

N-Beats review

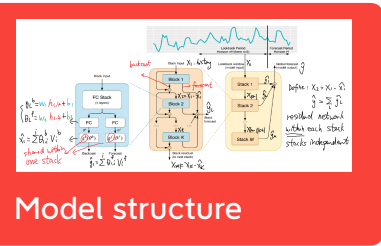
Residual network

Input of the next layer
 $x_l = x_{l-1} - \hat{x}_{l-1}$

Explainable components

Trend using polynomial basis function

Seasonality using sin function



Model structure

Ensemble learning

Use ensemble of different history period & evaluation metrics

History length: $n=2H...7H$

Evaluation metrics

sMAPE

MAPE

MASE

OWA

Novel ideas

Advantages

Simplicity

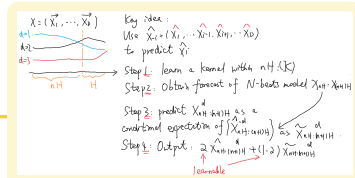
Explainability

Enhanced representation ability

Compatibility with N-Beats

Correlation (kernel) matrix modeling

Ensemble learning



Incorporating correlations

Easy to code without modifying internal structure

Kernel learning to incorporate correlation information

Equivalent to N-Beats in extreme cases

Ensemble learning idea