Introduction to Google Colab

There is a difficulty when training a CNN model for computer vision problems, which is that it usually requires orders of magnitude more computational power than your laptop can deliver, or takes a very long time, especially considering you will do lots of trial-by-adjusting the network architectures and other parameters. Using GPU is always the solution and highly recommended.

However, not everyone is able to buy an expensive GPU. One popular solution is to pay for training your models on Cloud GPU instances, such as AWS (Amazon Web Services). Among them, the cheapest (or free) is to use Google Colab. Google Colab is a widely popular cloud service for machine learning that features free access to GPU and TPU computing. The main advantages of using Google Colab is as follows:

1. It comes with most important packages pre-installed, therefore you don’t need to worry about environment setup.
2. The biggest advantage is that it provides free support to GPU and TPU.
3. It is very similar to the Jupyter notebook environment. The notebooks are stored on Google Drive.