**Data Normalization**

Normalization is a rescaling of the data from the original range so that all values are within the new range of 0 and 1.

Normalization requires that you know or are able to accurately estimate the minimum and maximum observable values. You may be able to estimate these values from your available data.

A value is normalized as follows:

* y = (x – min) / (max – min)

Where the minimum and maximum values pertain to the value x being normalized.

For example, for a dataset, we could guesstimate the min and max observable values as 30 and -10. We can then normalize any value, like 18.8, as follows:

* y = (x – min) / (max – min)
* y = (18.8 – (-10)) / (30 – (-10))
* y = 28.8 / 40
* y = 0.72