

Parking Space Counter

INTRODUCTION:

THIS PROJECT IS USED TO COUNT EMPTY SPACES IN A PARKING LOT

PROJECT BY:

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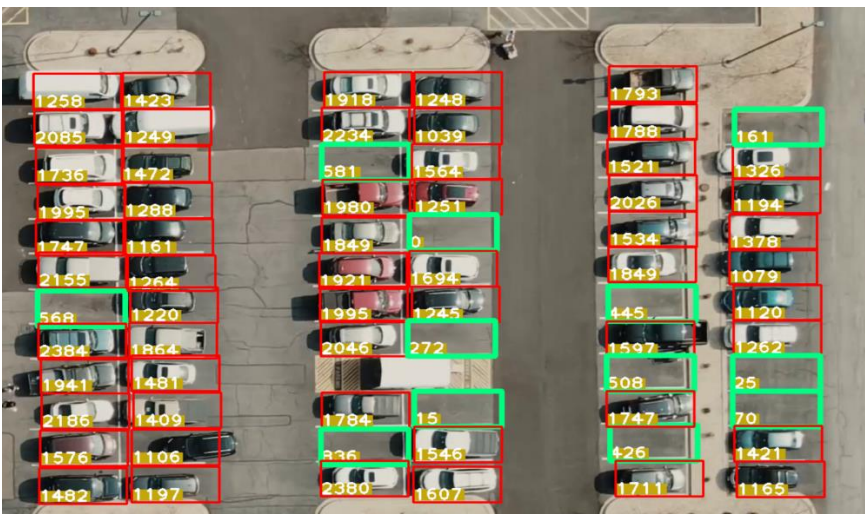
DATASET:

THE DATASET USED HERE IS TWO FILES. ONE IS A PNG IMAGE FILE AND ANOTHER ONE IS THE PARKING LOT VIDEO.

1) PARKING LOT IMAGE: IT IS USED TO SELECT THE NO OF PARKING LOTS IN THE PARKING LOT. SO THAT IT CAN BE SEND FOR FURTHER DETECTION TO FIND WETHER THERE'S A CAR INSIDE IT OR NOT.



2) PARKING LOT VIDEO: IT IS USED TO FIND THE REAL TIME EMPTY SPACES IN THE PARKING LOT AND WILL BE USED TO TELL HOW MANY EMPTY SPACES ARE CURRENTLY AVAILABLE.

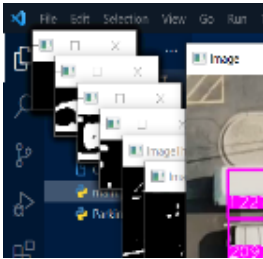


CODE EXPLANATION AND EVALUATION:

THERE ARE TWO ASPECTS TO THE CODING

- 1) SELECTING THE PARKING SPACES IN THE PARKING LOT
- 2) BASED ON THOSE SPACES MAKING DETECTIONS WETHER THERE IS A SPACE AVAILBLE OR NOT?

- WE WILL IMPORT THE VIDEO FEED AND CROP IT.



- WE WILL CROP THE IMAGE AND FIND WHETER THERE'S A CAR INSIDE IT OR NOT? FOR EACH ONE OF THESE CROP PHOTOS WE NEED TO TELL NEED TO TELL WHETHER THIS REGION HAS A CAR PRESENT IN IT OR NOT
- SO HOW CAN WE DO THAT WE CAN DO THAT BY LOOKING AT ITS PIXEL COUNT SO WE NEED TO CONVERT THIS IMAGE INTO A BINARY IMAGE BASED ON ITS UH EDGES AND CORNERS AND THEN FROM THERE WE CAN SAY THAT IF IT DOESN'T HAVE A LOT OF EDGES OR CORNERS THEN IF IT'S A PLAIN IMAGE THEN IT MEANS THERE IS NO CAR BUT IF IT HAS THEN IT MEANS THERE IS A CAR SO HOW CAN WE DO THAT FIRST OF ALL WE HAVE TO DO SOME THRESHOLDING SO TO DO SOME THRESHOLDING WHAT WE WILL DO IS AFTER WE GET OUR IMAGE WE ARE GOING TO CONVERT IT INTO GRAYSCALE.



- IF ANY CROPED FRAME THAT HAS A PIXEL COUNT LESS THAN 900 IT IS TERMED AS AN EMPTY SPACE ELSE IT WILL BE CONSIDERED AS A FILLED SPACE

