# Cheat sheet

# **XGBoost**

#### **XGBoost**

A state-of-the-art machine learning model built for great accuracy. However, needs to be adjusted for Time Series problems.

# **Ensemble Learning**

A Machine Learning framework that consists in combining multiple models, usually poor/weak. The combination leads to a stronger model than each one alone.

## **Boosting**

Mechanism to improve accuracy. Consists in only looking at part of the observations at once for each model. Incorrectly predicted observation gain weight for future iterations of the model.

#### **Feature Sampling**

A mechanism that only includes a fraction of the predictors. The features in models with higher accuracy gain importance.

#### Minimum Child Weight

A parameter that states how easily the trend curve should change. Relates to the sum of the weights of each observation. Low values can mean that maybe not a lot of observations are in the round.

#### **ETA**

Learning Rate. How fast do youwant the model to learn?

#### **Max Depth**

How big should the tree be? Bigger trees go into more detail

#### **Gamma**

How fast should the tree be split?

## Subsample

Share of observations in each tree

#### Colsample by tree

How much of the tree should be analysed per round?

#### **Number of rounds**

How many times do wewant the analysis to be run?

