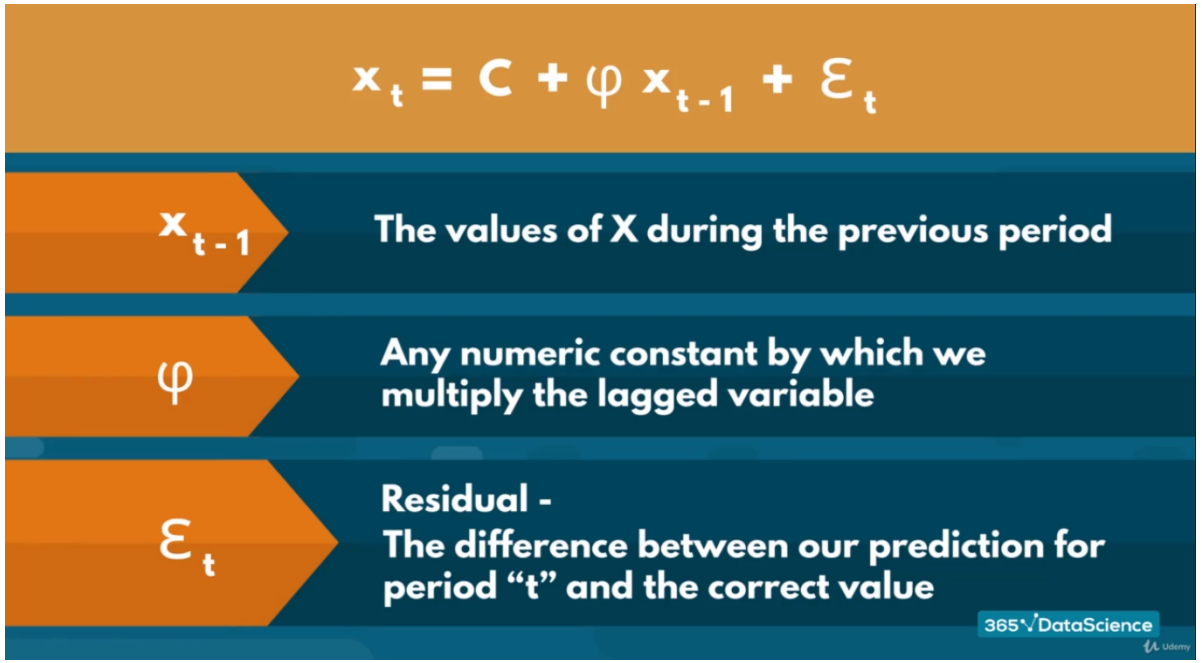
The AR Model

Full Name:

The **A**uto**r**egressive Model

Mathematical Notation:



Description:

The name of the model comes from autoregression. This means that the model uses values of the same variable (auto) to estimate the current one (regression).

We rely on autoregressive models when there is clear autocorrelation within the data. The term (autocorrelation) suggests that the variable is correlated with itself. More precisely, values from consecutive periods are related.

Since time series assumes that patters found in the past translate to the future, if autocorrelation is present in the data, we need to us some form of AR model to capture this relationship if we wish to make good estimates.

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Implementation of the Simple Model in Python: