Train In Data

Min-Max Scaling

MinMaxScaling

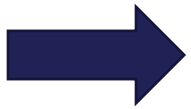
- Scales the variable between 0 and 1

$$X\_scaled = \frac{X - min(X)}{max(X) - \min(X)}$$

MinMaxScaling: example

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

Max = 200
Min = 20
Range = 200 – 20 = 180



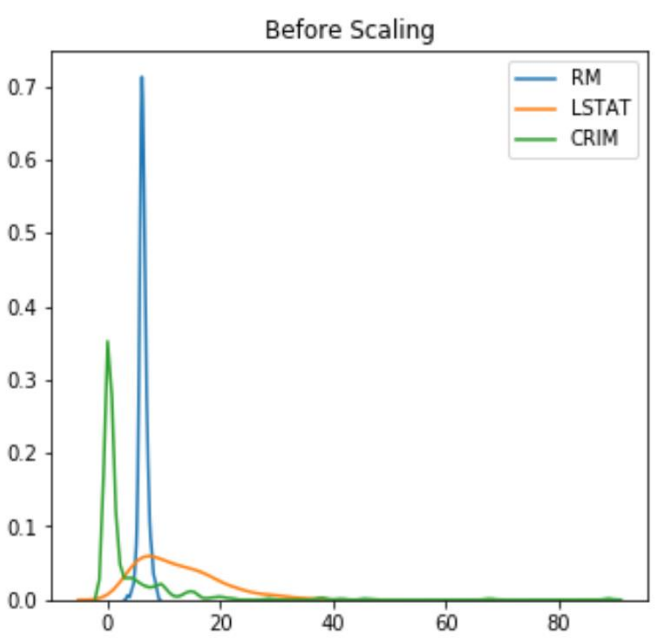
$$\frac{\text{Obs. - Min}}{\text{Range}}$$

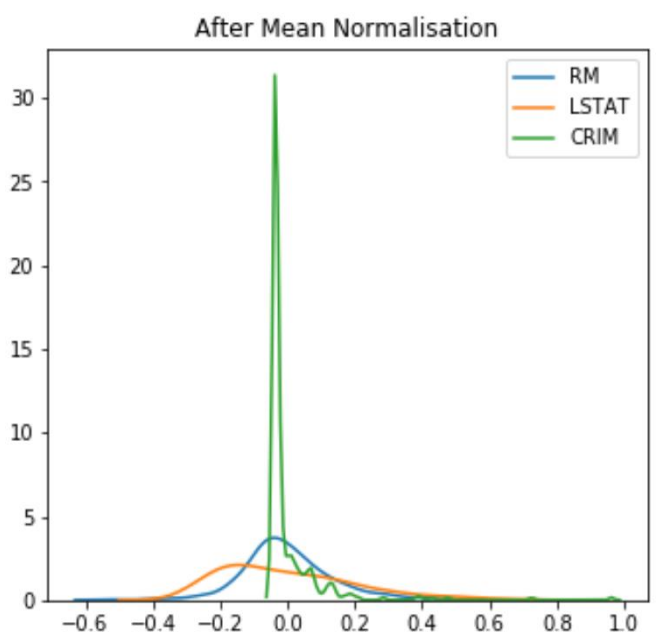
Price
0.44
0.39
0.17
0.11
0.00
0.44
0.17
0.22
0.56
0.11
1.00

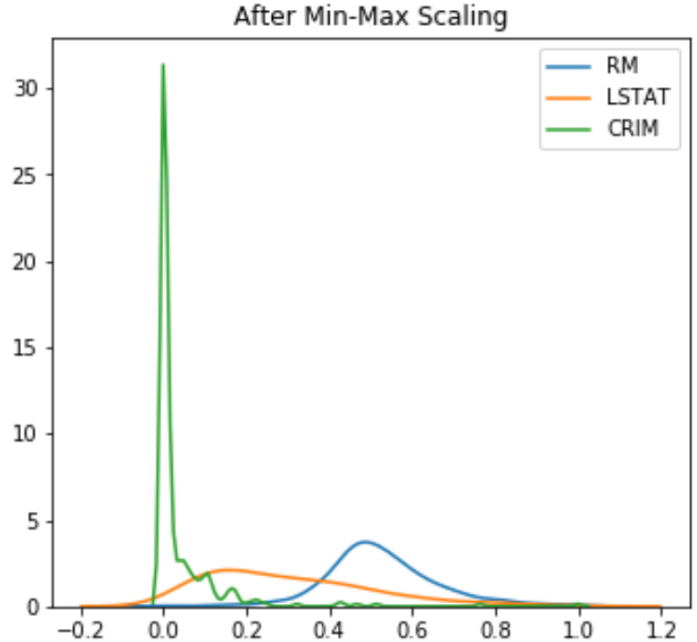
MinMaxScaling: summary

- Mean varies
- Variance varies
- May alter shape of the original distribution
- Minimum and maximum values within [0;1]
- Preserves outliers

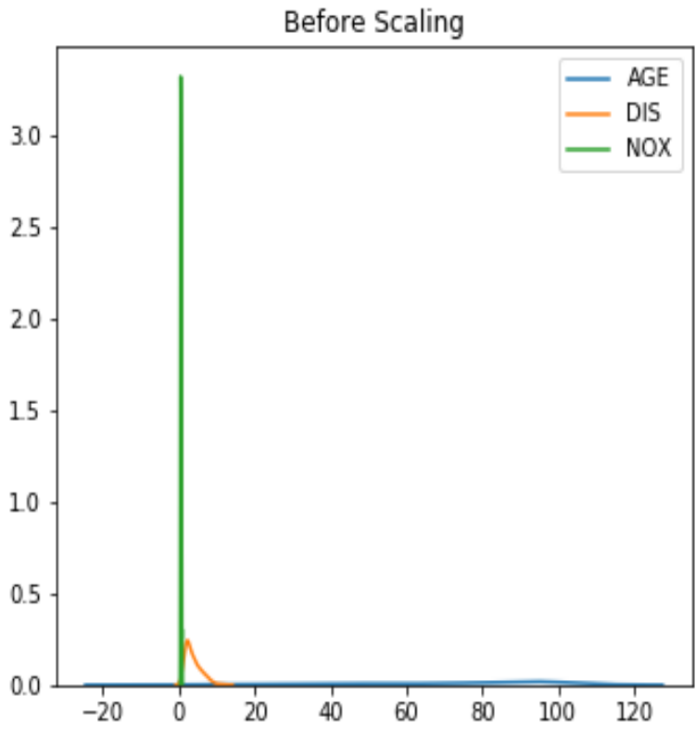
MinMaxScaling: Notebook

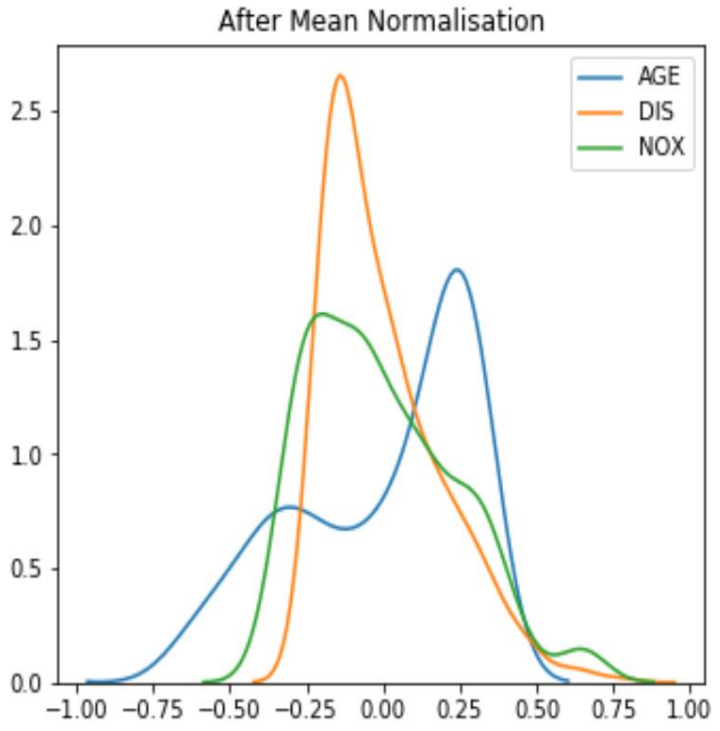


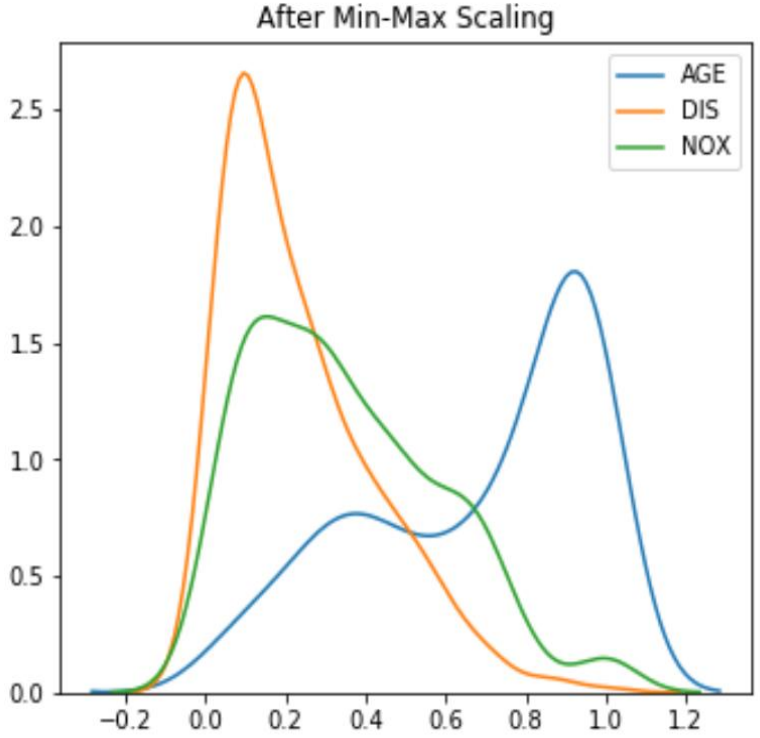




MinMaxScaling : Notebook







Accompanying Jupyter Notebook

- Read the accompanying Jupyter Notebook
- MinMaxScaling with Scikit-learn

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THANK YOU

www.trainindata.com