Cars Object Detection

- This project's purpose is to implement TensorFlow 2 Detection Model Zoo, it's setup guide is available here .
- A class was used to include some basic functions to make the code more readable and less chaotic.
- Then the Label map Proto buff text file was created which will be later used to generate train and test records.
- The boundary boxes were given in csv format.
- So, the boundary boxes were written in xml files which are necessary for generating train and test records.
- The model used here for detections is Faster R-CNN ResNet152 V1 640x640 which is available alongside so many other models from here .
- The pipeline config file was adjusted to better suit the project's idea.
- The model was trained for 3000 steps then the checkpoints were restored to make predictions.
- The model was then tested using images and videos.
- The link for the data and the training checkpoints is here .