

SECOND PROJECT OF INTERNSHIP/FILE 2

21) When implementing linear regression of some dependent variable y on the set of independent variables $\mathbf{x} = (x_1, \dots, x_r)$, where r is the number of predictors, which of the following statements will be true?

Answer: d) both a and b.

22) What indicates that you have a perfect fit in linear regression?

Answer: d) The value $R^2 = 1$, which corresponds to $SSR = 0$.

23) In simple linear regression, the value of what shows the point where the estimated regression line crosses the y axis?

Answer: b) Bo.

24) Check out these four linear regression plots:

Answer: d) The top left plot is the most underfit plot.

25) There are five basic steps when you're implementing linear regression:

Answer:

d. Import the packages and classes that you need.

b. Provide data to work with, and eventually do appropriate transformations.

e. Create a regression model and fit it with existing data.

a. Check the results of model fitting to know whether the model is satisfactory. •

c. Apply the model for predictions.

26) Which of the following are optional parameters to LinearRegression in scikit-learn?

Answer:

b) fit_intercept

c) normalize d)

e) n_jobs

27) While working with scikit-learn, in which type of regression do you need to transform the array of inputs to include nonlinear terms such as x^2 ?

Answer: c) Polynomial regression.

28) You should choose statsmodels over scikit-learn when:

Answer: c) When you need more detailed results.

29) Numpy is a fundamental package for scientific computing with Python. It offers comprehensive mathematical functions, random number generators, linear algebra routines, Fourier transforms, and more. It provides a high-level syntax that makes it accessible and productive.

30) Seaborn is a Python data visualization library based on Matplotlib. It provides a high-level interface for drawing attractive and informative statistical graphics that allow you to explore and understand your data. It integrates closely with pandas data structures.