

Which Machine Learning Environment to choose ?

There are also services that provide Machine Learning Environments remotely "in the cloud".

So many choices ! What is best for me ?

To start: use the environment you installed on your local machine.

But there is another important consideration: the availability of a GPU.

A GPU (Graphic Processing Unit) is a bit of hardware that can be added to a computer

- Originally for gamers ! Fast graphics.
- But *invaluable* for speeding up models that use Neural Networks/Deep Learning.
 - Not *necessary* but highly desirable

- It is likely that your local machine *does not* have a GPU
 - Not a problem for Classical Machine learning
- Remote servers can provide GPU's, at additional cost

Google Colab

There is yet another alternative for a *remote* Machine Learning Environment

- [Google Colab \(https://colab.research.google.com/\)](https://colab.research.google.com/).

This is a very powerful and **free** environment

- It provides access to machines with a GPU
- No setup required by you

The downsides:

- There is no persistent storage, so your work/files disappear after each session
 - You will have to download your work each time
- Software gets updated by Google, not you
 - So the version of a package that you are using may change
 - Some running code may break

In the Deep Learning part of the course

- We will show you how to use Colab
- We will show some tricks to make you more productive in Colab
 - Gaining persistent storage via Google Drive

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