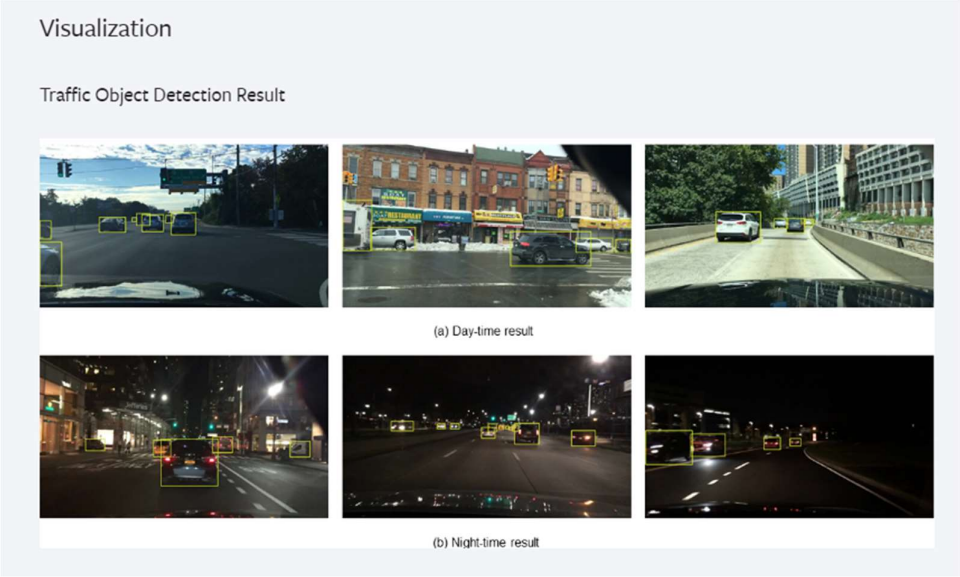
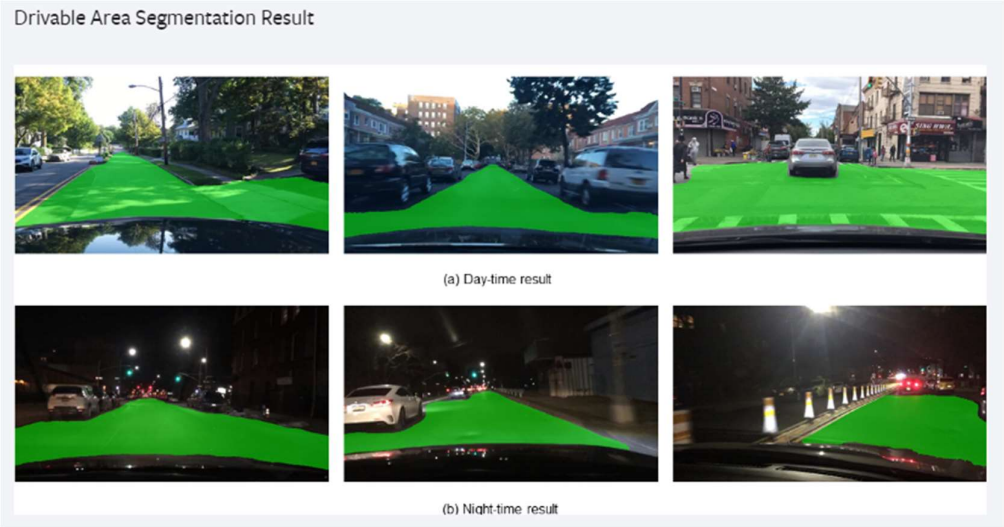
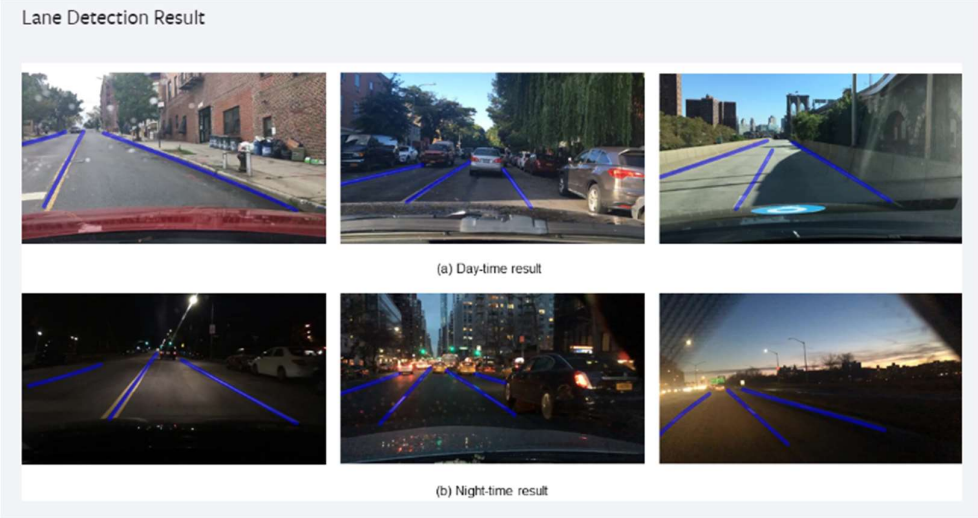
The future of pavement marking and signage is looking very promising. With the advent of deep learning, we are seeing a lot of advances in the ability to detect and recognize various types of markings and signage. There are already several pretrained models available that can be used for line mark, signage and guardrail detection.

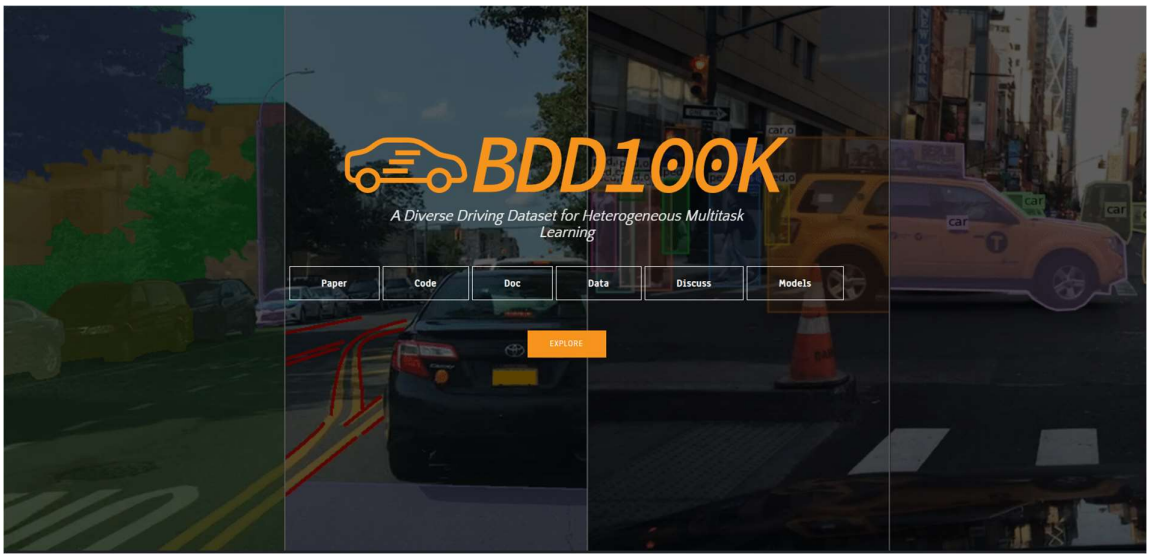
For example, YoloP and Hybridnet are the recent released pretrained models developed specifically for traffic object detection, for detecting drivable areas, for picking up signs, and pavement marking types. There is also a wealth of labelled dataset available to finetune the these models.

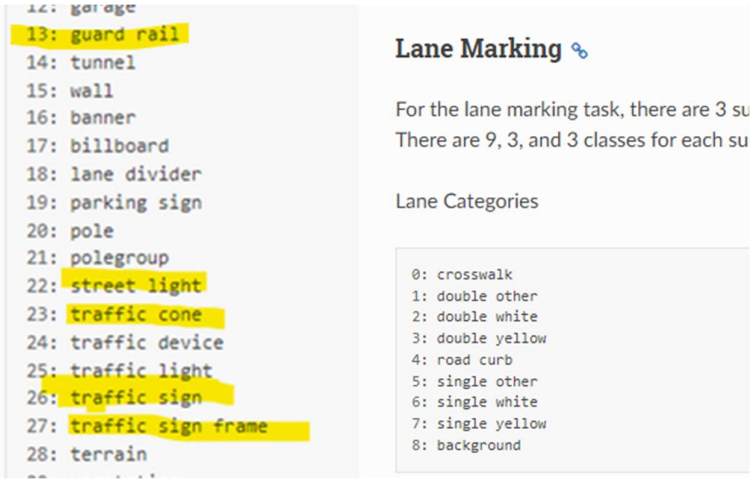






For example, the DBB100K dataset is a diverse driving dataset that were released for the purpose of training a self deep learning model. This dataset contains labelled data such as guardrail, signages, and lane markings.





Currently, the written documentation is not well developed, and there isnt any youtube tutorial explaining the codes.

It will take a while to read through the source codes to get a deep understanding to modify the code to finetune the model. If resource is limited, then the best cost benefit approach is to wait, probably within a few months (or not)when sufficient resource is released, explaining how to finetune these models.

The space of deep learning is evolving very fast, significantly faster than it used to in the past, when AI winter is thought to be expected. However, this is still not the case at this stage of deep learning advancement.