

Appendix

Our data set is cleaned from a CSV file from the National Weather Service (weather.gov), containing precipitation data for Charlottesville from 1893-2024. The original data set shows Charlottesville's monthly precipitation in inches and annual precipitation. The final dataset contains 1488 rows and 2 columns showing the month and year and the associated total rainfall for the corresponding month.

Figure 1: Data Dictionary

Column	Description	Potential Responses
Date	Contains the datetime values ranging from January 1, 1901 to October 1, 2024	2008-02-01
Value	Contains the total precipitation value in inches across Charlottesville as a numeric value rounded to two decimal places for the corresponding month.	1.69

Figure 2: Distribution of Data

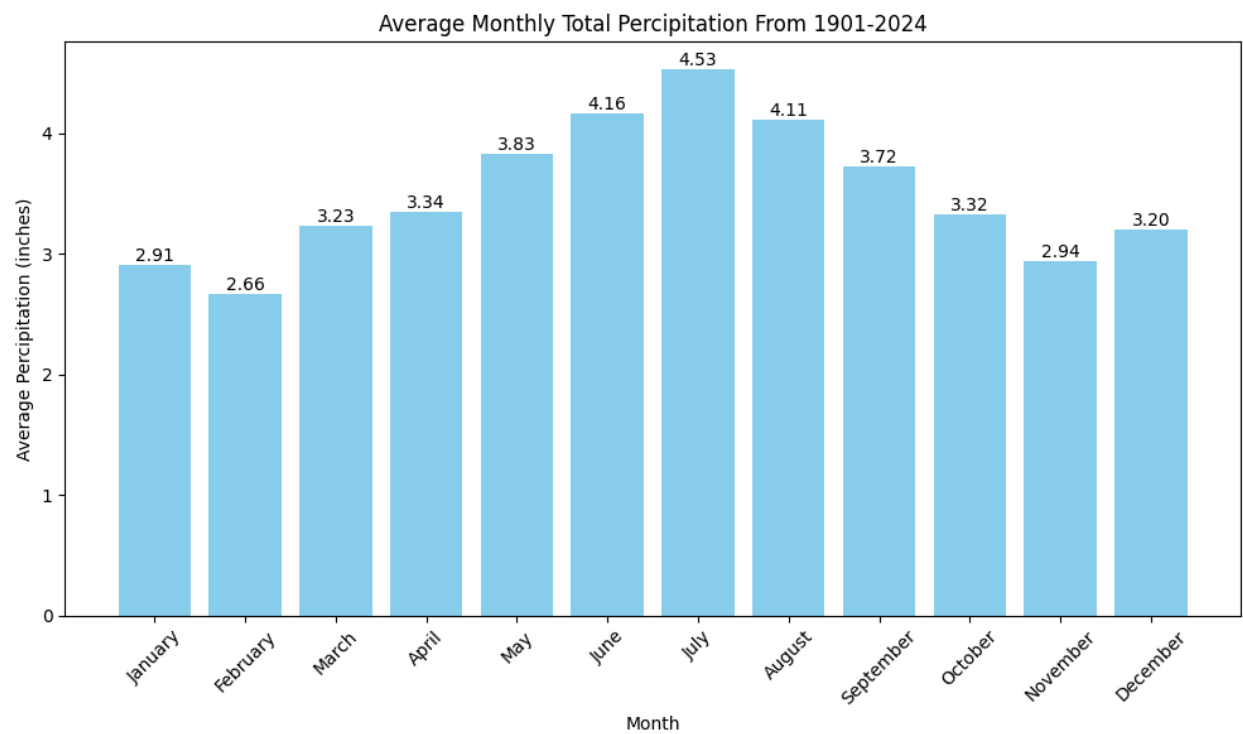


Figure 3: Time Series plot of monthly precipitation

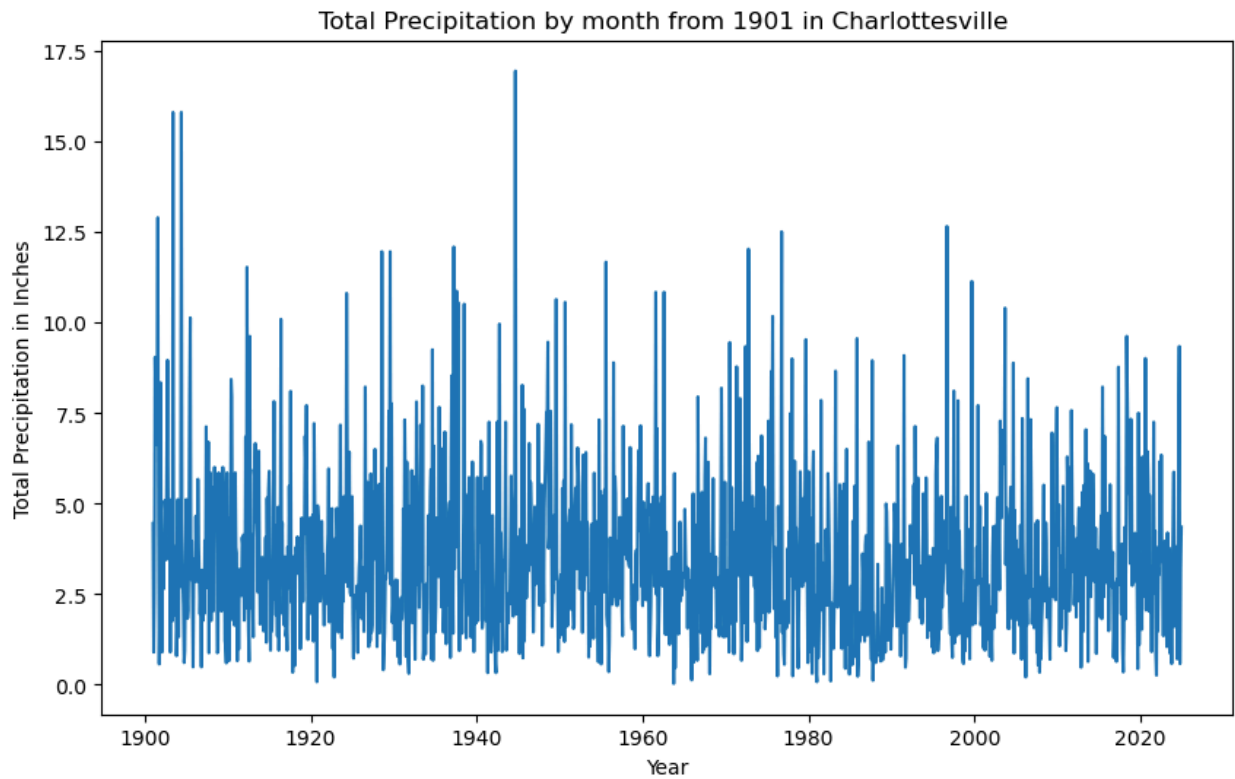


Figure 4: Summary Statistics

Variable	Mean	STD	Min	25%	50%	75%	Max
Value	3.50	2.21	0.03	1.93	3.05	4.55	16.96