

## Journal 6

Throughout the past week, I have been focused on getting a comprehensive understanding of the new dataset that I will be working with. This dataset was constructed by the VSLab which consists of researchers from the National Tsing Hua University and the University of Washington. To clarify, the dataset contains videos that feature car crashes and videos that depict regular (non-crash) car activity. The following table shows the distribution of classes in the dataset.

**Dataset Distribution**

	Positive examples	Negative examples	Total
Training set	455	829	1284
Testing set	165	301	466
Total	620	1130	1730

In addition to having balanced classes, this dataset contains a variety of complicated road conditions that will ultimately strengthen my car crash detection algorithm. After completing an agreement, I was given access to these videos. To familiarize myself with the dataset, I watched a small portion of the car crash videos to understand the different circumstances of the crashes. In addition, I began implementing my preexisting code onto these new videos. Specifically, I am currently working on using this new dataset to test my computer vision and machine learning-based car video extrapolation algorithms. In the coming weeks, I hope to get a working program that displays a linear extrapolation of a car in a video from this new dataset.

The paper that the creators of this dataset published has a wealth of information on how to use a combination of machine learning and computer vision to predict car crashes in dashcam videos. As a result, I have been reading this paper so that I have a better idea of what approach I could take to incorporate video extrapolation into my algorithm. Furthermore, I plan on using the researcher's approach as a steppingstone to arrive at a more robust car crash prediction model that incorporates extrapolation. Overall, during this week, I made progress in securing the new dataset and getting a better understanding of how its creators used it to predict crashes.