

ML

TD1 – feature engineering

An online merchant asks you to make real-time predictions for the customers of his website: when they are ready to buy, tell them the date of receipt of their product, for the various possible transport services. (Chronopost ..).

To do this, you have 6 weeks of order history with 3 pieces of information

- Date and time of the customer's order
- Shipment date (to simplify considered as order shipment date)
- Transport service

In production

- You will have a daily update (every night) of the warehouse status (this same updated file)
- You will need to be able to deliver real-time on-the-fly prediction with each new online order. The speed of your predictive model will be as important as its accuracy

You have 3 hours to build your project strategy and your model

How do you take the problem?

Do you agree to make this prediction? if so, with which commitment (s)?

What will be your strategy

- target: how to predict a date?
- classification or regression (we are looking for a discrete numerical value ...)
- How to select the test set? -...

Data Discovery:

- Visualize the flows,
- Make observations

Feature engineering

- How to enrich the model with new features? Knowing that no other features can be given to you
 - Build them

Model selection

- test different algorithms
- visualize your results
- analyze your important variables
- Deduce in new features?

How do you go to production

- You receive in production only a date and time (real order time) and not from the transport service (not yet chosen by the customer): with this only information and the update of the orders shipments from the warehouse updated during at night you must predict the calendar dates associated with each transport service (the customer will choose)
- How to reduce the response time?

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