



Scaling to median and IQR

Robust Scaling

$$X_{\text{scaled}} = \frac{X - \text{median}(X)}{75\text{th quant}(X) - 25\text{th quant}(X)}$$

Robust Scaling: example

Price
100
90
50
40
20
100
50
60
120
40
200

Median = 60
25th quantile = 45
75th quantile = 100
IQR = 100 – 45 = 55



Obs. - Median

IQR

Price
0.73
0.55
-0.18
-0.36
-0.73
0.73
-0.18
0.00
1.09
-0.36
2.55

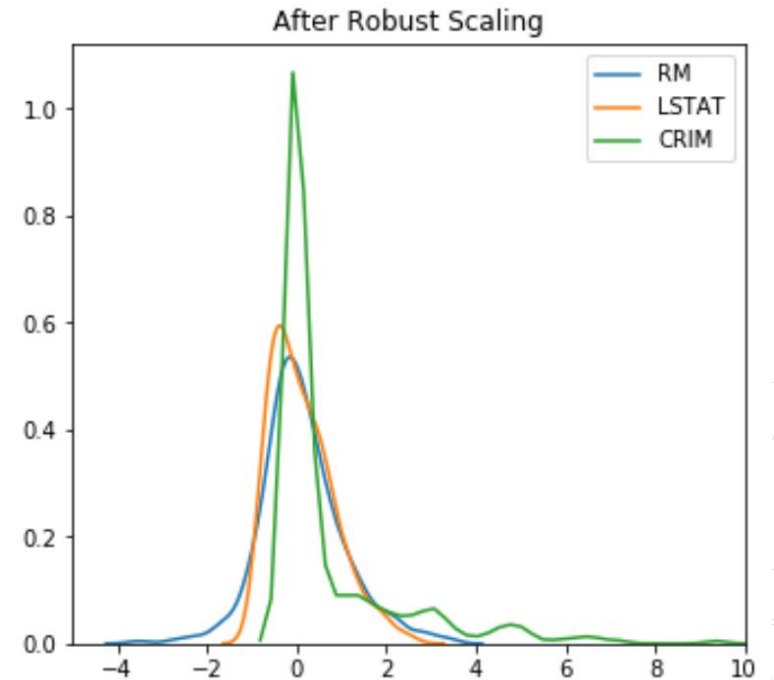
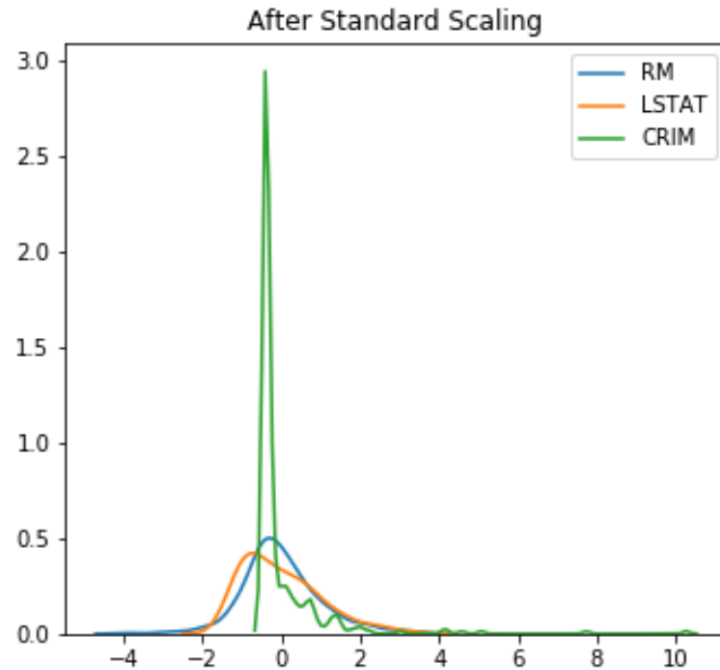
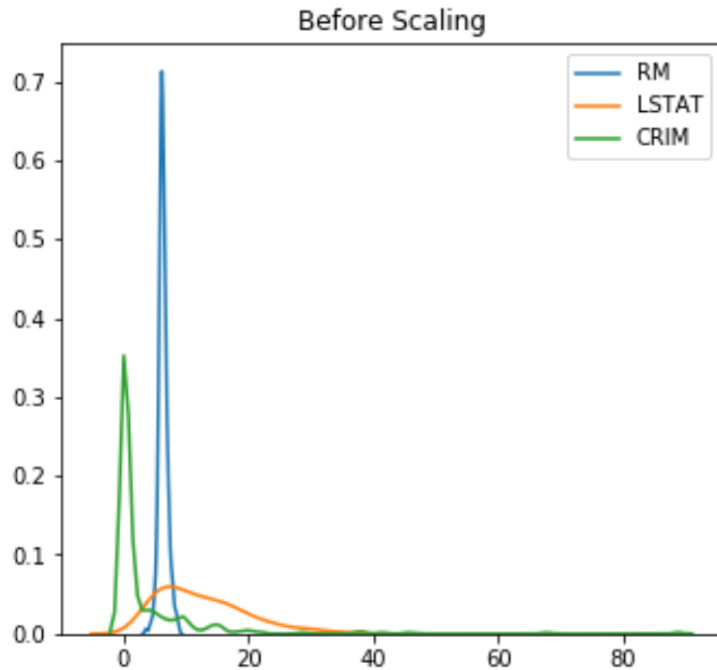


Robust Scaling: summary

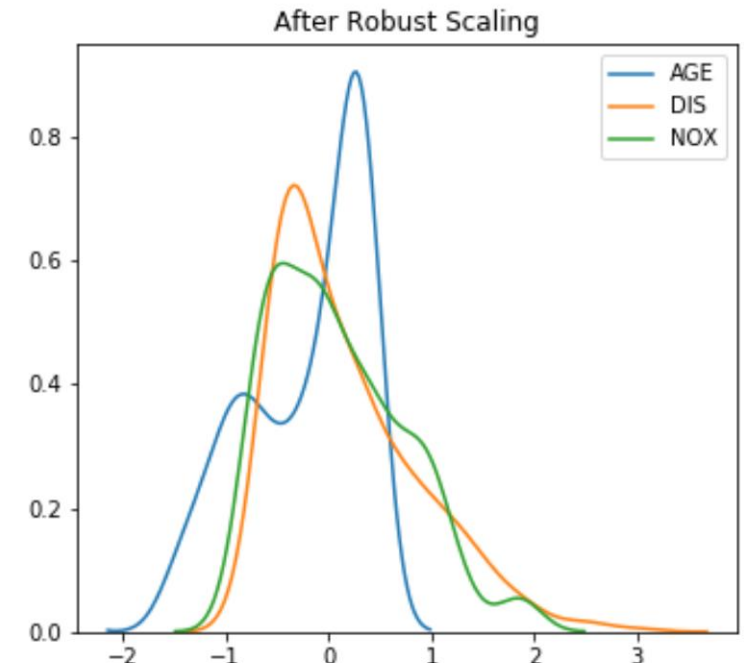
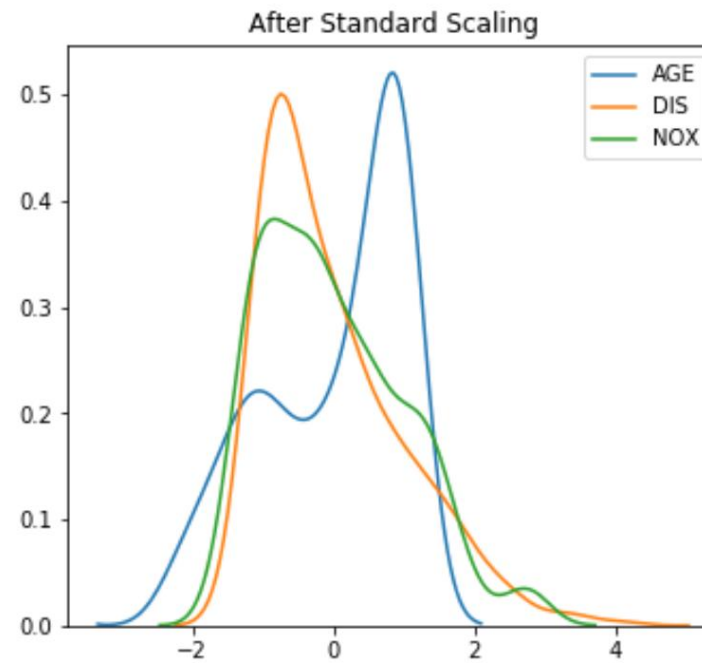
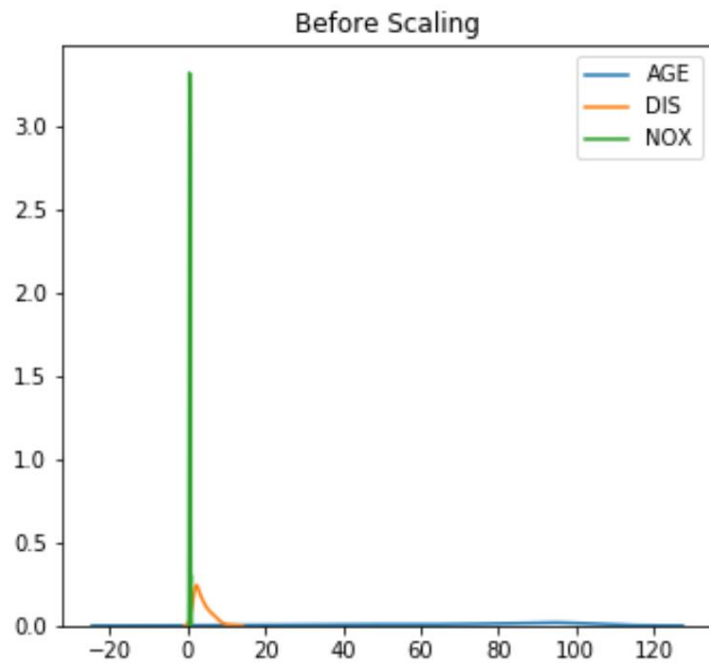
- Median centred at zero
- Handles outliers



Robust Scaling: Notebook



Robust Scaling: Notebook



Accompanying Jupyter Notebook



- Read the accompanying Jupyter Notebook
- Robust Scaling with Scikit-learn

THANK YOU

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