

CROWD COMPUTING – JUST ESTIMATE 06

Here in this programming screen cast i will show you how can you plot the estimates made by the crowd as i said first of all you have to import the matplotlib library so let us import that, `import matplotlib.pyplot as plt` here is the estimates added that has been given to us so i will just plot this array so let us do that `plt.plot` i will just write the estimate arrays here, let us plot that sorry it is matplotlib so as i said if you don't give the x values python generates the x values on its own so since we don't need any sort of x or y values here we just want to show the estimates here so what i will do here is i will take this estimates array in the x axis and for y axis i will keep it constant i will keep constant y values for all these estimates i repeat i will keep constant y values for all the estimates for that i have to create another array for example another list i will create like y so for i in range length of estimates i will just append any constant value here for example i will take five if so here we need to plot estimates that had been taken in the x axis then we will take y so let us run this programme now, as you can see we have a straight line here but you want to show the estimates these are discrete values not continuous so i will just use `ro` here or `r--` i will prefer to use `r--`, `r--` in the previous programming screen cast i have explained `r--` stand for red dash lines so let us run it again so we have the estimates in the form of dash lines red dash lines so now i want to plot the mean and the median of all the estimates so that i can get to know that which value is nearer to the actual value so for that as it has been explained in the previous programming screen cast that, that you have to trim the sample you have to trim the ten percent smallest and ten percent largest values so let us do that i just first of all sort the estimates, `estimate.sort` that will arrange the elements in the ascending order after that i have to decide the trim value that is ten percent in our case so i will just say `trim` values is equal to `point one into length of estimates`, `length of estimates` now we also have to type cast with `int` so i will just do that in now let us trim the values so now `estimate` is equal to `estimates` `trimmed values` colon it will trim the values from the estimate list we also have to trim the values again so let us do that it will start from the trimmed values, in trimmed value in our case is seven so it will start from seven and it will go till `length of estimates minus TV` so i will just write the colon here `length of estimates minus TV` so i array the same has been obtained is from `TV` from the trimmed value `length of estimate minus tv` this has been already been this has already been explained from the previous programming screen cast so we are done with the y array we are also done with the estimates array the trim estimates array so now let us plot that the trimmed estimates array there is some error let us cut this x and y must have same dimension ok, now we have to append according to the new length of estimates please note that i will append according to the new length of estimates please note that the length of estimates has changed so we have to append y according to the new length of estimates so let us do that so we have another graph with is showing the estimates please observe that in the previous graph we had till two thousand but in the new graph we have till seven hundred because we have appended the values we have trimmed the ten percent smallest and ten percent largest values so we are done with plotting that so let me now show you which value is nearer to the actual value, actual value in our case is three seventy five so

first of all let me plot that i just write `plt.plot` plus write three seventy five because we are taking constant values and i will represent it by say green triangle so let us run it again so we have three seventy five here now let me calculate the mean and median of this data for that i will import statistics `import statistics` so it will be like `plt.plot` first values value is `statistics.mean` of the estimates and while i was constant that is why i represent by say red dots let us do that red dots run it again so we have red dot here that is the mean of the estimates and the green dot here that is the actual line let us also plot the median of the data so i will just write `plt.plot` `statistics.Median` i just write estimates take y as constant and represent it by blue square yes let us run it again so as you can see that blue square that is the median it is here and the mean that is red dot that is major to the actual value and blue square that is the median it is far away from the actual value so actually it depends on the data you have to calculate many aggregate measures like mean, trim mean and median of the data and whichever aggregate measure is nearer to the actual value you can take that these kinds of experiments work on the aggregate measures i hope this programming screen cast was useful to you guys and have a nice day happy learning thank you.