💮 rainfall in india - Mini ML Project 🦃

1. dataset analysis 😌

original data

1.1 original dataframe

Т	NOV	DEC	ANNUAL	Jan-Feb	Mar-May	Jun-Sep	Oct-Dec
0 3.500000	558.200000	33.600000	3373.200000	136.300000	560.300000	1696.300000	980.30000
1 7.200000	359.000000	160.500000	3520.700000	159.800000	458.300000	2185.900000	716.70000
2 1.200000	284.400000	225.000000	2957.400000	156.700000	236.100000	1874.000000	690.60000
3 2.200000	308.700000	40.100000	3079.600000	24.100000	506.900000	1977.600000	571.00000
4) 700000	25 400000	344 700000	2566 700000	1 300000	309 700000	1624 900000	630 80000

data postprocessing

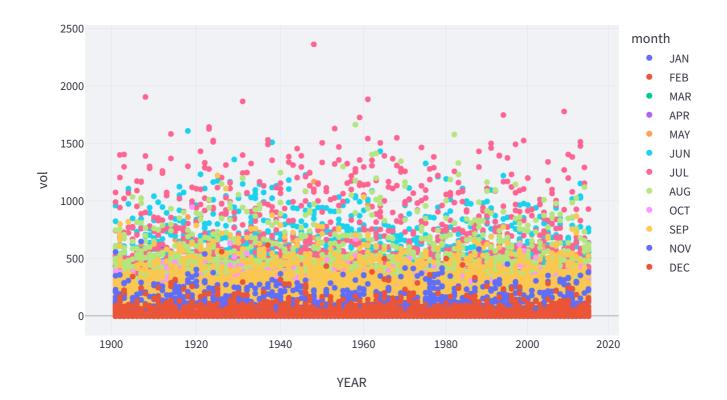
1.2 data postprocessing

	SUBDIVISION	YEAR	month	vol
0	ANDAMAN & NICOBAR ISLANDS	1901	JAN	49.200000
1	ANDAMAN & NICOBAR ISLANDS	1902	JAN	0.000000
2	ANDAMAN & NICOBAR ISLANDS	1903	JAN	12.700000
3	ANDAMAN & NICOBAR ISLANDS	1904	JAN	9.400000
4	ANDAMAN & NICOBAR ISLANDS	1905	JAN	1.300000

scatterplot

1.3 scatterplot

Streamlit theme (default) Plotly native theme



mean rain statewise

1.4 mean rain statewise

himalaya rain: 229.35028985507248

naga rain: 202.80318840579713

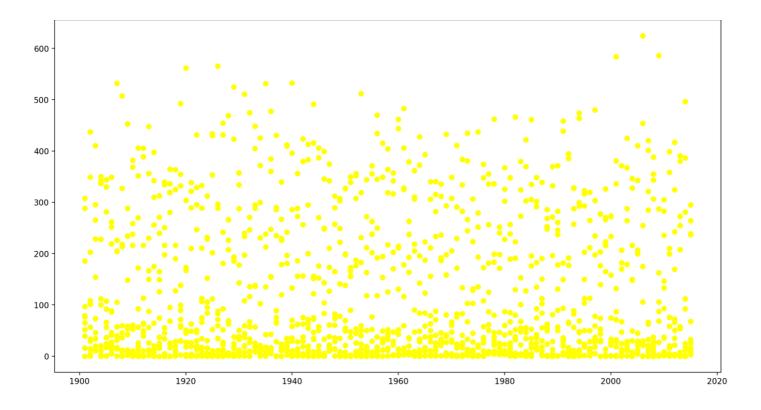
assam rain: 215.0581884057971

arunachal rain: 286.8682989690721

andhaman rain: 243.99681818181818

scatterplot2

1.5 orissa rain scatterplot



2.machine learning models

linear regression model

2.1 linear regression model

13439.04759262689

ridge

2.2 ridge

Train data*

13352.881142225877

Test data*

13800.458896981743