Training Day – 46

\*November 20, Wednesday\*

* \*Topic:\* Customizing Visualizations
* Added annotations, adjusted figure sizes, and used advanced legends.
* Example: Annotated key points in a scatter plot.

A scatter plot uses dots to represent values for two different numeric variables. In Python, we have a library matplotlib in which there is a function called scatter that helps us to create Scatter Plots. Here, we will use matplotlib.pyplot.scatter() method to plot.

Syntax : matplotlib.pyplot.scatter(x,y) Parameters:

* x and y are float values and are the necessary parameters to create a scatter plot
* marker : MarkerStyle, default: rcParams[“scatter.marker”] (default: ‘o’)
* cmap : cmapstr or Colormap, default: rcParams[“image.cmap”]

(default: ‘viridis’)

* linewidths : float or array-like, default: rcParams[“lines.linewidth”] (default: 1.5)
* alpha : float, default: None → represents the transparency

Annotation of matplotlib means that we want to place a piece of text next to the scatter. There can be two cases depending on the number of the points we have to annotate :

1. Single point annotation
2. All points annotation

# Single Point annotation

In single-point annotation we can use matplotlib.pyplot.text and mention the x coordinate of the scatter point and y coordinate + some factor so that text can be distinctly visible from the plot, and then we have to mention the text.

Syntax: matplotlib.pyplot.text( x, y, s) Parameters:

* x, y : scalars — The position to place the text. By default, this is in data coordinates. The coordinate system can be changed using the transform parameter.
* s : str — The text.
* fontsize — It is an optional parameter used to set the size of the font to be displayed.

Approach:

1. Import libraries.
2. Create data.
3. Make scatter plot.
4. Apply plt.text() method.