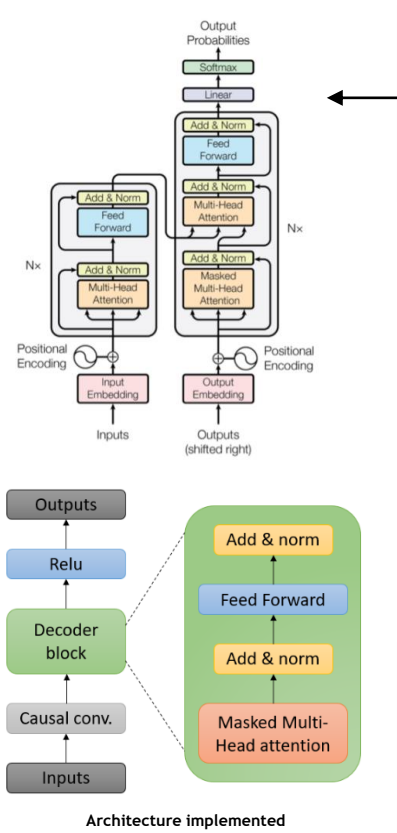


Data forecasting is an important activity when we need to predict the possible future behavior of the variables that we have in study, since according to that, we will take a decision or not.

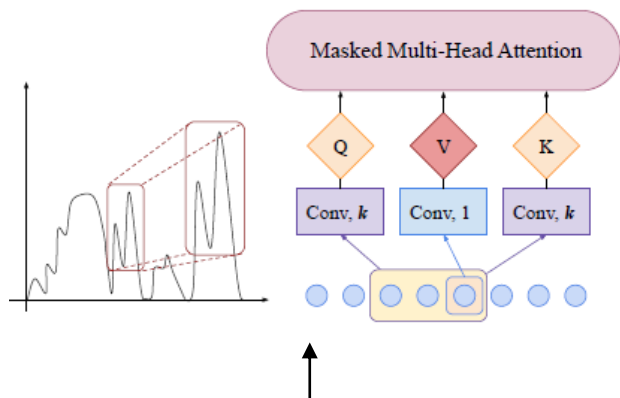
Dataset: The information used for training models correspond to the gold price between the years 2010 - 2021. It was taken from the platform *StrategyQuant* as japanese candles of temporalities D1, H4, H1, M15, M5.

Architecture: Was built a transformer-decoder neural network with a causal convolutional embedding. The goal was to get a mechanism able to identify patterns throughout long time series.



Transformer is an architecture based on *self attention mechanism*. Its work is to compare each and every input vectors looking for similar features in the embedding space.

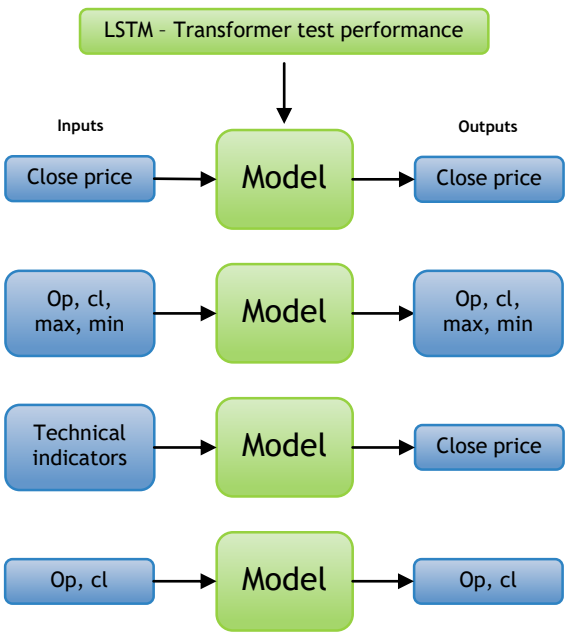
The self attention mechanism implement a look ahead mask, which avoid the model to look for similarities with information of future time steps.



Convolutional embedding is a technique implemented for telling the model to pay attention to the previous values, since their behavior would have influence over the prevision that we are trying to make.

Canonical convolution tries to identify important values, whereas causal convolution tries to identify patterns.

Methodology



Experiments

