Multi-window Report

In this document you will find the results from training our Neural Network on the same dataset but re-organized in different ways.
All of the following results are classification reports on the test set, and with a threshold of 0.1

Definitions:
Window Size: The size of the window that the model will be engulfed in
Ratio: Ratio is the amount of non-flares to flares we will have

Window: 20

Ratio: 1:1

	precision	recall	f1-score	support
0	0.93	0.95	0.94	1136
1	0.95	0.93	0.94	1136
accuracy			0.94	2272
macro avg	0.94	0.94	0.94	2272
weighted avg	0.94	0.94	0.94	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.99	0.40	0.57	2272
1	0.45	0.99	0.62	1136
accuracy			0.60	3408
macro avg	0.72	0.70	0.60	3408
weighted avg	0.81	0.60	0.59	3408

Ratio 3:1

	precision	recall	f1-score	support
0	0.96	1.00	0.98	3408
1	1.00	0.87	0.93	1136
accuracy			0.97	4544
macro avg	0.98	0.93	0.95	4544
weighted avg	0.97	0.97	0.97	4544

Ratio 4:1

	precision	recall	f1-score	support
0	0.98	0.99	0.99	4544
1	0.97	0.93	0.95	1136
accuracy			0.98	5680
macro avg	0.98	0.96	0.97	5680
weighted avg	0.98	0.98	0.98	5680

Ratio 5:1

	precision	recall	f1-score	support
0	0.98	1.00	0.99	5680
1	0.98	0.92	0.95	1136
accuracy			0.98	6816
macro avg	0.98	0.96	0.97	6816
weighted avg	0.98	0.98	0.98	6816

Window: 30

Ratio 1:1

	precision	recall	f1-score	support
0	0.96	0.72	0.82	1136
1	0.78	0.97	0.86	1136
accuracy			0.85	2272
macro avg	0.87	0.85	0.84	2272
weighted avg	0.87	0.85	0.84	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.97	1.00	0.98	2272
1	0.99	0.94	0.97	1136
accuracy			0.98	3408
macro avg	0.98	0.97	0.97	3408
weighted avg	0.98	0.98	0.98	3408

Ratio 3:1

	precision	recall	f1-score	support
0	0.98	0.80	0.88	3408
1	0.61	0.95	0.75	1136
accuracy			0.84	4544
macro avg	0.80	0.88	0.81	4544
weighted avg	0.89	0.84	0.85	4544

Ratio 4:1

	precision	recall	f1-score	support
0	0.99	0.99	0.99	4544
1	0.97	0.95	0.96	1136
accuracy			0.98	5680
macro avg	0.98	0.97	0.98	5680
weighted avg	0.98	0.98	0.98	5680

Ratio 5:1

	precision	recall	f1-score	support
0	0.99	0.97	0.98	5680
1	0.85	0.97	0.91	1136
accuracy			0.97	6816
macro avg	0.92	0.97	0.94	6816
weighted avg	0.97	0.97	0.97	6816

Window: 50

Ratio 1:1

	precision	recall	f1-score	support
0	0.94	0.95	0.94	1136
1	0.95	0.94	0.94	1136
accuracy			0.94	2272
macro avg	0.94	0.94	0.94	2272
weighted avg	0.94	0.94	0.94	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.95	1.00	0.97	2272
1	1.00	0.89	0.94	1136
accuracy			0.96	3408
macro avg	0.97	0.95	0.96	3408
weighted avg	0.97	0.96	0.96	3408

Ratio 3:1

	precision	recall	f1-score	support
0	0.98	1.00	0.99	3408
1	0.99	0.95	0.97	1136
accuracy			0.98	4544
macro avg	0.98	0.97	0.98	4544
weighted avg	0.98	0.98	0.98	4544

Ratio 4:1

	precision	recall	f1-score	support
0	0.99	0.98	0.99	4544
1	0.93	0.96	0.94	1136
accuracy			0.98	5680
macro avg	0.96	0.97	0.96	5680
weighted avg	0.98	0.98	0.98	5680

Ratio 5:1

	precision	recall	f1-score	support
0	0.99	0.99	0.99	5680
1	0.97	0.94	0.95	1136
accuracy			0.98	6816
macro avg	0.98	0.97	0.97	6816
weighted avg	0.98	0.98	0.98	6816

Window 70:

Ratio 4:1 (THRESHHOLD 0.07)

	precision	recall	f1-score	support
0	0.99	1.00	0.99	4544
1	0.98	0.96	0.97	1136
accuracy			0.99	5680
macro avg	0.98	0.98	0.98	5680
weighted avg	0.99	0.99	0.99	5680

Ratio 5:1

	precision	recall	f1-score	support
0	1.00	0.98	0.99	5680
1	0.92	0.98	0.95	1136
accuracy			0.98	6816
macro avg	0.96	0.98	0.97	6816
weighted avg	0.98	0.98	0.98	6816

Window 80:

Ratio 1:1

	precision	recall	f1-score	support
0	0.97	0.32	0.48	1136
1	0.59	0.99	0.74	1136
accuracy			0.65	2272
macro avg	0.78	0.65	0.61	2272
weighted avg	0.78	0.65	0.61	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.98	0.97	0.97	2272
1	0.94	0.96	0.95	1136
accuracy			0.97	3408
macro avg	0.96	0.97	0.96	3408
weighted avg	0.97	0.97	0.97	3408

Ratio 3:1

	precision	recall	f1-score	support
0	0.99	0.97	0.98	3408
1	0.91	0.97	0.94	1136
accuracy			0.97	4544
macro avg	0.95	0.97	0.96	4544
weighted avg	0.97	0.97	0.97	4544

Ratio 4:1

	precision	recall	f1-score	support
0	0.99	1.00	0.99	4544
1	0.98	0.95	0.96	1136
accuracy			0.99	5680
macro avg	0.98	0.97	0.98	5680
weighted avg	0.99	0.99	0.99	5680

Ratio 5:1

	precision	recall	f1-score	support
0	0.99	1.00	0.99	5680
1	0.99	0.95	0.97	1136
accuracy			0.99	6816
macro avg	0.99	0.97	0.98	6816
weighted avg	0.99	0.99	0.99	6816

Window 100:

Ratio 1:1

	precision	recall	f1-score	support
0	0.92	1.00	0.96	1136
1	1.00	0.91	0.95	1136
accuracy			0.96	2272
macro avg	0.96	0.96	0.96	2272
weighted avg	0.96	0.96	0.96	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.96	1.00	0.98	2272
1	1.00	0.91	0.95	1136
accuracy			0.97	3408
macro avg	0.98	0.95	0.97	3408
weighted avg	0.97	0.97	0.97	3408

Ratio 3:1

	precision	recall	f1-score	support
0	0.98	1.00	0.99	3408
1	0.99	0.93	0.96	1136
accuracy			0.98	4544
macro avg	0.98	0.97	0.97	4544
weighted avg	0.98	0.98	0.98	4544

Ratio 4:1

	precision	recall	f1-score	support
0	0.99	0.95	0.97	4544
1	0.83	0.94	0.88	1136
accuracy			0.95	5680
macro avg	0.91	0.95	0.92	5680
weighted avg	0.95	0.95	0.95	5680

Ratio 5:1

	precision	recall	f1-score	support
0	0.99	0.99	0.99	5680
1	0.97	0.95	0.96	1136
accuracy			0.99	6816
macro avg	0.98	0.97	0.97	6816
weighted avg	0.99	0.99	0.99	6816

Window: 120:

Ratio 1:1

	precision	recall	f1-score	support
0	0.95	0.78	0.86	1136
1	0.81	0.96	0.88	1136
accuracy			0.87	2272
macro avg	0.88	0.87	0.87	2272
weighted avg	0.88	0.87	0.87	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.98	0.96	0.97	2272
1	0.93	0.96	0.94	1136
accuracy			0.96	3408
macro avg	0.95	0.96	0.96	3408
weighted avg	0.96	0.96	0.96	3408

Ratio 3:1

```
              precision    recall  f1-score   support

           0       0.99      0.99      0.99      3408
           1       0.97      0.97      0.97      1136

    accuracy                           0.98      4544
   macro avg       0.98      0.98      0.98      4544
weighted avg       0.98      0.98      0.98      4544
```

Ratio 4:1

```
              precision    recall  f1-score   support

           0       0.99      0.99      0.99      4544
           1       0.97      0.95      0.96      1136

    accuracy                           0.98      5680
   macro avg       0.98      0.97      0.97      5680
weighted avg       0.98      0.98      0.98      5680
```

Ratio 5:1

```
              precision    recall  f1-score   support

           0       0.99      0.99      0.99      5680
           1       0.94      0.94      0.94      1136

    accuracy                           0.98      6816
   macro avg       0.96      0.96      0.96      6816
weighted avg       0.98      0.98      0.98      6816
```

Window: 150

Ratio 1:1

	precision	recall	f1-score	support
0	0.97	0.85	0.91	1136
1	0.87	0.97	0.92	1136
accuracy			0.91	2272
macro avg	0.92	0.91	0.91	2272
weighted avg	0.92	0.91	0.91	2272

Ratio 2:1

	precision	recall	f1-score	support
0	0.98	0.91	0.94	2272
1	0.84	0.97	0.90	1136
accuracy			0.93	3408
macro avg	0.91	0.94	0.92	3408
weighted avg	0.93	0.93	0.93	3408

Ratio 3:1

	precision	recall	f1-score	support
0	0.99	0.98	0.99	3408
1	0.95	0.97	0.96	1136
accuracy			0.98	4544
macro avg	0.97	0.98	0.97	4544
weighted avg	0.98	0.98	0.98	4544

Ratio 4:1

	precision	recall	f1-score	support
0	0.99	0.99	0.99	4544
1	0.96	0.97	0.97	1136
accuracy			0.99	5680
macro avg	0.98	0.98	0.98	5680
weighted avg	0.99	0.99	0.99	5680

Ratio 5:1

	precision	recall	f1-score	support
0	0.99	1.00	0.99	5680
1	0.99	0.96	0.97	1136
accuracy			0.99	6816
macro avg	0.99	0.98	0.98	6816
weighted avg	0.99	0.99	0.99	6816