

ENPM 809T Homework 3

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Question 1 (20 pts)

The video can be accessed at <https://youtu.be/jDGSFJYg16s>

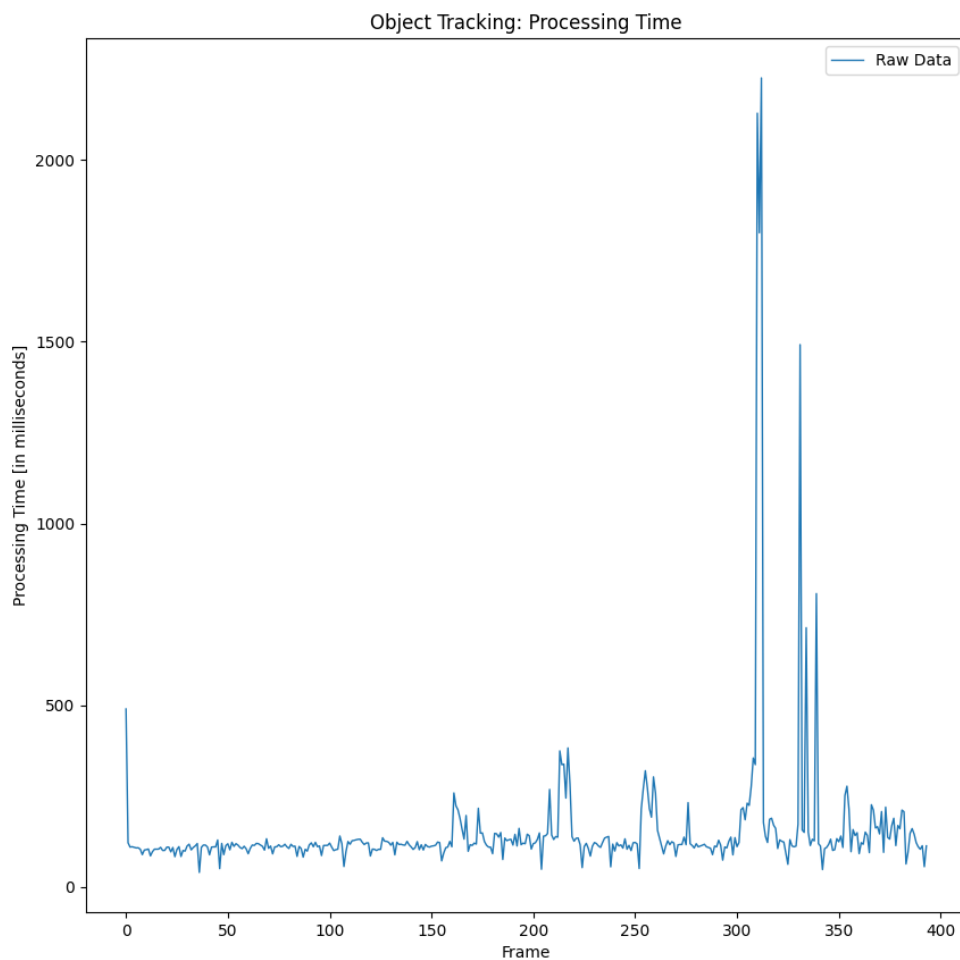


Figure 1: It can be seen here that when the video was made for 390 Frames, the maximum time taken to process was 2500 milliseconds. Although the values of the processing time are usually in a range between 0 to 500 we can notice a few outliers which are out the 500 milliseconds time range.

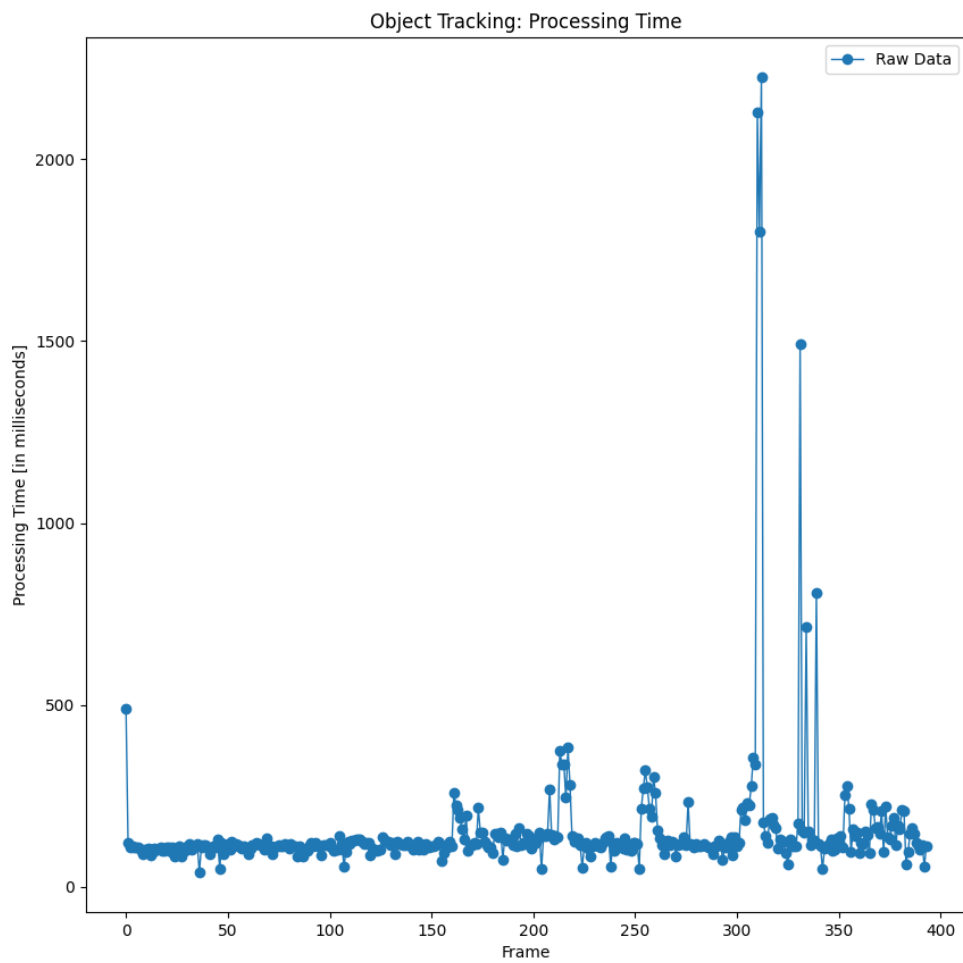


Figure 2: This plot is similar to the one above, where the points are marked using markers, it can be seen that mostly processing time is in the same range of 100-200ms but for a few instances it goes way up to 2300 ms.

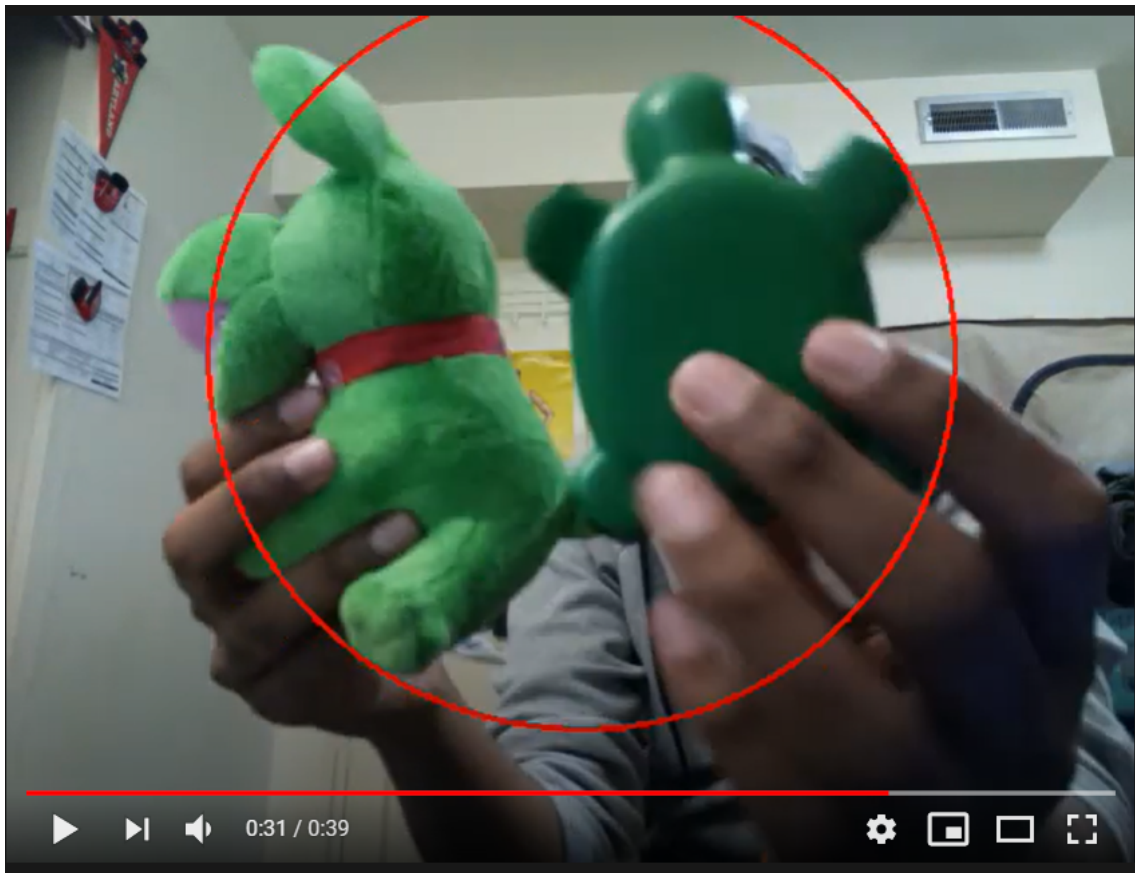


Figure 3: Upon checking the video to see the highest values of processing time was found when the contours had a large area and a radius was to be found to cover the region of interest.

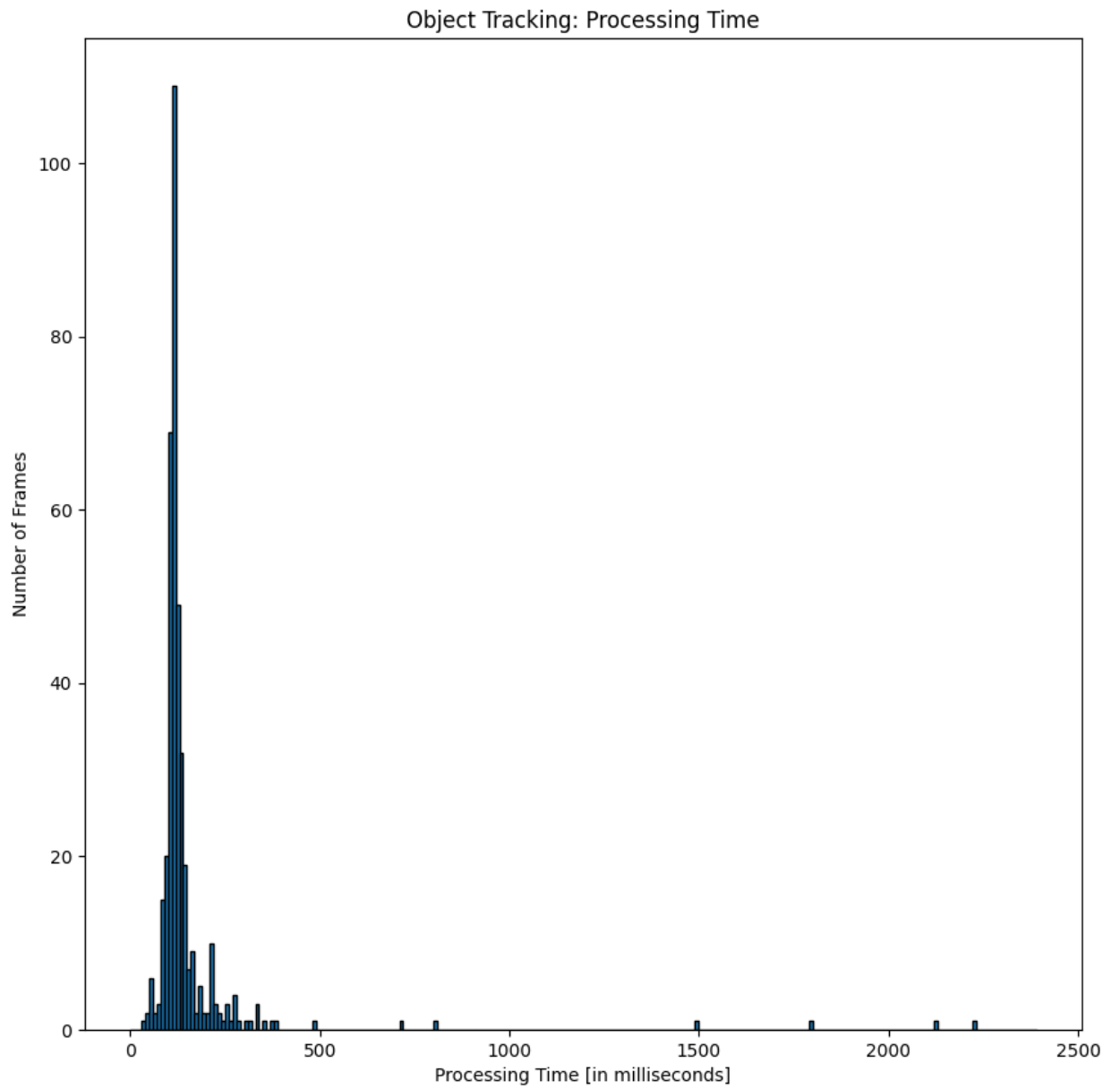


Figure 4: From the generated histogram for all the values of processing time, it clear that the processing time out of 500ms is found for 10-15 frames but the rest of 350 frames is less than 500ms.

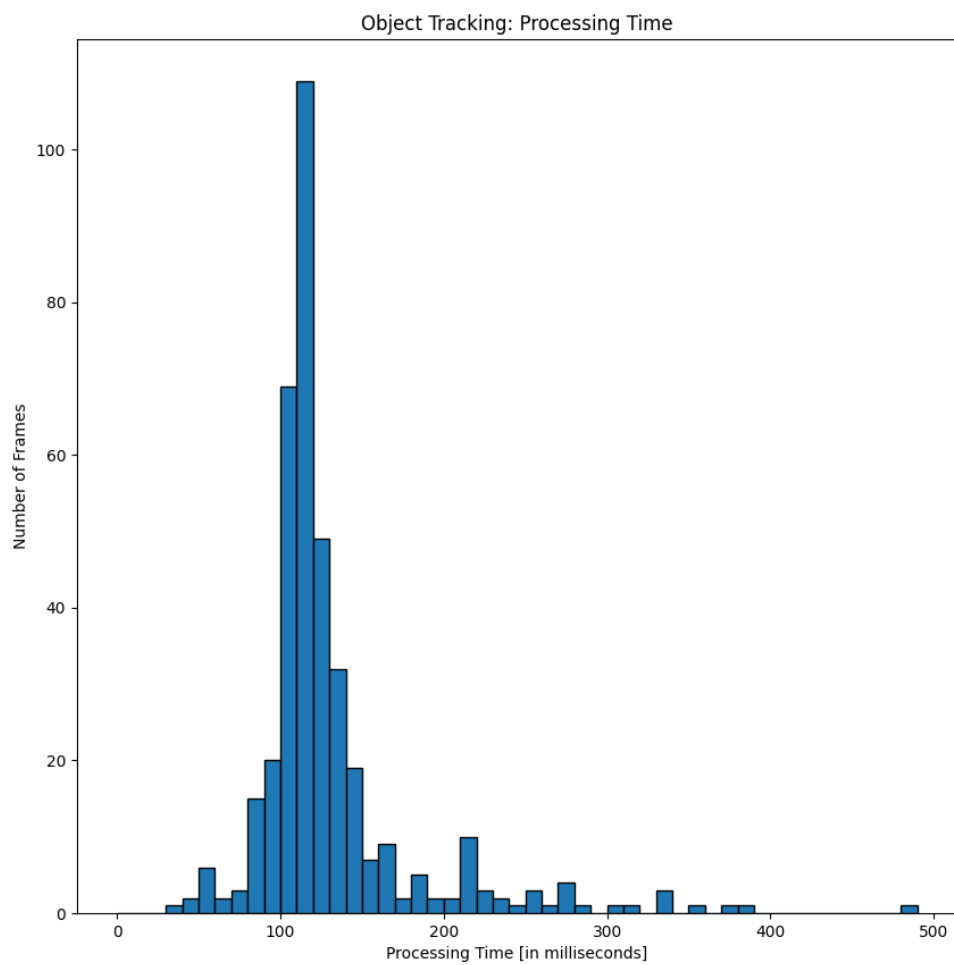


Figure 5: Zooming on the histogram for the values of the range 0 to 500ms we can see a clear rise in the count of frames which lie between 100-200ms.