



## **Data Visualization with Python**

## **Cheat Sheet: Plotly and Dash**

Function	Description	Syntax	Example
Plotly Express			
scatter	Create a scatter plot	<pre>px.scatter(dataframe, x=x_column, y=y_column)</pre>	<pre>px.scatter(df, x=age_array, y=income_array)</pre>
line	Create a line plot	<pre>px.line( x=x_column, y=y_column,'title')</pre>	<pre>px.line(x=months_array, y=no_bicycle_sold_array)</pre>
bar	Create a bar plot	<pre>px.bar( x=x_column, y=y_column,title='title')</pre>	<pre>px.bar( x=grade_array, y=score_array, title='Pass Percentage')</pre>
sunburst	Create a sunbust plot	<pre>px.sunburst(dataframe, path= [col1,col2], values='column',title='title')</pre>	<pre>px.sunburst(data, path=['Month', 'DestStateName'], values='Flights',title='Flight Distribution Hierarchy')</pre>
histogram	Create a histogram	<pre>px.histogram(x=x,title="title")</pre>	px.histogram(x=heights_array,title="Distribution of Heights")
bubble	Create a bubble chart	<pre>px.scatter(dataframe, x=x,y=y,size=size,title="title")</pre>	<pre>px.scatter(bub_data, x="City", y="Numberofcrimes",     size="Numberofcrimes",hover_name="City",     title='Crime Statistics')</pre>
pie	Create a pie chart	<pre>px.pie(values=x,names=y,title="title")</pre>	<pre>px.pie(values=exp_percent,   names=house_holdcategories, title='Household Expenditure')</pre>
Plotly Graph Objects			
Scatter	Create a scatter	<pre>go.Scatter(x=x, y=y, mode='markers')</pre>	<pre>go.Scatter(x=age_array, y=income_array, mode='markers')</pre>
	Create a line plot	<pre>go.Scatter(x=x, y=y, mode='lines')</pre>	<pre>go.Bar(x=months_array, y=no_bicycle_sold_array,mode='lines')</pre>
add_trace	Add additional traces to an existing figure	fig.add_trace(trace_object)	<pre>fig.add_trace(go.Scatter(x=months_array, y=no_bicycle_sold_array))</pre>
update_layout	Update the layout of a figure, such as title, axis labels, and annotations.	<pre>fig.update_layout(layout_object)</pre>	<pre>fig.update_layout(title='Bicycle Sales', xaxis_title='Months', yaxis_title='Number of Bicycles Sold')</pre>
Dash			
dash_core_components.Input	Create an input component	<pre>dcc.Input(value='', type='text')</pre>	<pre>dcc.Input(value='Hello', type='text')</pre>
dash_core_components.Graph	Create a graph component	dcc.Graph(figure=fig)	dcc.Graph(figure=fig)
dash_html_components.Div	Create a div element	html.Div(children=component_list)	<pre>html.Div(children=[html.H1('Hello Dash'), html.P('Welcome to Dash')])</pre>
dash_core_components.Dropdown	Create a dropdown component	<pre>dcc.Dropdown(options=options_list, value=default_value)</pre>	<pre>dcc.Dropdown(options=[{'label': 'Option 1', 'value': '1'}, {'label': 'Option 2', 'value': '2'}], value='1')</pre>

## Author(s)

Dr. Pooja

## Changelog

Date	Version	Changed by	Change Description
2023-06-19	0.1	Dr. Pooja	Initial version created