AutoML

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AUTOML SERVICE USED

In order to recognize items in photographs with numerous descriptors, such as weather, scene, time, and objects like traffic signs, cars, and people, among others, we had to tackle an object recognition problem. The "Cloud Vision AI" service from the Google cloud platform was used in this assignment because this is an object classification issue.

Cloud Vision AI is an AutoML service API offered by GCP that recognizes and categorizes images while also identifying the location of objects in them. To train the ML model and generate predictions, the AutoML Vision can receive custom labels. The cars and traffic sign on the street may both be seen in the accompanying image thanks to the Vision AI API.

PERFORMANCE OF THE NLP OR CV SERVICE IN AUTOML

Implementation and usage of Google Vision AI's AutoML service resulted in an accuracy of about 89 percent, which is reasonable but not ideal. The service's poor performance factor will make it more difficult for it to accurately use AutoML Vision to identify emotions, comprehend text, and other properties in images. One of the last procedures needed is optimization in order to raise this service's performance factor.
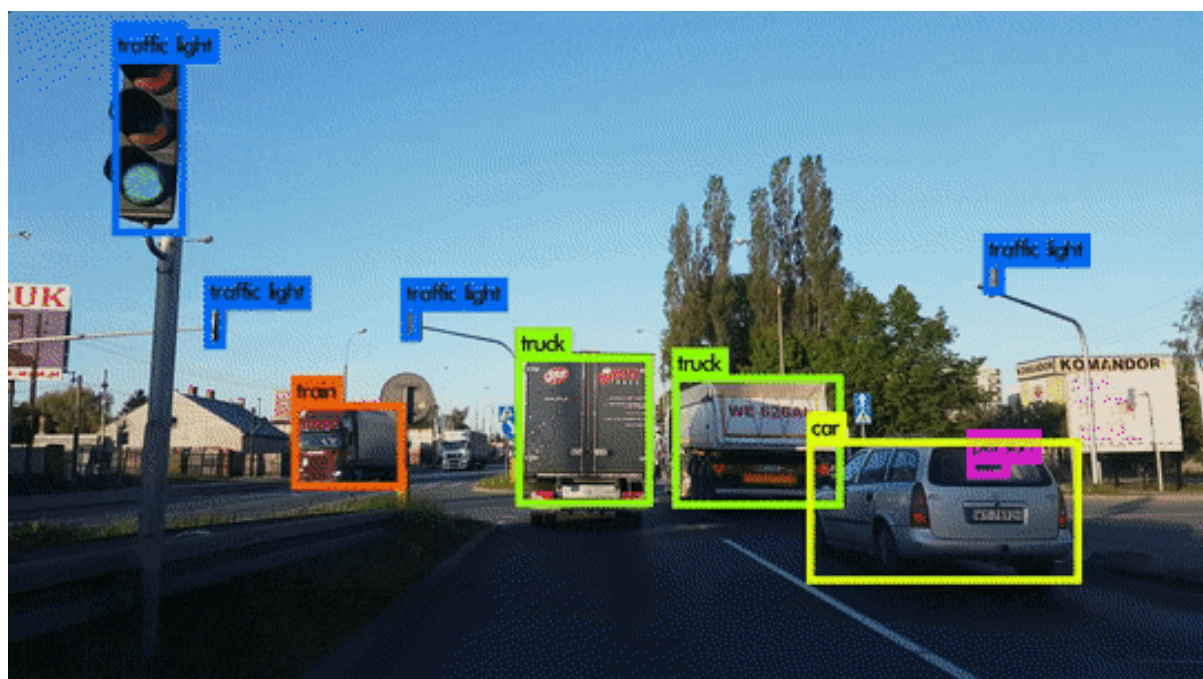
OPTIMIZATION AND IMPROVEMENT OF THE AUTOML MODEL

The Vision AI service API's performance is insufficient for deployment in a production environment. The service's lack of flexibility makes it difficult to further refine the model and raise its performance. As a result, creating a unique neural network model is a good choice for this object recognition challenge. Before creating the model, data can be cleansed and modified. To prevent overfitting and increase the model's accuracy, data augmentation and pre-sizing can be done.

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