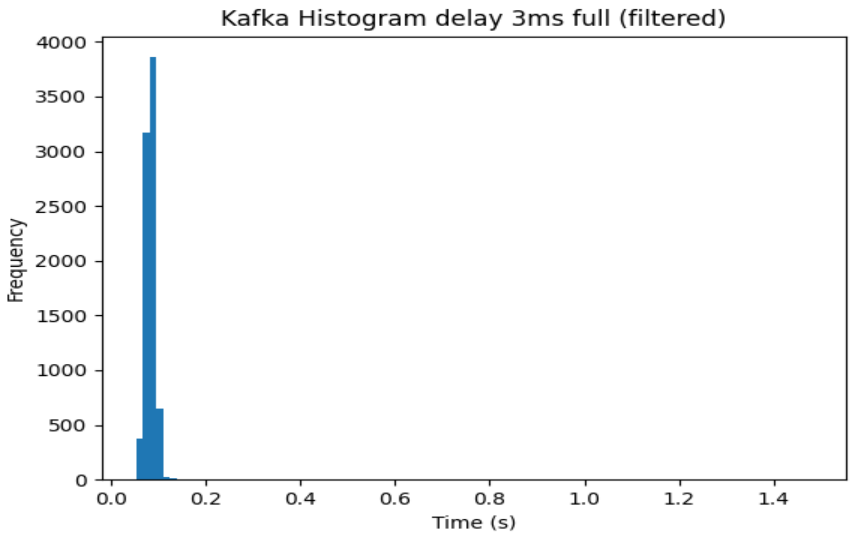
Average time for each sample

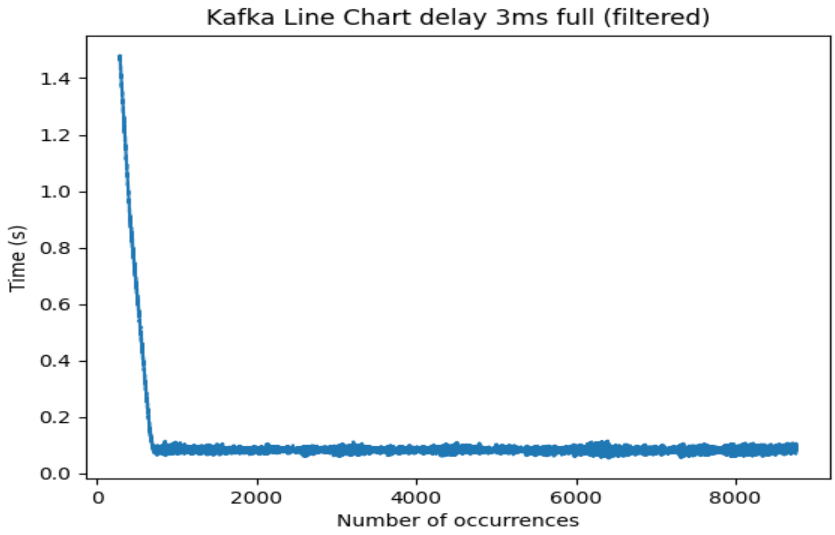
0.08846518264840185 0.08297694063926941 0.0831502283105023
0.23180753424657535 0.1351904109589041 0.08303333333333335
0.4684143835616438 0.0831480593607306 0.5222555936073059
0.08296449771689499

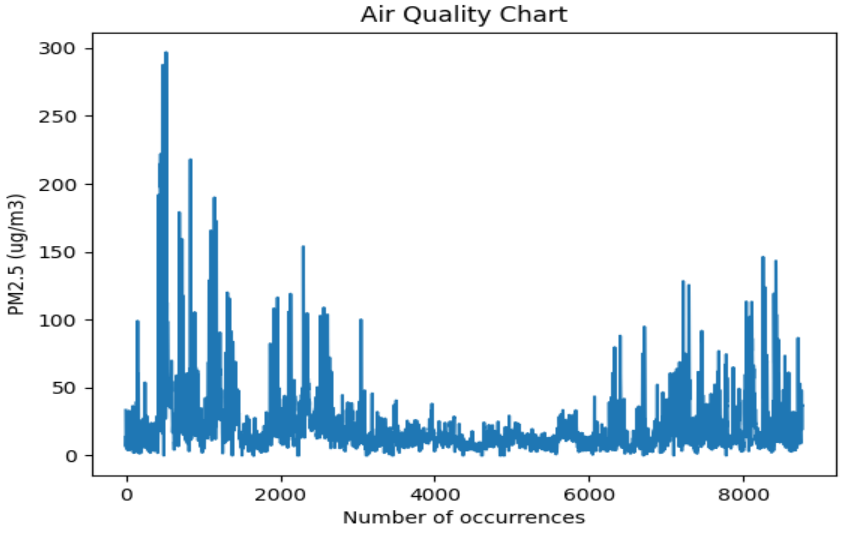

Kafka Histogram delay 3ms full
Frequency
Time (s)
0
1000
2000
3000
4000
0.0
0.5
1.0
1.5
2.0
2.5
3.0


Kafka Line Chart delay 3ms full
Time (s)
Number of occurrences
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0
2000
4000
6000
8000


Kafka Box Chart delay 3ms full
Time (s)
Kafka delay 3ms full
0.0
0.5
1.0
1.5
2.0
2.5
3.0


Kafka Histogram delay 3ms full (filtered)
Frequency
Time (s)
0
500
1000
1500
2000
2500
3000
3500
4000
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4


Kafka Line Chart delay 3ms full (filtered)
Time (s)
Number of occurrences
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
0
2000
4000
6000
8000


Air Quality Chart
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
2000
4000
6000
8000

Kafka test setup (kafkaDelay0Full)

Technology: Kafka Streams

Producer Delay (Send next message): 0ms

Full data set (qty): 8760

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: 3.7594

Kafka standard deviation

End Subtract Start: 0.7197608356887196

Lower Bound: 1.5878725043493667

Upper Bound: 5.906437518481685

Number of data in the std range: 8760

Number of data outside the std range: 0

Kafka interquartile range

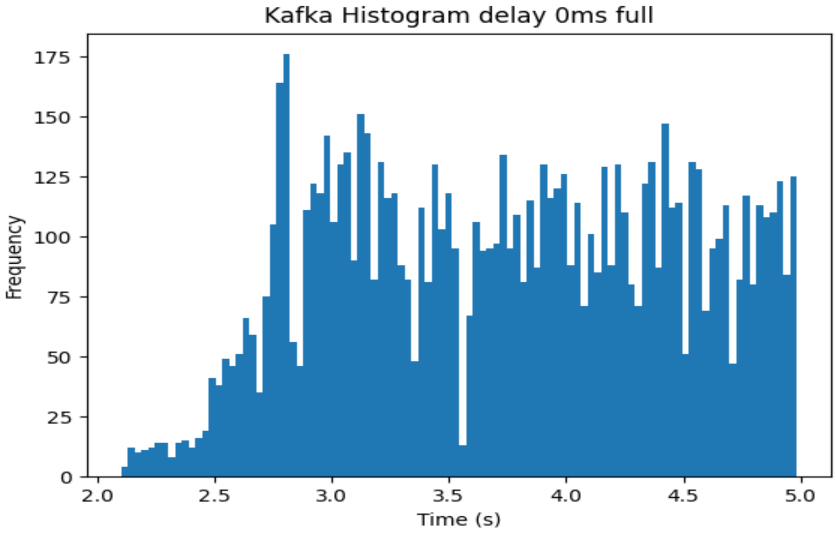
End Subtract Start: 1.250025

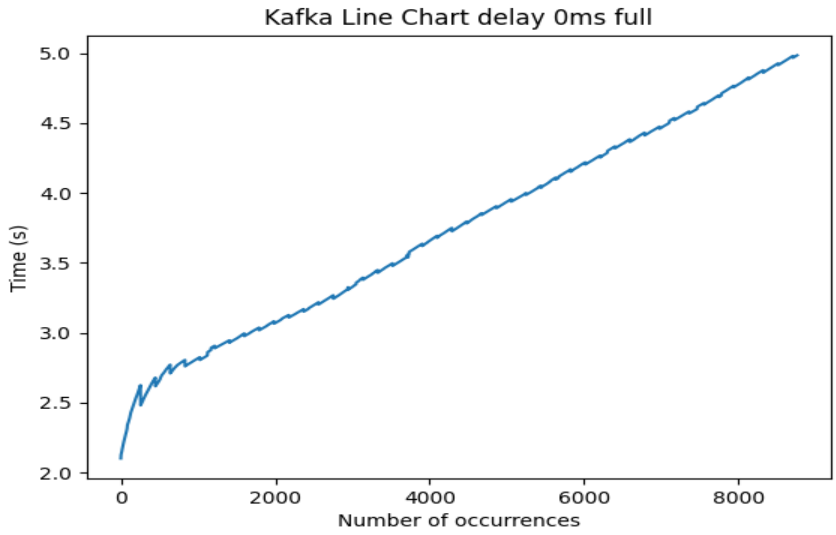
Kafka mean

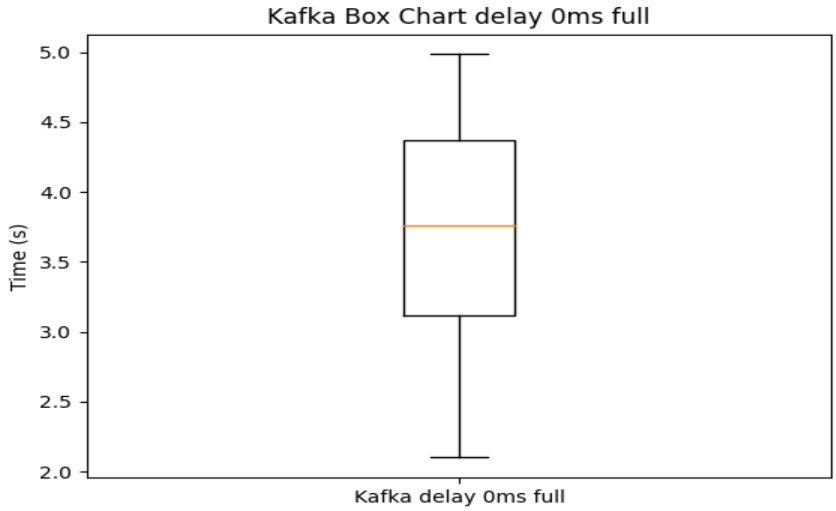
End Subtract Start: 3.7471550114155256

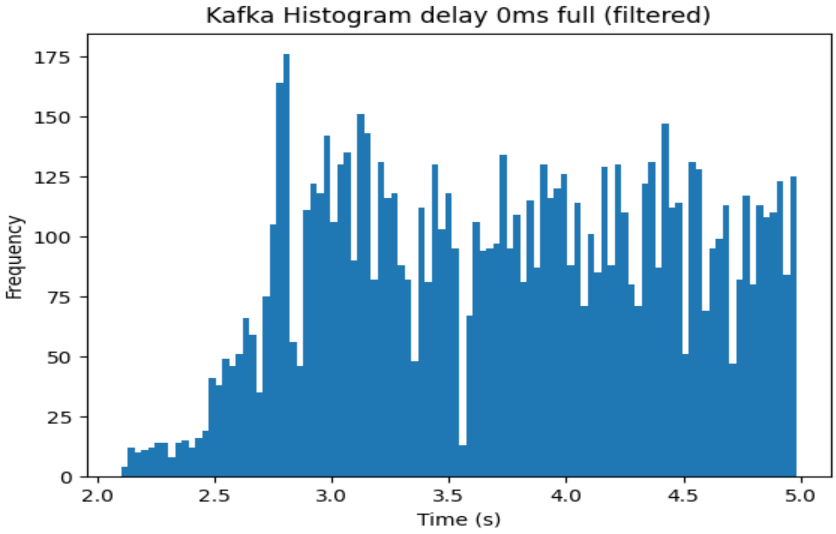
Average time for each sample

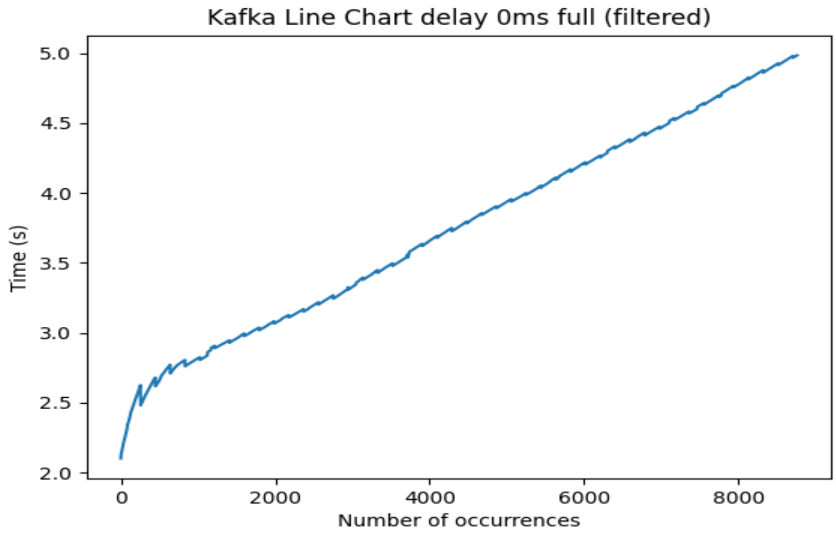
2.5296270547945205 1.9596102739726025 2.0990082191780823
3.2746164383561642 1.7555133561643836 2.646083105022831
3.370670319634703 2.1071792237442923 10.574156735159818
7.155085388127853

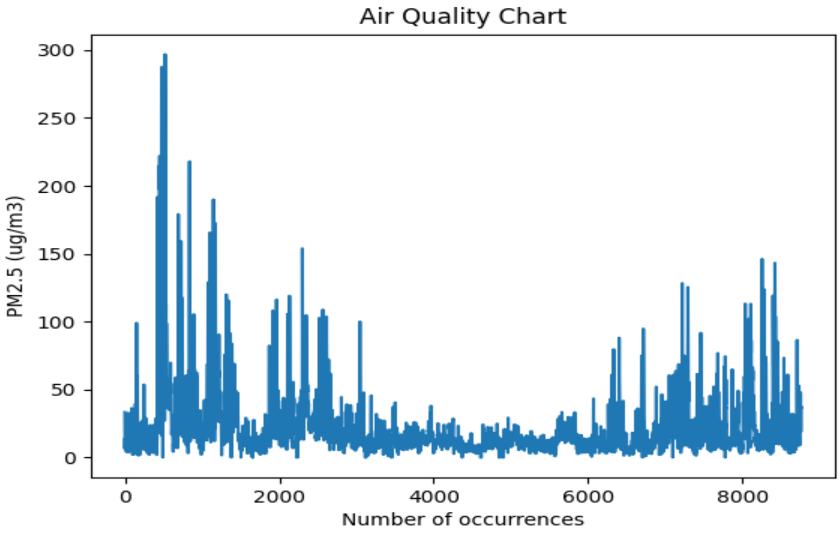

Kafka Histogram delay 0ms full
Frequency
Time (s)
0
25
50
75
100
125
150
175
2.0
2.5
3.0
3.5
4.0
4.5
5.0


Kafka Line Chart delay 0ms full
Time (s)
Number of occurrences
2.0
2.5
3.0
3.5
4.0
4.5
5.0
0
2000
4000
6000
8000


Kafka Box Chart delay 0ms full
Time (s)
2.0
2.5
3.0
3.5
4.0
4.5
5.0
Kafka delay 0ms full


Kafka Histogram delay 0ms full (filtered)
Frequency
Time (s)
0
25
50
75
100
125
150
175
2.0
2.5
3.0
3.5
4.0
4.5
5.0


Kafka Line Chart delay 0ms full (filtered)
Time (s)
Number of occurrences
2.0
2.5
3.0
3.5
4.0
4.5
5.0
0
2000
4000
6000
8000


Air Quality Chart
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
2000
4000
6000
8000

Kafka test setup (kafkaDelay0Half)

Technology: Kafka Streams

Producer Delay (Send next message): 0ms

Full data set (qty): 4380

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: 3.3966

Kafka standard deviation

End Subtract Start: 0.3818035575577879

Lower Bound: 2.347166861573212

Upper Bound: 4.637988206919939

Number of data in the std range: 4380

Number of data outside the std range: 0

Kafka interquartile range

End Subtract Start: 0.6668749999999997

Kafka mean

End Subtract Start: 3.4925775342465757

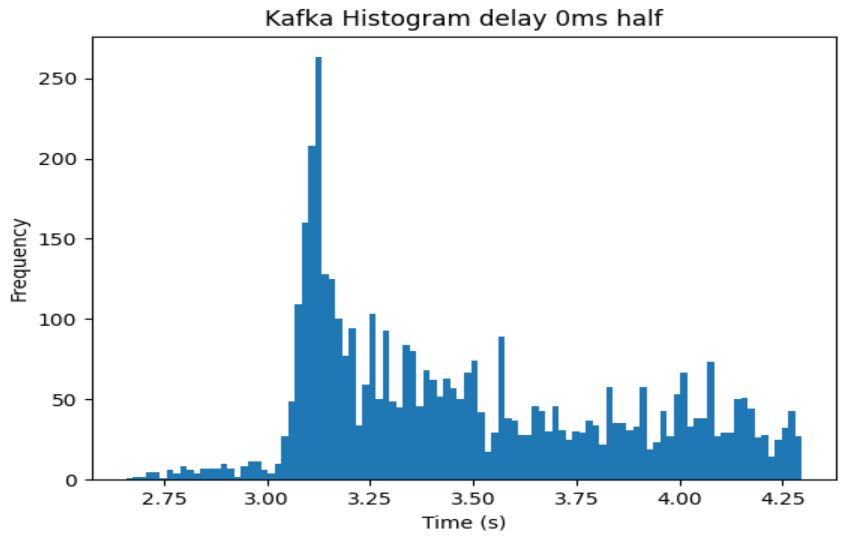
Average time for each sample

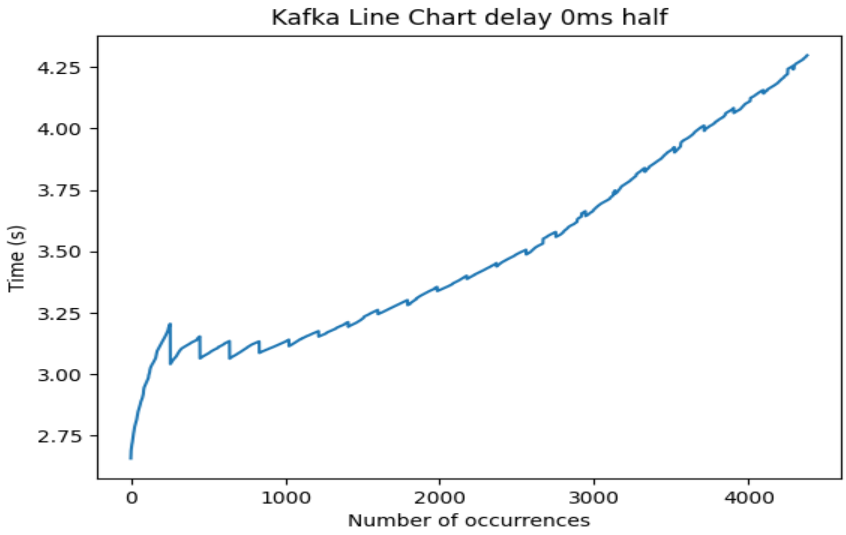
2.8113625570776257 1.148457077625571 1.1442707762557078

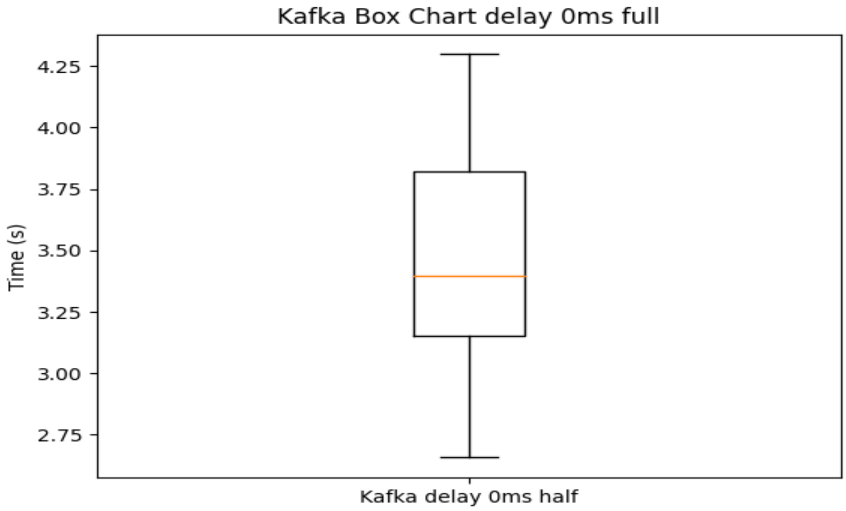
15.065976940639267 7.243599543378996 1.085281506849315

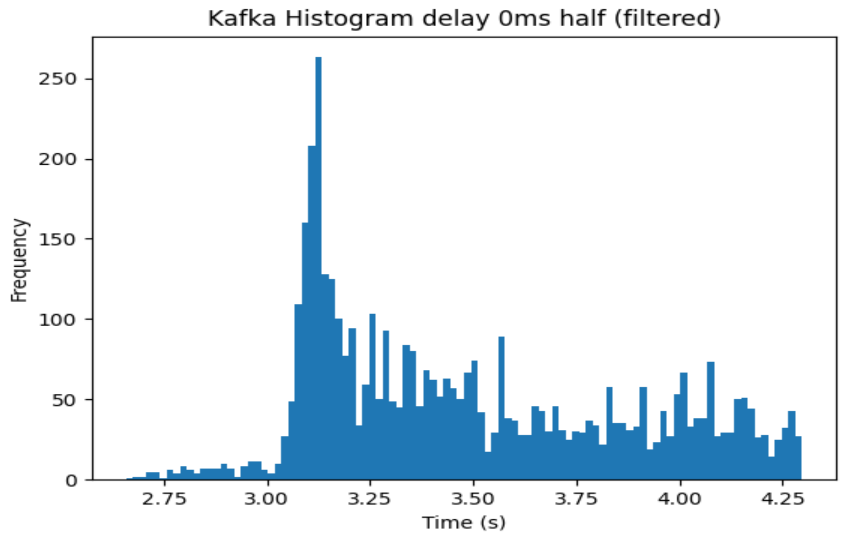
1.012836301369863 1.257685388127854 3.074339041095891

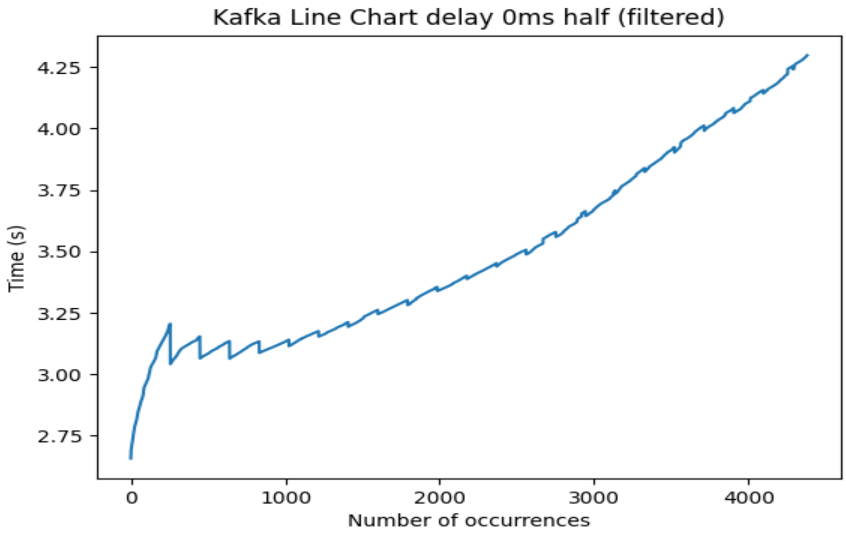
1.0819662100456622

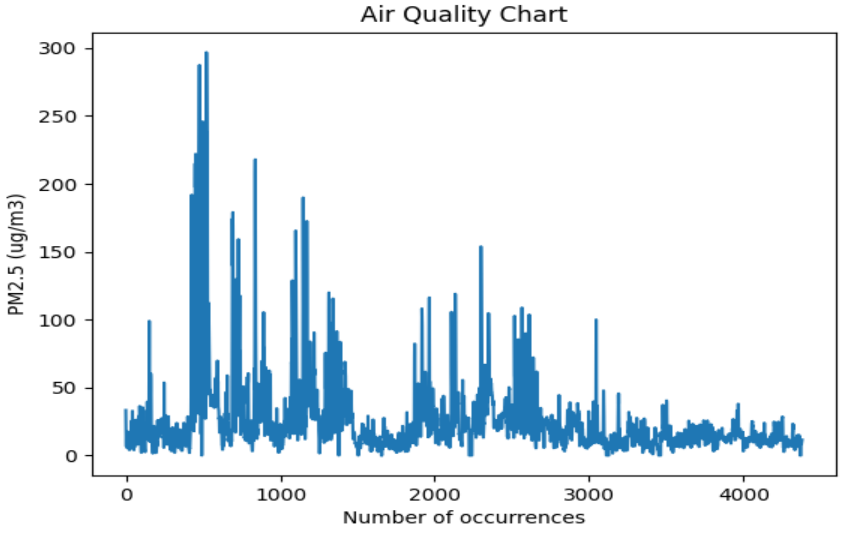

Kafka Histogram delay 0ms half
Frequency
Time (s)
0
50
100
150
200
250
2.75
3.00
3.25
3.50
3.75
4.00
4.25


Kafka Line Chart delay 0ms half
Time (s)
Number of occurrences
2.75
3.00
3.25
3.50
3.75
4.00
4.25
0
1000
2000
3000
4000


Kafka Box Chart delay 0ms full
Time (s)
2.75
3.00
3.25
3.50
3.75
4.00
4.25
Kafka delay 0ms half


Kafka Histogram delay 0ms half (filtered)
Frequency
Time (s)
0
50
100
150
200
250
2.75
3.00
3.25
3.50
3.75
4.00
4.25


Kafka Line Chart delay 0ms half (filtered)
Time (s)
Number of occurrences
2.75
3.00
3.25
3.50
3.75
4.00
4.25
0
1000
2000
3000
4000


Air Quality Chart
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
1000
2000
3000
4000

Spark test setup (sparkDelay3Full)

Technology: Spark Structured Streaming
Producer Delay (Send next message): 3ms
Full data set (qty): 8760
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: 0.7660499999999999

Spark standard deviation

End Subtract Start: 0.3439892246820013
Lower Bound: -0.20644130418299034
Upper Bound: 1.8574940439090177
Number of data in the std range: 8568
Number of data outside the std range: 192

Spark interquartile range

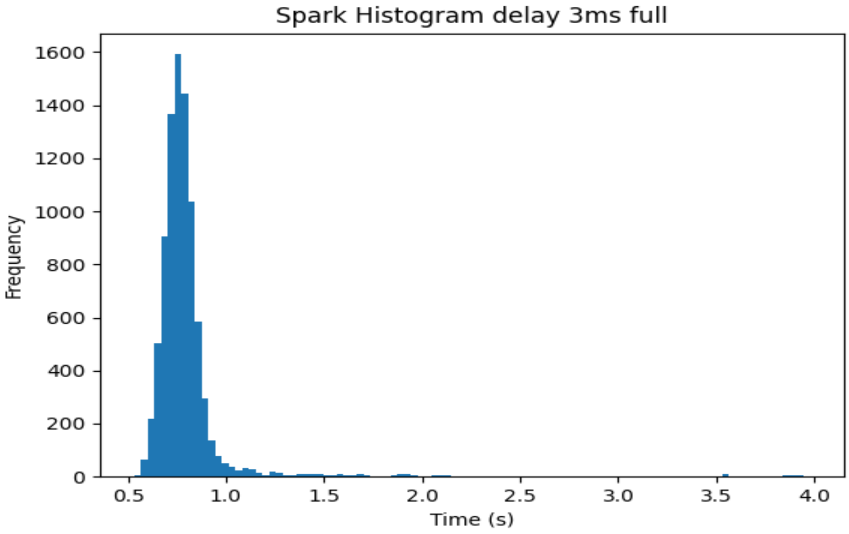
End Subtract Start: 0.10359999999999991

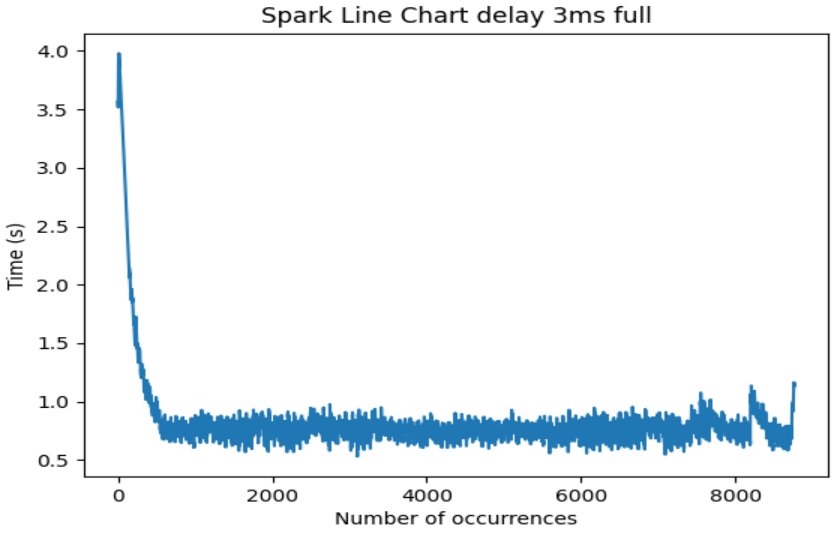
Spark mean

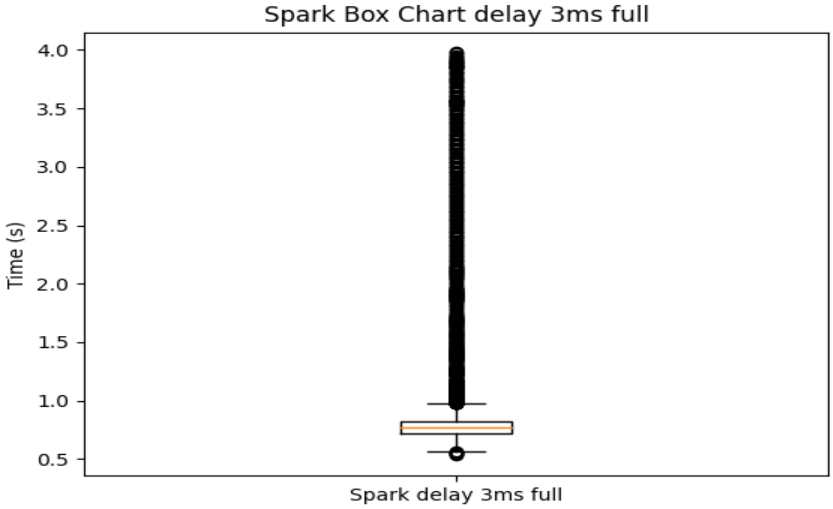
End Subtract Start: 0.8255263698630136

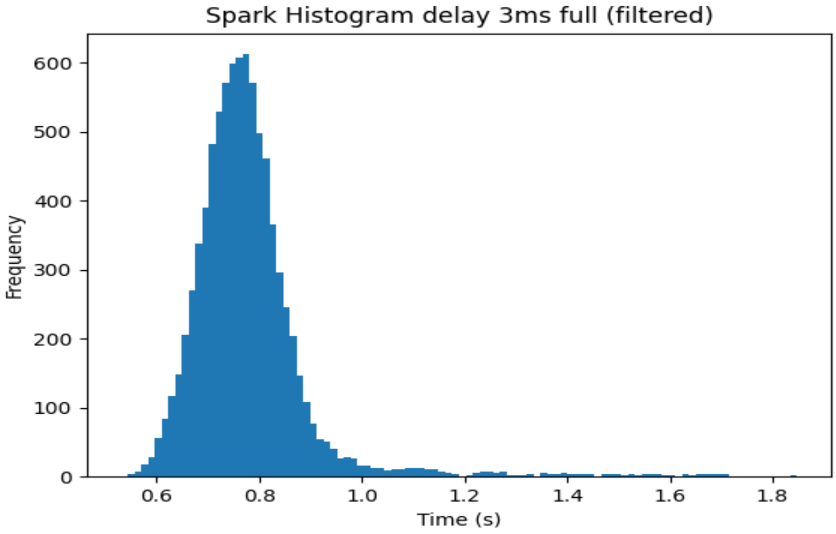
Average time for each sample

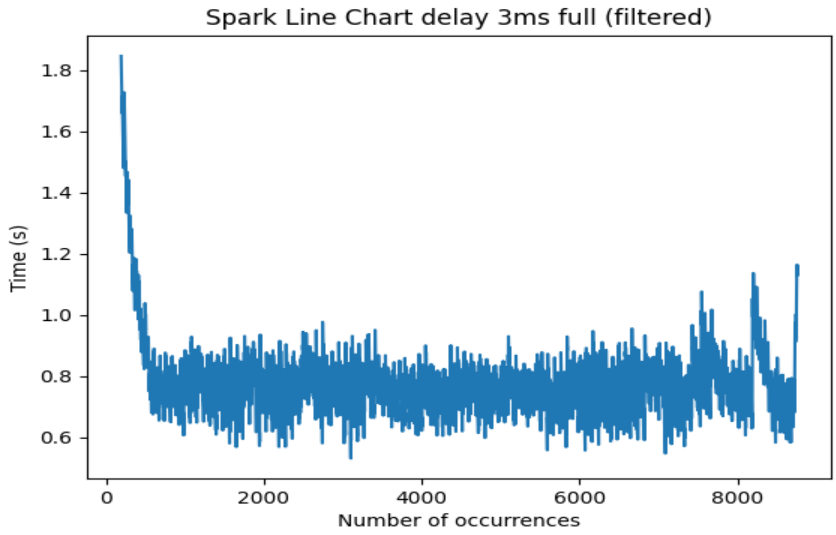
1.555434589041096 0.7010439497716896 0.7204858447488585
0.7087466894977169 0.6877687214611873 0.7220965753424656
0.7223592465753425 0.7522775114155251 0.9587325342465752
0.7263180365296804

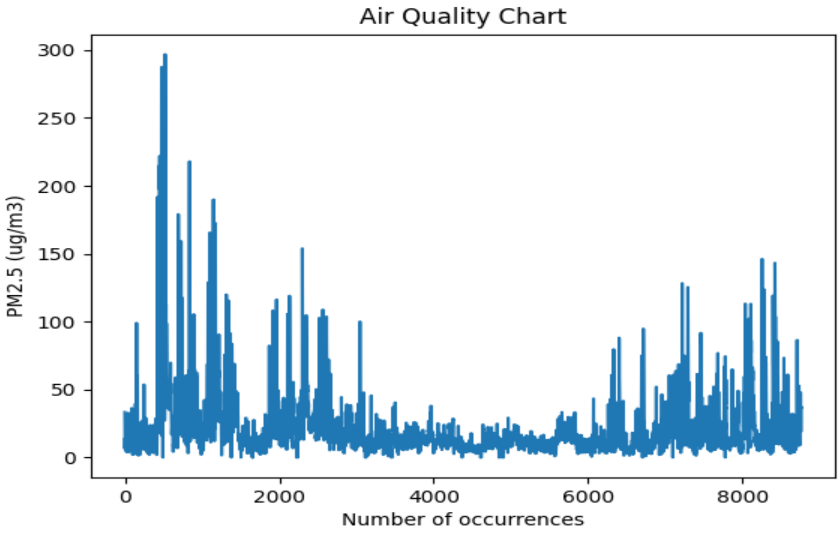

Spark Histogram delay 3ms full
Frequency
Time (s)
0
200
400
600
800
1000
1200
1400
1600
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0


Spark Line Chart delay 3ms full
Time (s)
Number of occurrences
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
2000
4000
6000
8000


Spark Box Chart delay 3ms full
Time (s)
Spark delay 3ms full
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0


Spark Histogram delay 3ms full (filtered)
Frequency
Time (s)
0
100
200
300
400
500
600
0.6
0.8
1.0
1.2
1.4
1.6
1.8


Spark Line Chart delay 3ms full (filtered)
Time (s)
Number of occurrences
0.6
0.8
1.0
1.2
1.4
1.6
1.8
0
2000
4000
6000
8000


Air Quality Chart
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
2000
4000
6000
8000

Spark test setup (sparkDelay0Full)

Technology: Spark Structured Streaming
Producer Delay (Send next message): 0ms
Full data set (qty): 8760
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: 5.4548000000000005

Spark standard deviation

End Subtract Start: 0.836640550318469
Lower Bound: 2.900631180094822
Upper Bound: 7.920474482005636
Number of data in the std range: 8760
Number of data outside the std range: 0

Spark interquartile range

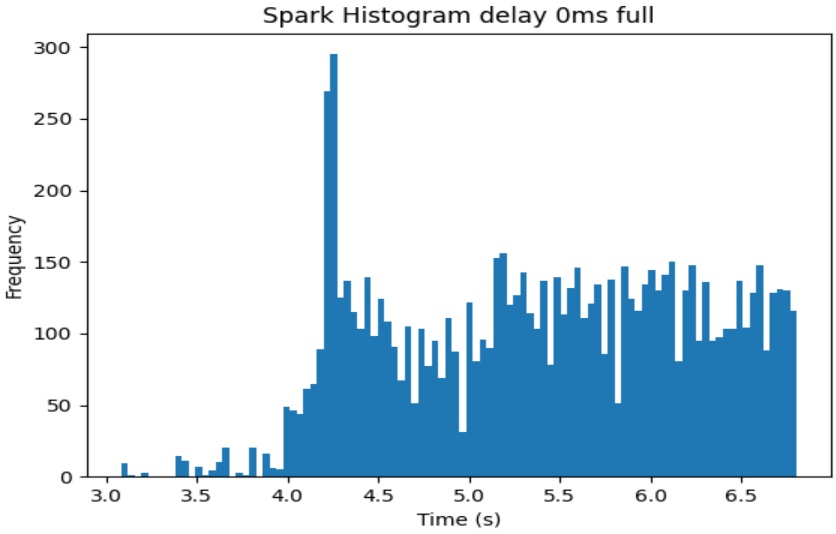
End Subtract Start: 1.4599000000000002

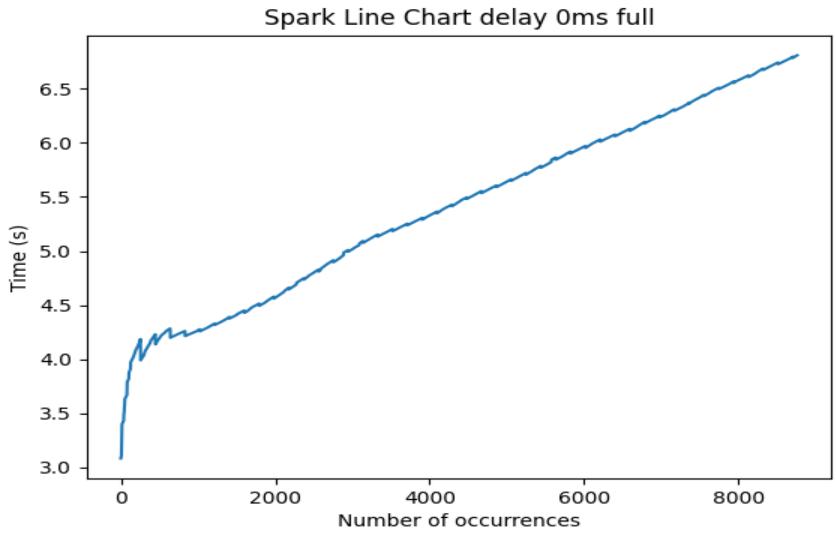
Spark mean

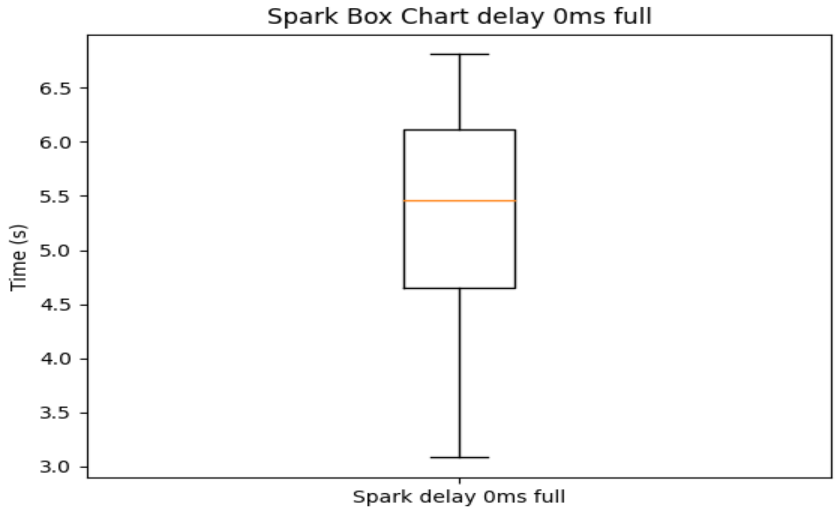
End Subtract Start: 5.410552831050229

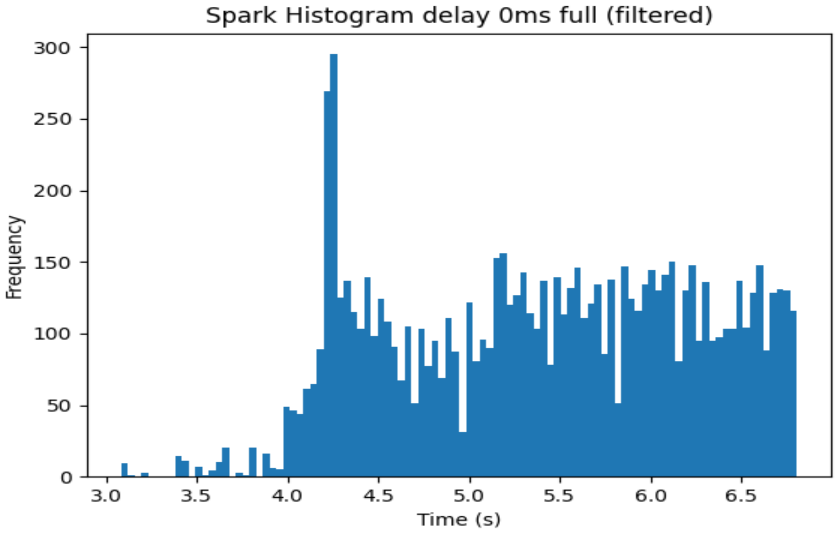
Average time for each sample

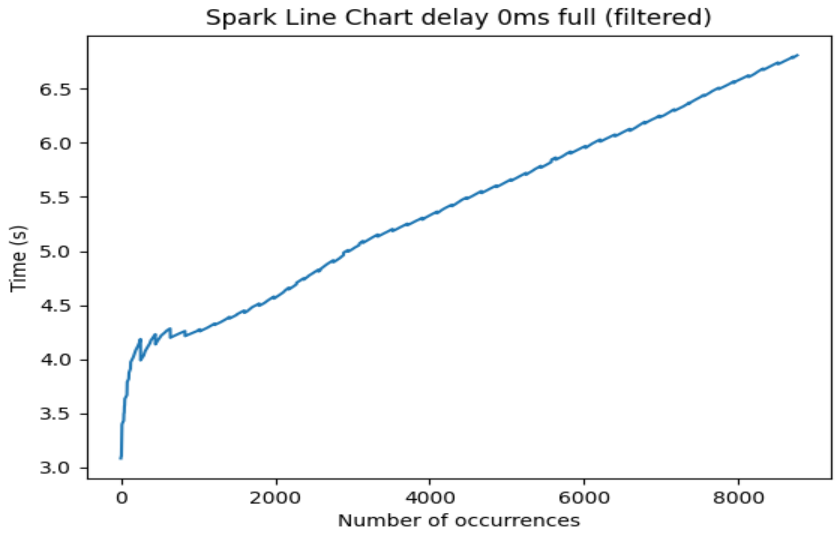
10.360887557077625 4.505659589041097 4.92744189497717
5.237693721461187 4.7533018264840186 5.167374429223745
4.451766324200913 4.443907876712328 4.8554695205479455
5.402025570776256

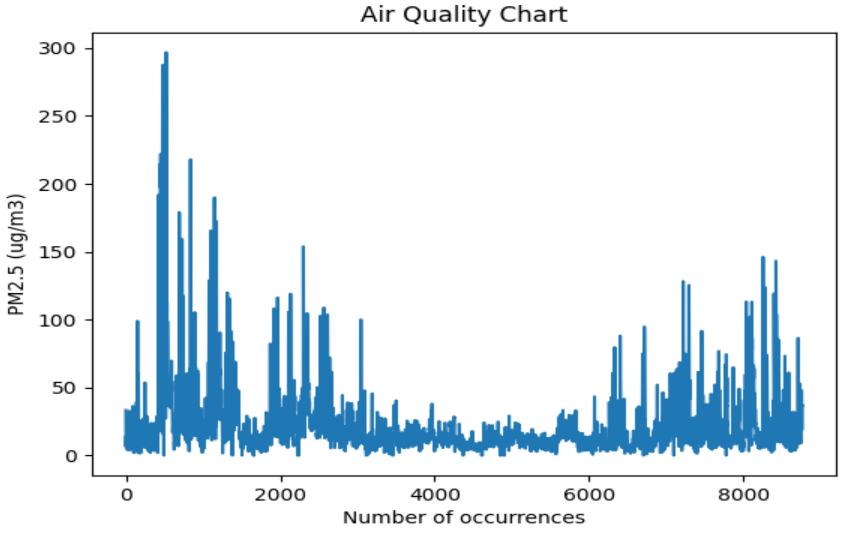

Spark Histogram delay 0ms full
Frequency
Time (s)
0
50
100
150
200
250
300
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5


Spark Line Chart delay 0ms full
Time (s)
Number of occurrences
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
0
2000
4000
6000
8000


Spark Box Chart delay 0ms full
Time (s)
Spark delay 0ms full
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5


Spark Histogram delay 0ms full (filtered)
Frequency
Time (s)
0
50
100
150
200
250
300
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5


Spark Line Chart delay 0ms full (filtered)
Time (s)
Number of occurrences
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
0
2000
4000
6000
8000


Air Quality Chart
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
2000
4000
6000
8000

Spark test setup (sparkDelay0Half)

Technology: Spark Structured Streaming
Producer Delay (Send next message): 0ms
Full data set (qty): 4380
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: 4.51445

Spark standard deviation

End Subtract Start: 0.45924119528811547
Lower Bound: 3.1773814369667037
Upper Bound: 5.932828608695397
Number of data in the std range: 4379
Number of data outside the std range: 1

Spark interquartile range

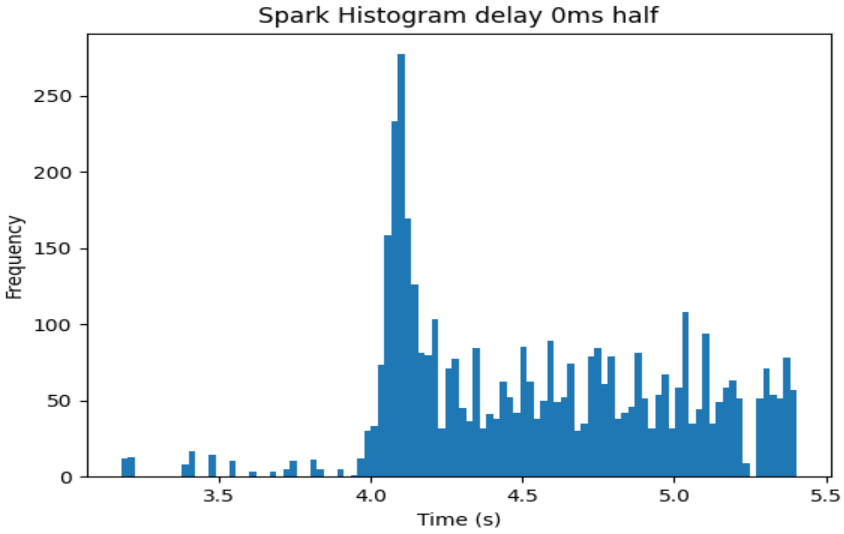
End Subtract Start: 0.8185250000000002

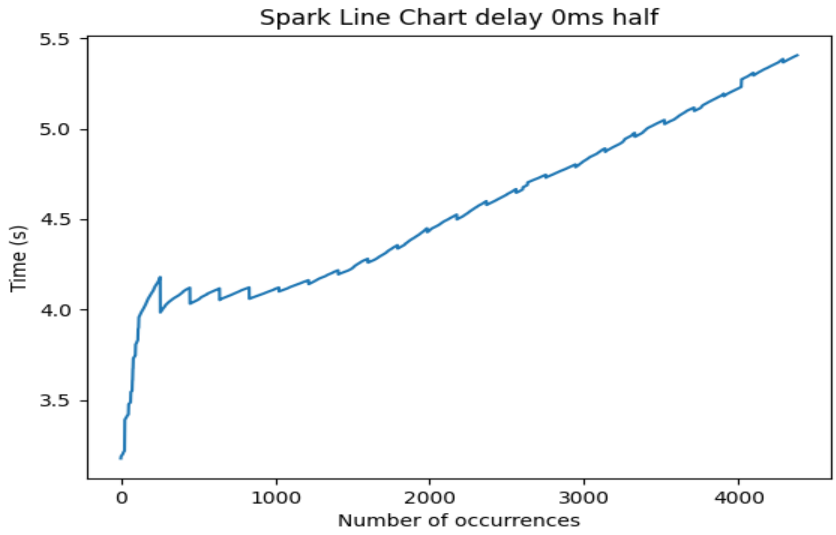
Spark mean

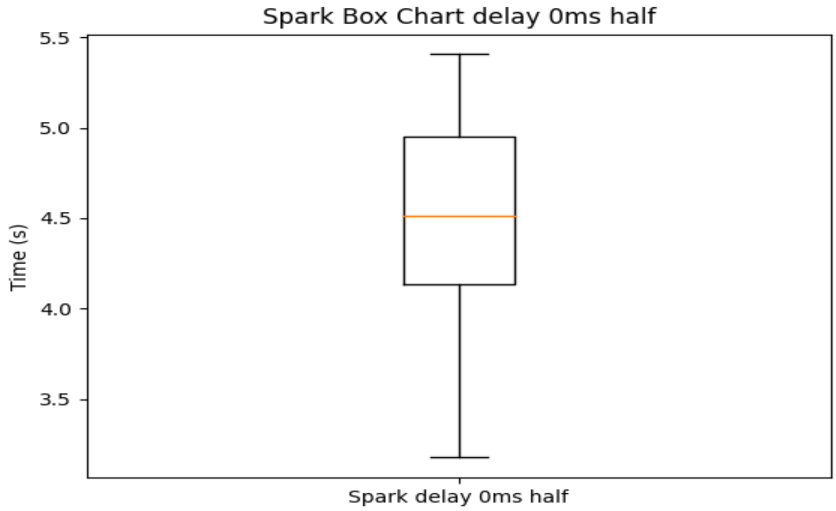
End Subtract Start: 4.55510502283105

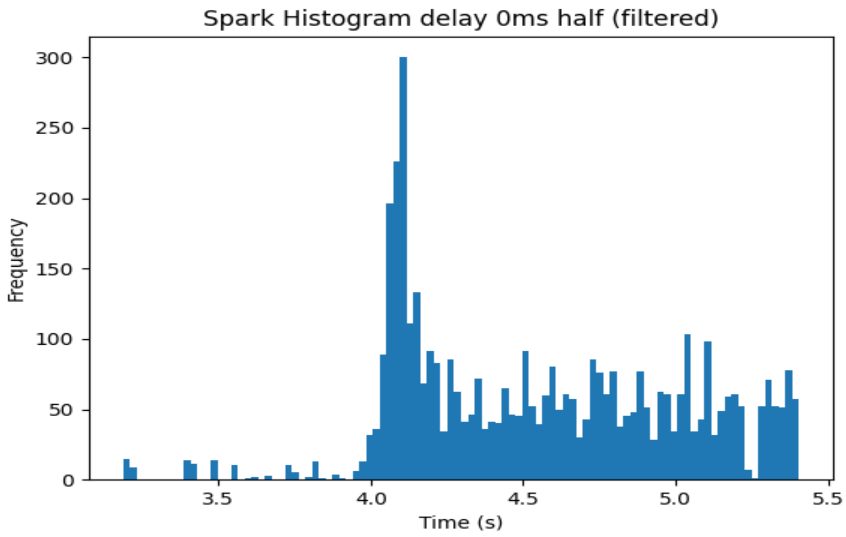
Average time for each sample

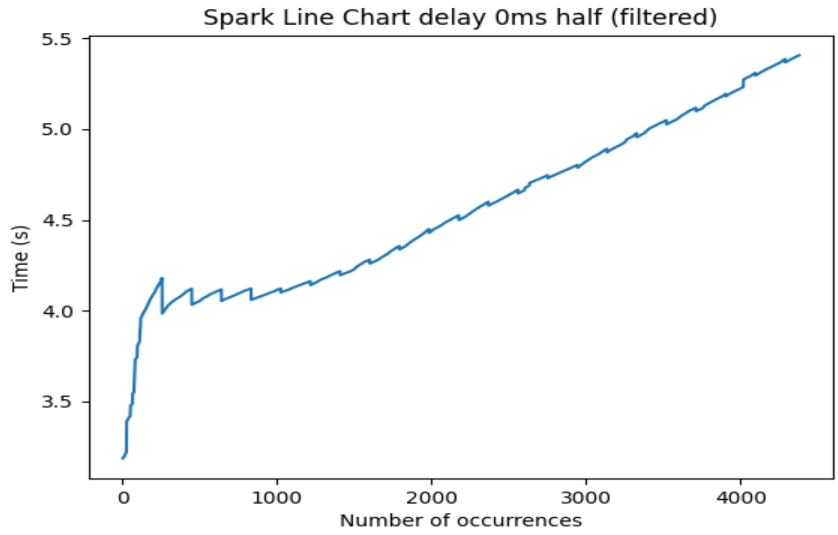
8.790803196347033 3.7517568493150684 4.1874315068493155
3.809788812785388 3.9458321917808226 3.665502739726028
3.558179452054795 3.8772066210045666 4.1042659817351606
5.860282876712329

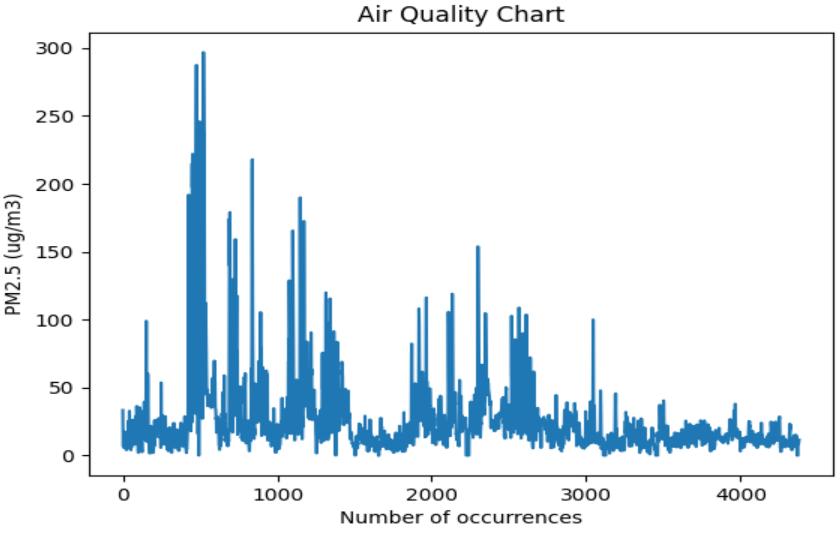

Spark Histogram delay 0ms half
Frequency
Time (s)
0
50
100
150
200
250
3.5
4.0
4.5
5.0
5.5


Spark Line Chart delay 0ms half
Time (s)
Number of occurrences
3.5
4.0
4.5
5.0
5.5
0
1000
2000
3000
4000


Spark Box Chart delay 0ms half
Time (s)
Spark delay 0ms half
3.5
4.0
4.5
5.0
5.5


Spark Histogram delay 0ms half (filtered)
Frequency
Time (s)
0
50
100
150
200
250
300
3.5
4.0
4.5
5.0
5.5


Spark Line Chart delay 0ms half (filtered)
Time (s)
Number of occurrences
3.5
4.0
4.5
5.0
5.5
0
1000
2000
3000
4000


Air Quality Chart
PM2.5 (ug/m3)
Number of occurrences
0
50
100
150
200
250
300
0
1000
2000
3000
4000