Advanced Python (Viz libraries)

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Agenda

- Why visualisation libraries

- List of visualisation libraries

- Matplotlib

- Seaborn

Why visualisation libraries

➢ Mostly whole data that you work on in data science field can be very huge with hundreds of column and lakhs of rows.

➢ Trying to understand the data manually row wise or column wise is not possible.

➢ Hence in such cases visualisation libraries comes to your rescue. You can use them to visualize your data.

➢ Humans are visual creatures and most of the info when visualised can be understood much better.

➢ You can use the visualisation libraries for understand the data and perform EDA on it.

➢ This can help you understand which column contains what kind of values and which column not to consider for model training and so on.

List of visualisation libraries

➢ Python has a number of visualisation libraries that you can use to visualize and understand your data and to perform EDA. You can choose either of the libraries as per you convenience.

▪ Matplotlib

▪ Seaborn

▪ Plotly

▪ Bokeh

▪ ggplot

▪ and so on.

Matplotlib

➢ In today's lecture we will be going through two main and mostly used python libraries for visualisation.

➢ Matplotlib is the basic and highly used visualisation library. This library is popular among data scientist of all levels of experience and it is one of the default visualisation library used.

➢ This library is used to create 2D plots from data in array format. Internally it makes use of NumPy.

➢ It provides developers the flexibility to customize the visualisation.

➢ It is one of the oldest visualisation library in python.

➢ Libraries like seaborn uses matplotlib internally.

Seaborn

➤ Seaborn is a library that is built on top of matplotlib.

➤ It creates beautiful and visually attractive plots.

➤ As compared to matplotlib, the code required in seaborn to create visualisation is very less.

➤ Even complex visualisation can be created using a single line in matplotlib.

➤ There is large set of functions in seaborn to create different kinds of plot with ease based on our requirement.

➤ Since seaborn is built on top of matplotlib you can built advanced plot using seaborn and then customize it using matplotlib as need.

QUESTIONS?

THANK YOU