

QUIZ:- 11

Started on	Dienstag, 25 Januar 2022, 6:53
State	Finished
Completed on	Dienstag, 25 Januar 2022, 8:03
Time taken	1 hour 9 mins
Grade	3.00 out of 4.00 (75%)

Question **1**
Complete
Mark 0.00 out of 1.00
Flag question

Which of the following statements is true?

Select one or more:

- ☐ Cross-validation for time series should be done by randomly drawing single samples for validation and test set.
- ☒ All time series have the same periodicity, so one should always include yearly, monthly, weekly, daily and hourly seasonality in a time series model.
- ☐ Any machine learning model can be used as a time series model if the right features are used.
- ☒ The pandas function to_datetime is helpful to convert arbitrary date formats into a unified format.

Question **2**
Complete
Mark 1.00 out of 1.00
Flag question

Which of the following statements is/are true?

- ☒ Linear regression can be solved by inverting the covariance matrix of the data and multiplying it with the product of data time targets. Hence if the features of your data are not correlated, the covariance matrix of your data is the identity and this solution reduces to the covariance of your features and your targets.
- ☐ In contrast to classification models, regression models do not require cross-validation.
- ☐ Mean squared error, mean absolute error and coefficient of determination cannot become negative.
- ☒ Regression models aim at predicting continuous target variables.

Question **3**
Complete
Mark 1.00 out of 1.00
Flag question

SARIMAX models are a popular class of time series models. Which modelling assumption/aspect does each letter (or pairs of letters) in the abbreviation refer to?

X	eXogenous features	↕
MA	Moving Average	↕
S	Seasonality	↕
AR	Autoregressive	↕
I	Integrated (refers to temporal differencing to make time series more stationary)	↕

Question **4**
Complete
Mark 1.00 out of 1.00
Flag question

Which of the following statements about anomaly detection is true?

Select one or more:

- ☒ Depending on the data distribution, simple parametric methods can perform well in anomaly detection tasks.
- ☐ Evaluating anomaly detection methods is simple as one can use standard classification metrics and anomalies are frequent.