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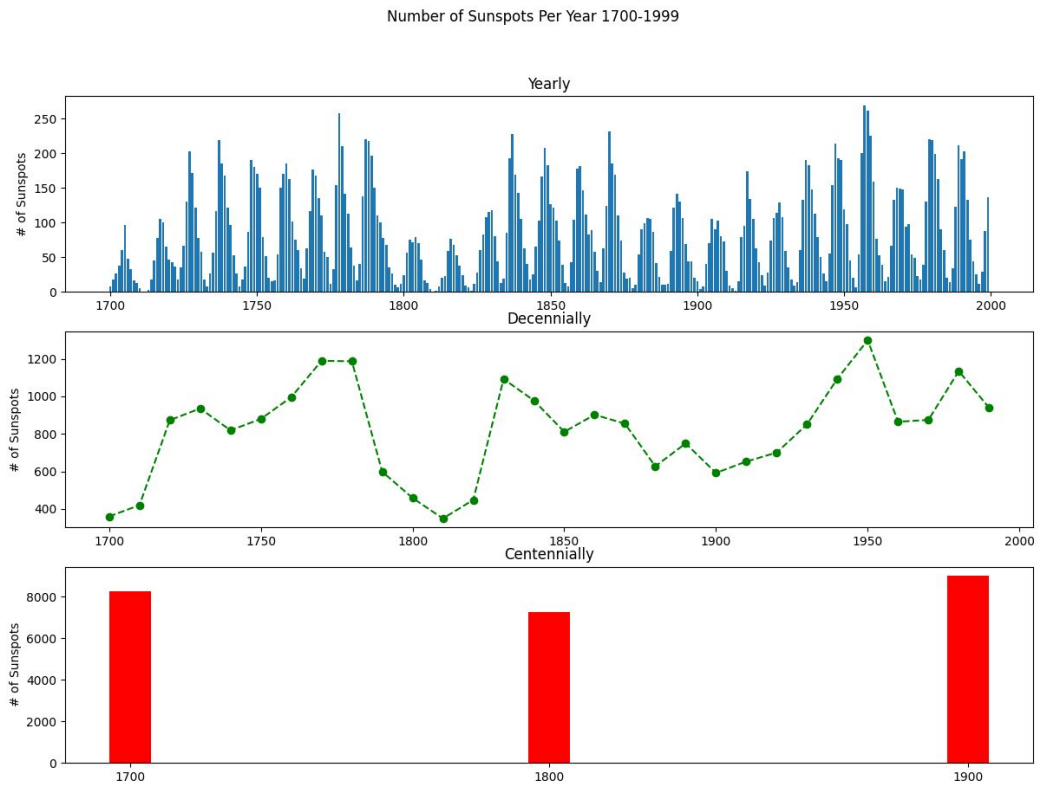
Project #2
SIE507
12/15/20

Sunspot Chart Analysis



What are your overall conclusions?

Based up the yearly data chart you can see a clear 10 year oscillation in the number of sunspots. This oscillation begins and ends around 0 sunspots and peaks around the 5 year of every decade (1705, 1715, 1725, etc). This trend continues through all 300 years.

There also seems to be another large factor oscillation every 100 years, with the stronger sunspot activity occurring around year 50 of each century. There does not seem to be any longer term growth or decay or activity based on the data. The overall trend is fairly consistent with a slight more activity in the 1900 century.

b. What are your recommendations or predictions?
I would predict that the 10 and 100 year oscillation would continue indefinitely with a possible increase in activity into the future.

c. What are some new things that you learnt from the dataset once you visualize the data in different ways? What surprised you? Did you notice any hidden information or patterns from the data and/or graphs?

I saw the 10 year oscillation pattern pretty clearly. It was very surprising because the data at first glance seems to be fairly random, but it follows a strong pattern.