



AI-Driven Solutions for Retailers



About Us

- 20 years of experience in Custom Software Development.
- Part of tarent Group, Germany.
- Pioneers in implementing Big Data projects on the Romanian market; 9 successful big data projects over the past 4 years.
- Powerful development team of over 100 people who work guided by the Agile methodology.
- More than 100 technologies used in production.
- Our portfolio includes hundreds of custom apps and products.
- Organizing classes since 2005, we set up a new business division in 2016, as a result of growing demand: **eSolutions Academy**.

AI/ML

BIG DATA

CLOUD

IOT

FIRMWARE

WEB DEVELOPMENT

They Trusted Us Over the Years

Carrefour 


OMV

 tarent

REWE digital


ALTEX


orange™

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Data-Driven Solutions Empowering Retailers to Achieve Business Goals

A single-point software suite driven by AI/ML algorithms that helps you spend less time worrying about sales forecasts and excel spreadsheets and more time thinking about innovative ways to drive your business forward.

 **copio**

competition
analysis

 **gideon**

recommendation
engine

 **ispir**

price
automation

 **prophet**

sales
forecasting

 **alteus**

 **eolutions**

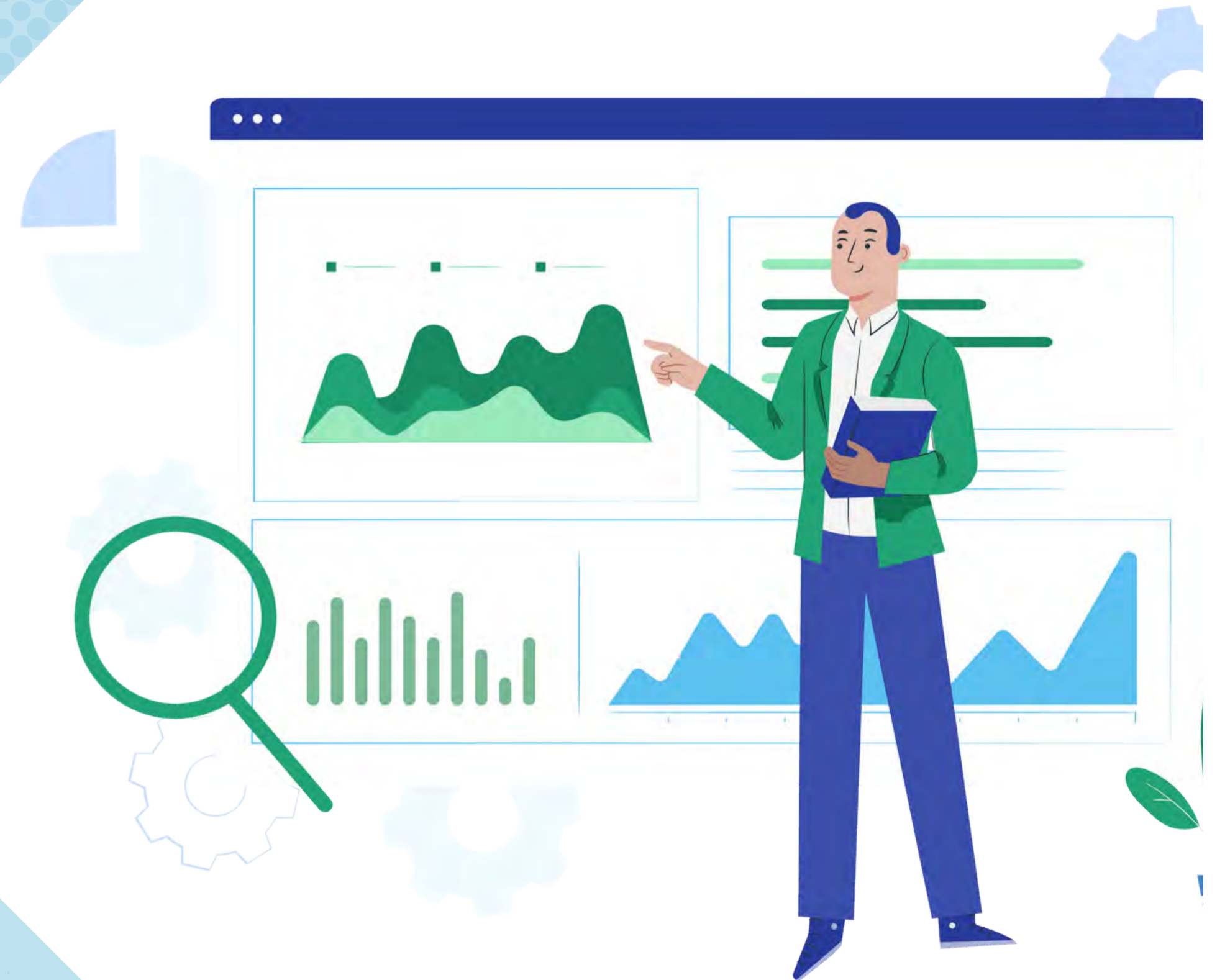
Competition Analysis



Competitor Price Monitoring Software designed to drive action based on your company's competitive landscape.

What for:

- identify the market positioning for the products and services offered, compared to the main competitors;
- observe market positioning changes, as a result of price policies shifting practiced by the competition;
- collect a very large volume of prices, in order to analyse them, compared to own products.



Recommendation Engine



An accurate recommendation system powered by ML & AI, generating smart recommendations to boost customers' satisfaction by helping them discover products based on their experiences, behaviours, preferences, and interests.

What for:

- improve user experience;
- increase conversion rate;
- boost customer retention.



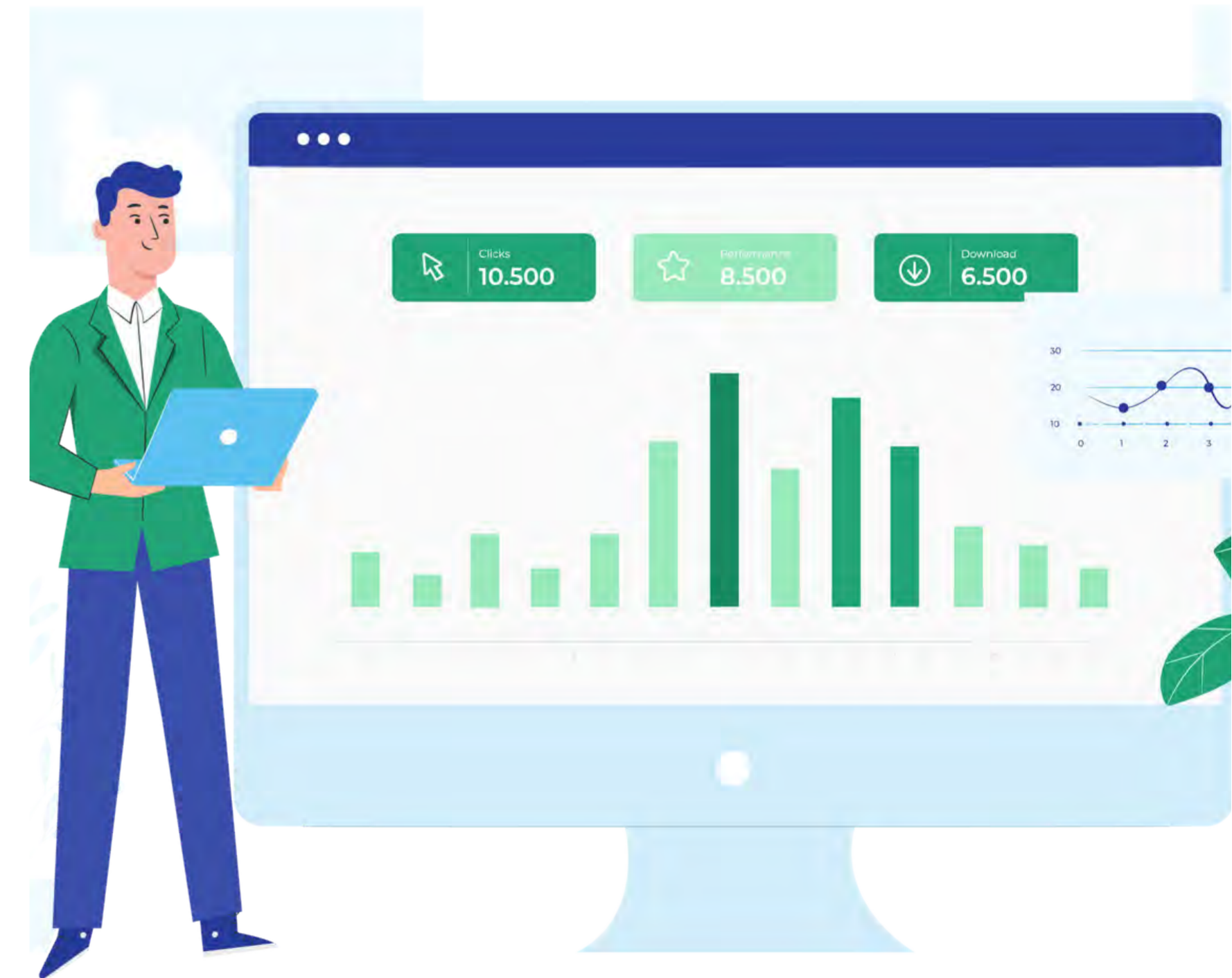
Price Automation



Ispir is built to suggest the best price for any product or service, based on data intelligence.

What for:

- get recommendations for the best prices depending on multiple attributes of the product and competition prices;
- simulate various pricing scenarios and estimate the impact of price changes;
- analyze and report data to facilitate the decision making process.



Sales Forecasting



Accurate demand planning software that adds power of forecasting in sales and operation processes.

What for:

- get accurate demand forecasts;
- capture trend and seasonality;
- optimize inventory process.



How It Works?



Data Processing

historical time series
(raw) data

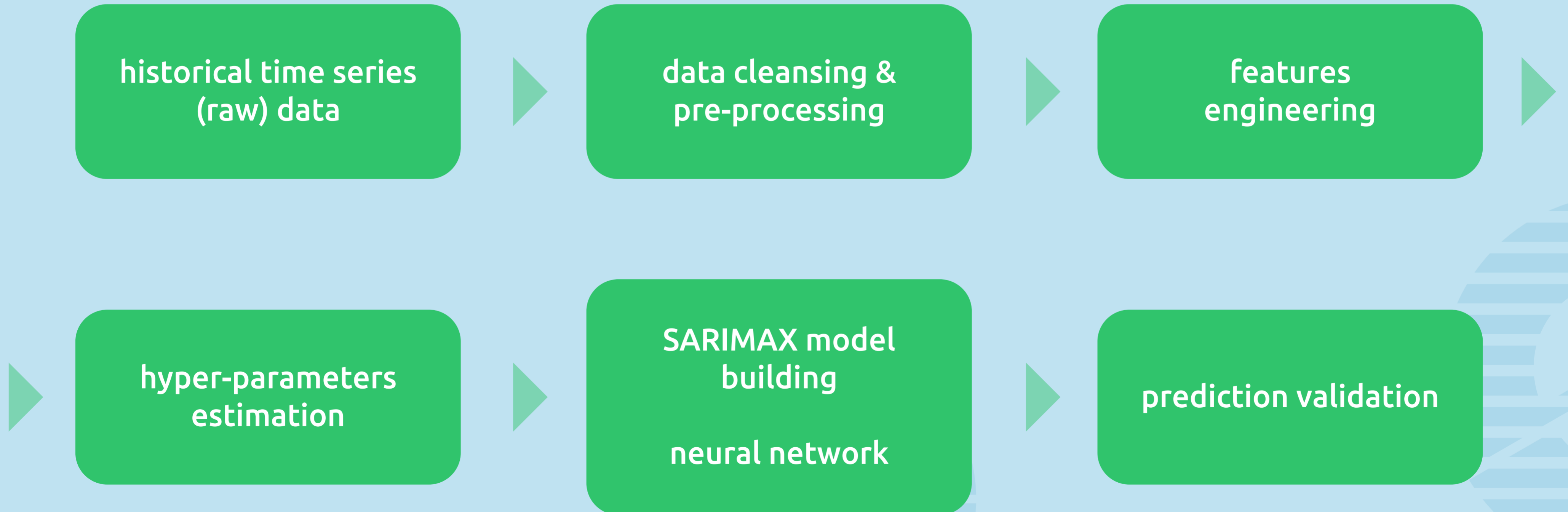
data cleansing &
pre-processing

features
engineering

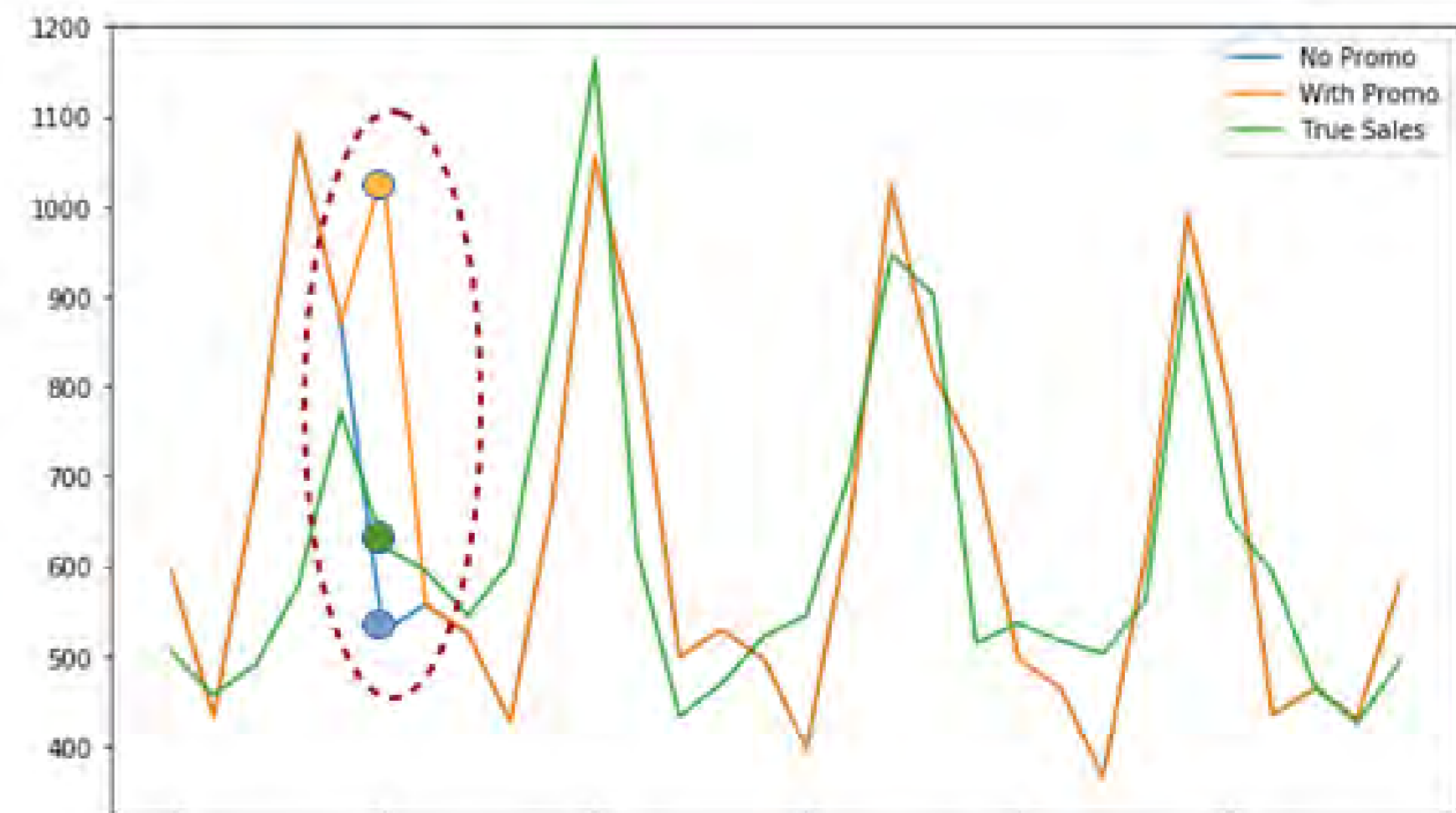
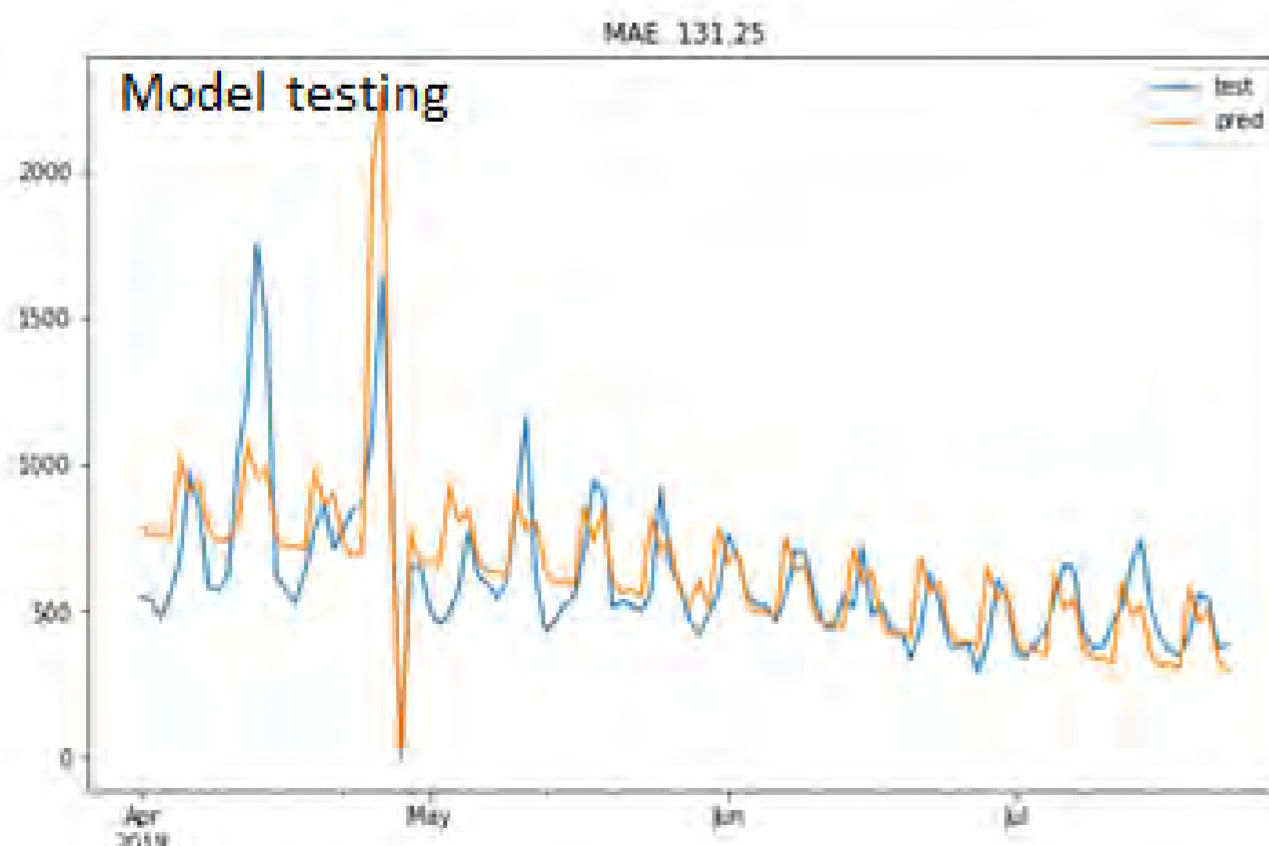
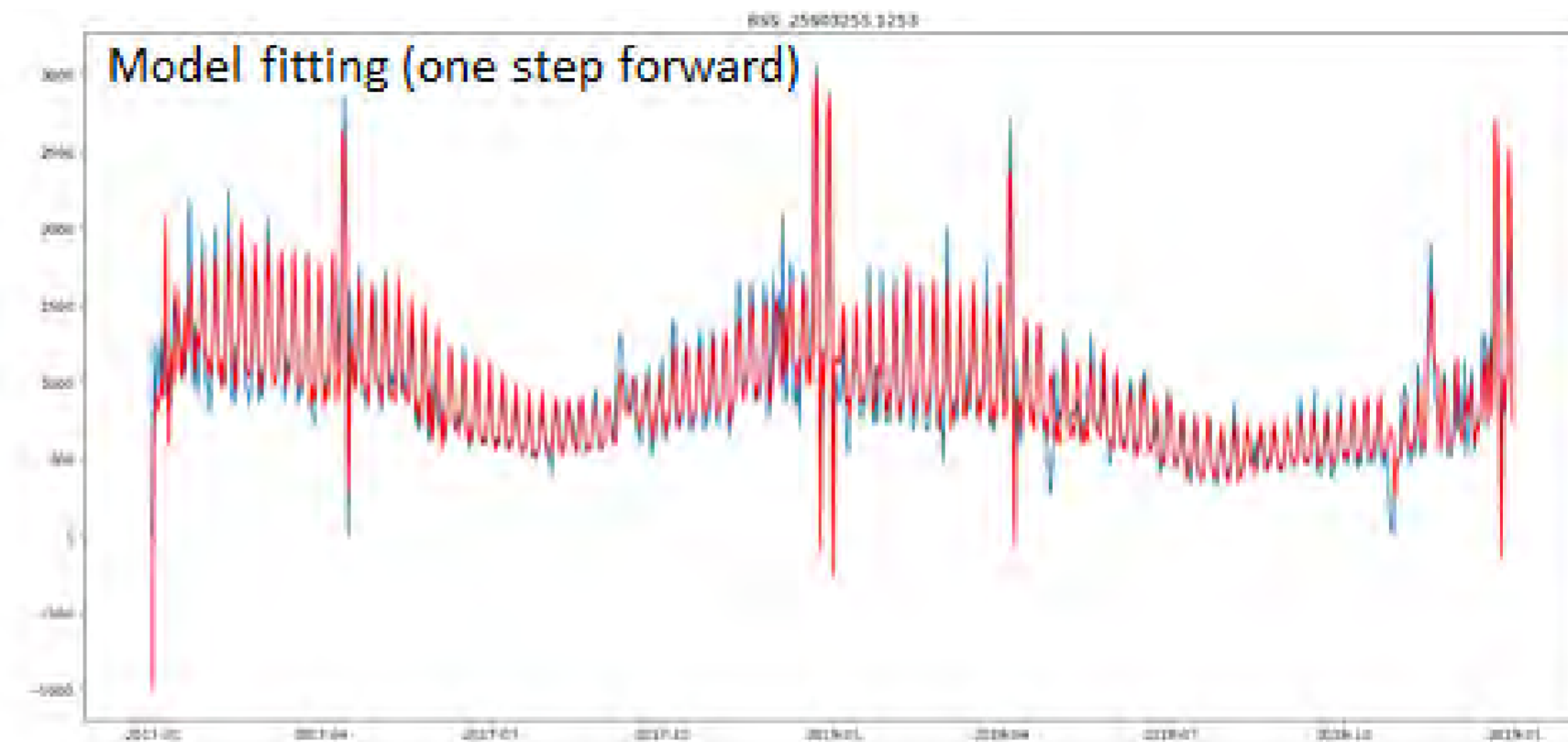
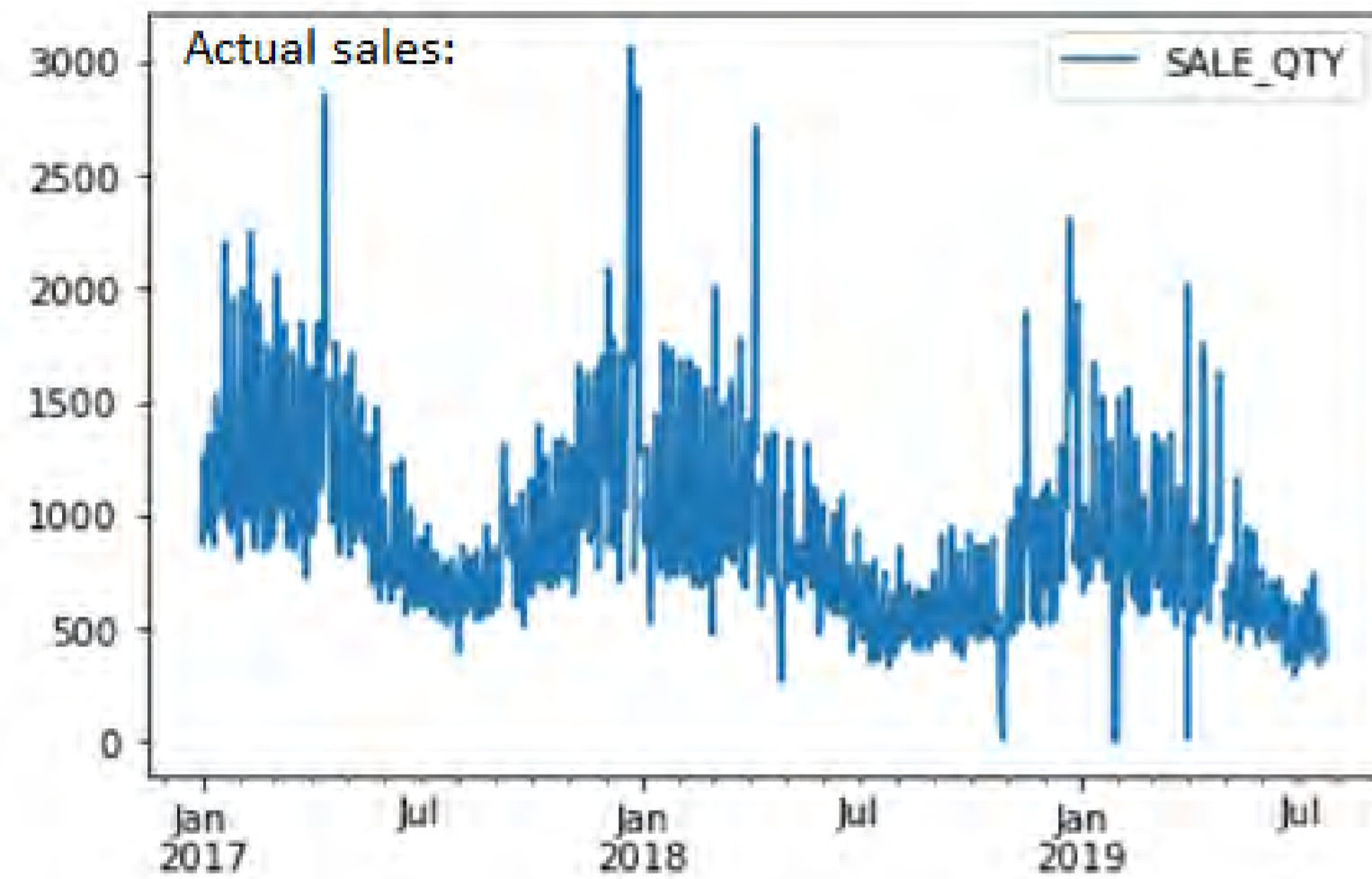
hyper-parameters
estimation

SARIMAX model
building
neural network

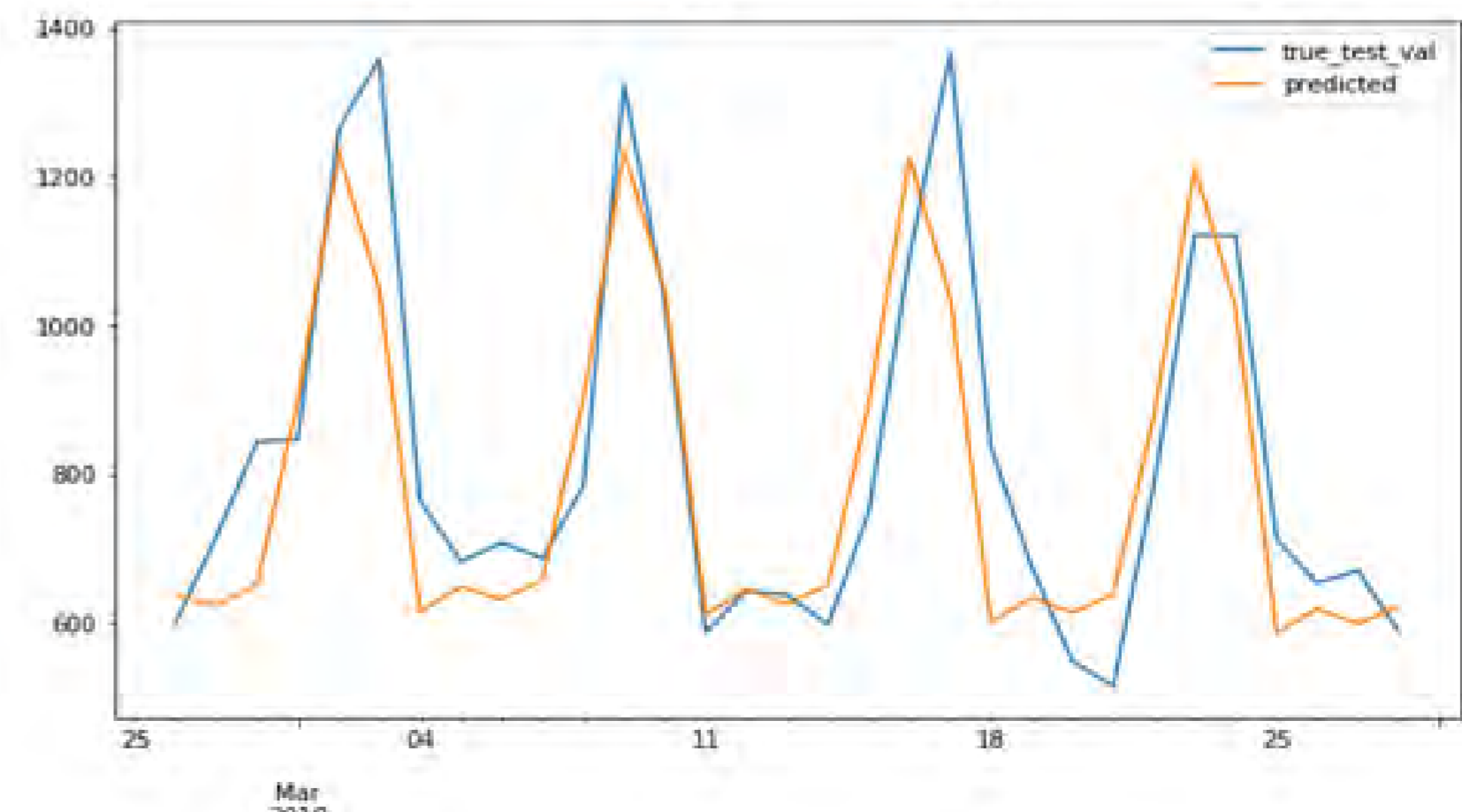
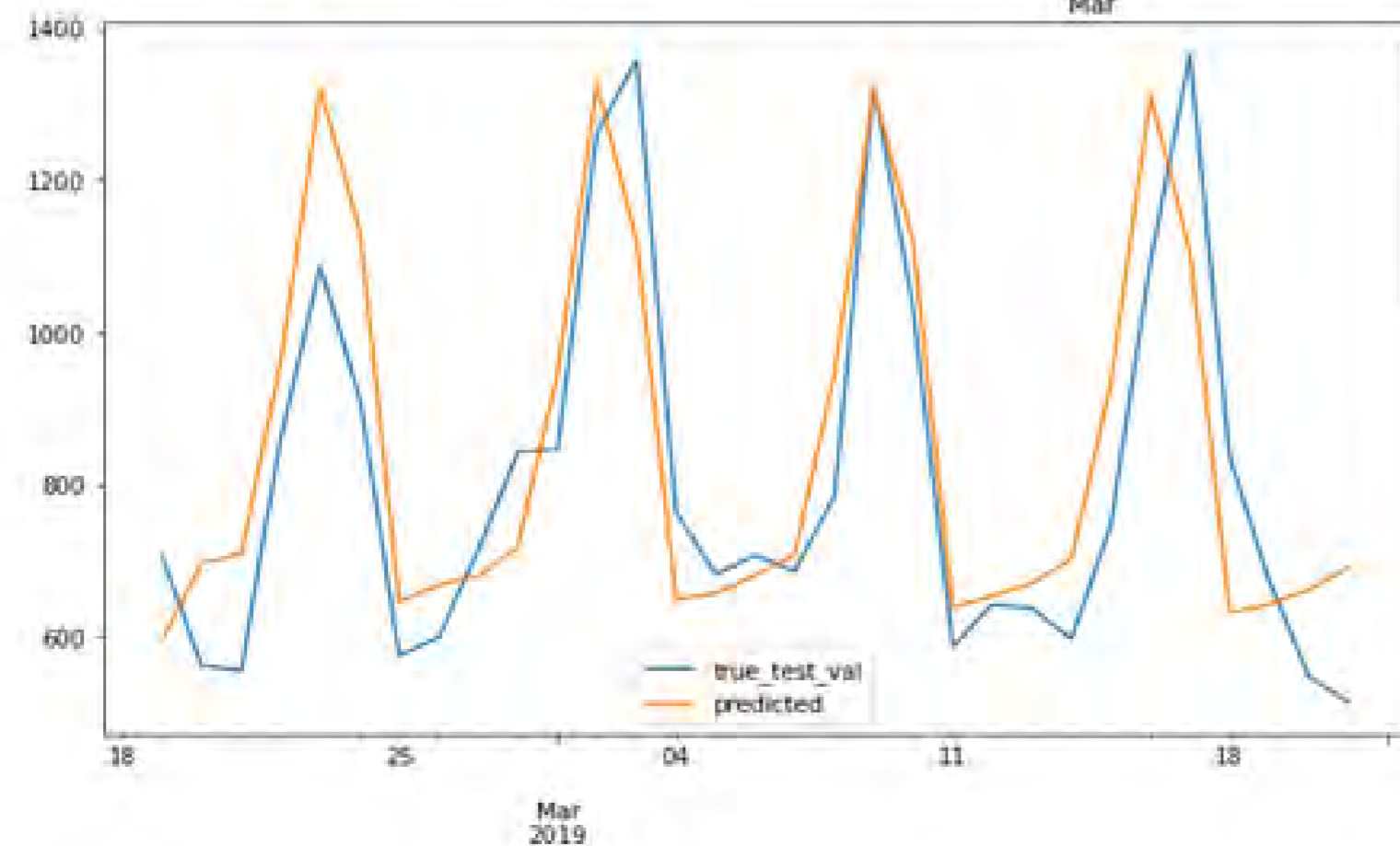
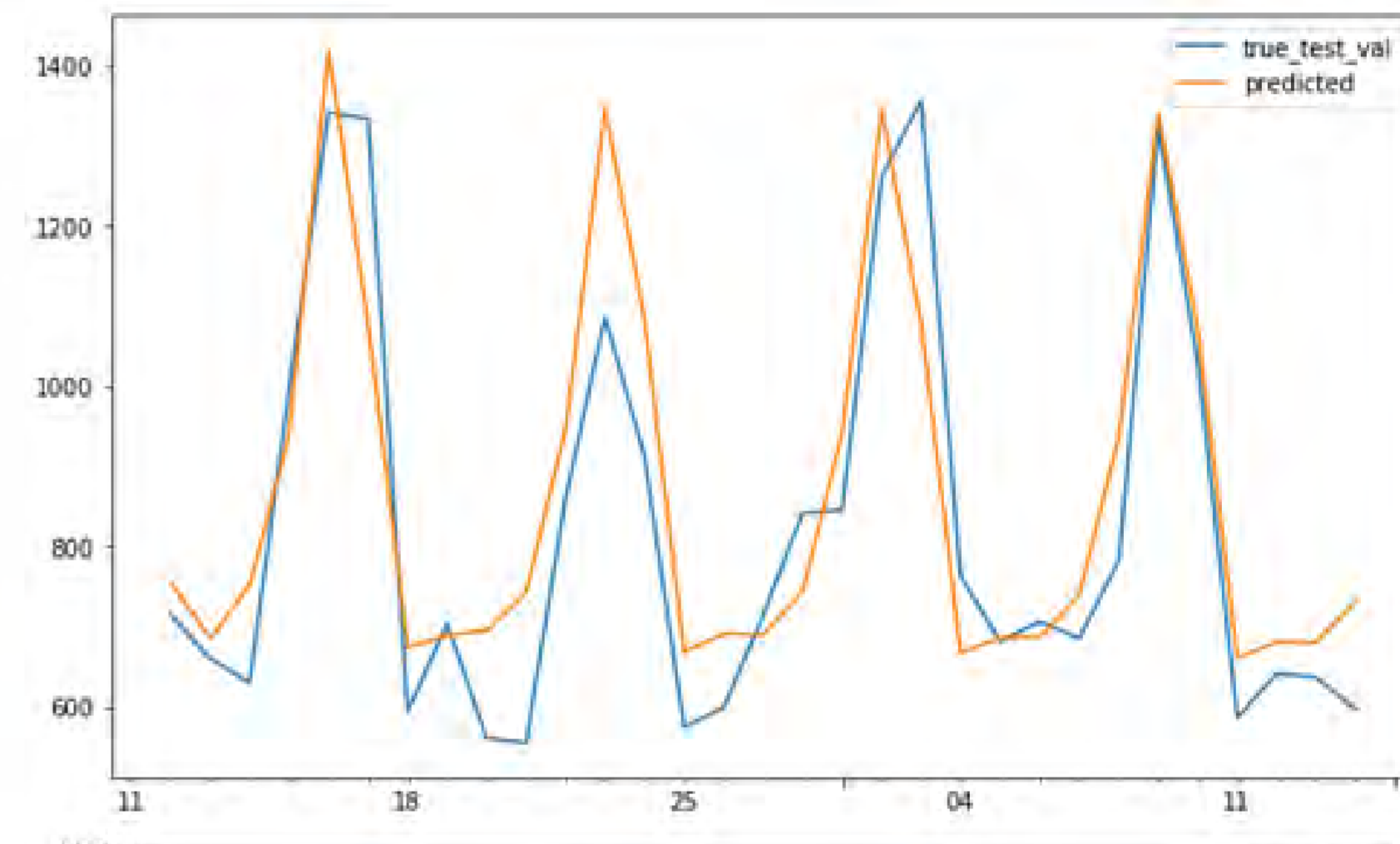
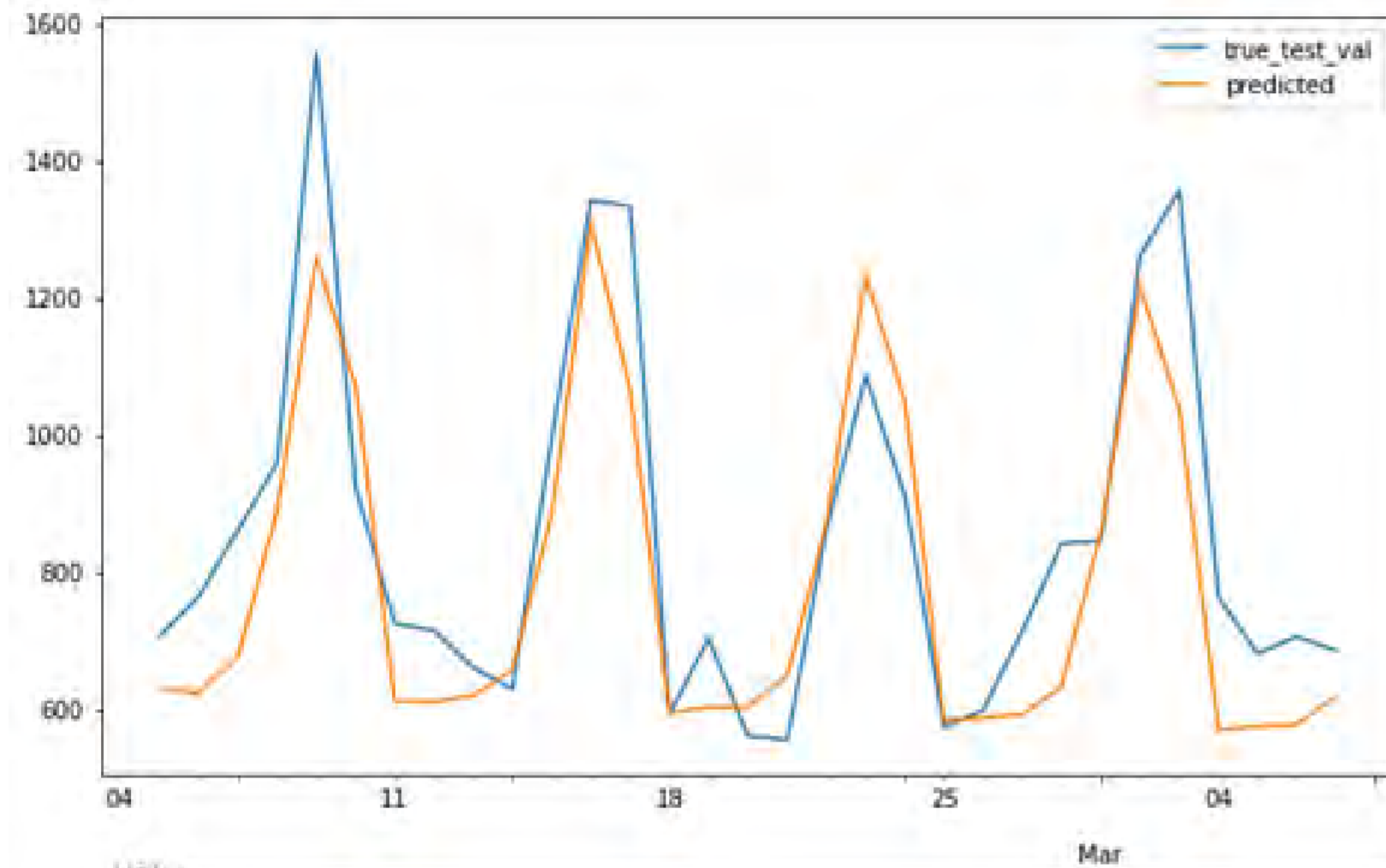
prediction validation



Forecast Example of a Real Product



Forecast Example of a Real Product



The Results



Average
absolute sales
forecast error
for the entire
period: 7.57%

Error definition:
abs
(sum of predicted
daily sales – sum of
actual daily
sales)/sum
of actual daily
sales) [%]

Variables used:
- sales history
-two seasonalities:
weekly & annual
- promotion days
- special days, with
repetitive annual
pattern (i.e. Easter)

**Errors (%) per
prediction interval:**
[-5.54, -7.52, -14.70,
-21.26, -19.52, 7.96,
-4.98, -4.53, 3.78, -7.70,
-4.81, -1.64, 0.80, -2.76,
5.97, -13.66, -4.35,
-4.61, 11.21, 2.88, 7.67,
4.08, 9.35, 6.78, 11.23]



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General Constantin Budisteanu Street,
No. 20, 1st District,
Bucharest, 10775



office@esolutions.ro



+40753029187



www.esolutions.ro

