INTRODUCTION TO USING GOOGLE COLAB

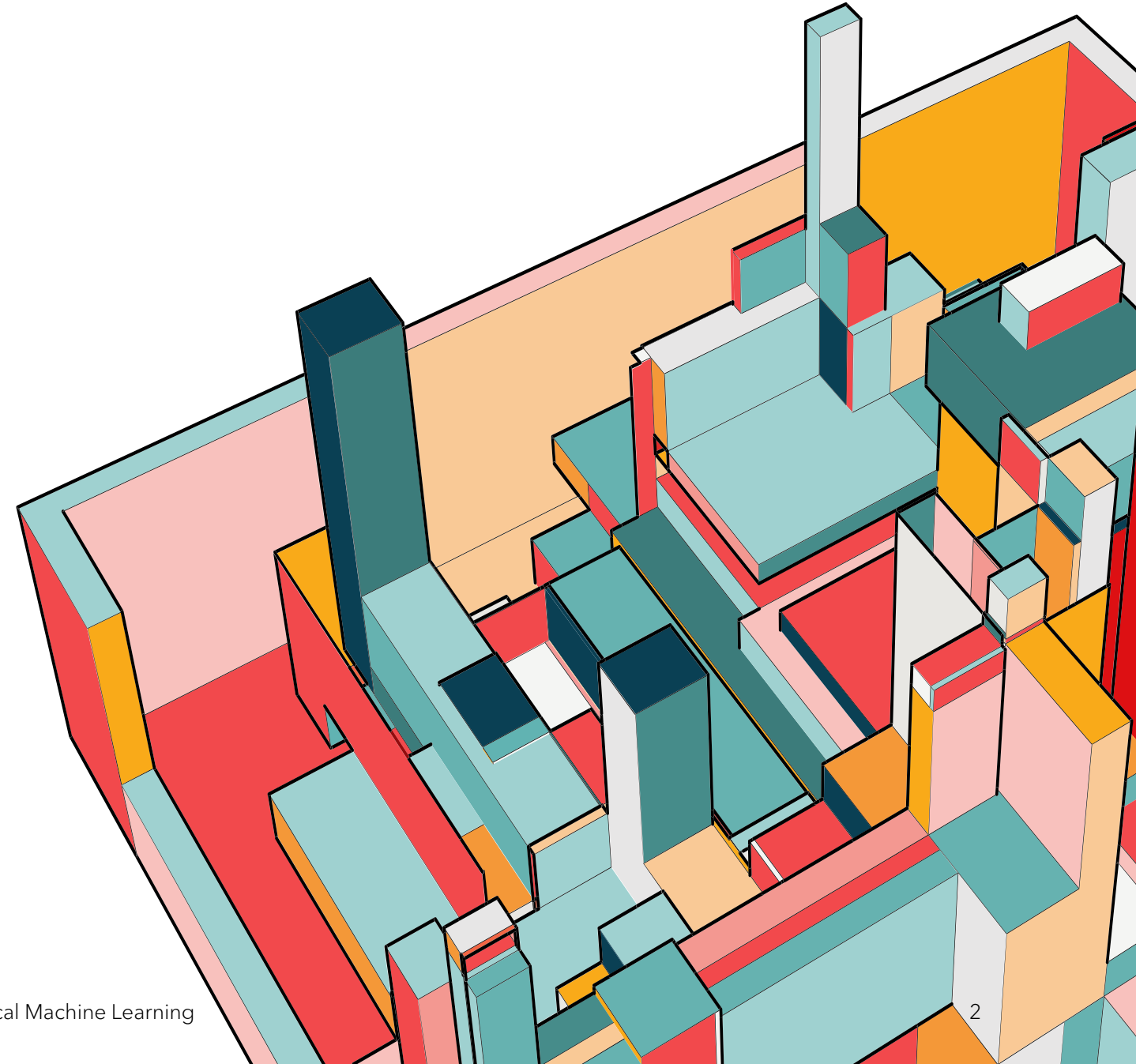
CSC15004 – Statistical Machine Learning

WHAT IS GOOGLE COLAB

Google Colab is a hosted Jupyter notebook service that requires no setup to use, while providing access free of charge to computing resources including GPUs.

Colab allows you to write and execute Python in your brower, with

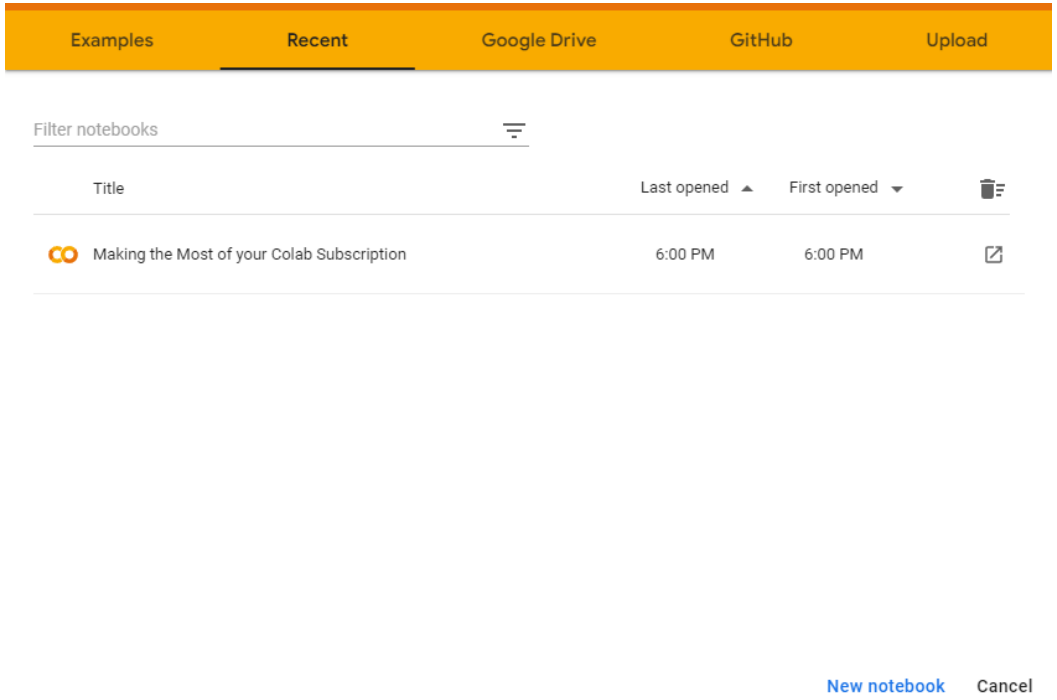
- Zero configuration required
- Access to GPUs free
- Easy sharing



CREATE NOTEBOOK

To start using Google Colab, you first have to log in to your Google account. Then click here to go to Google Colab's home page.

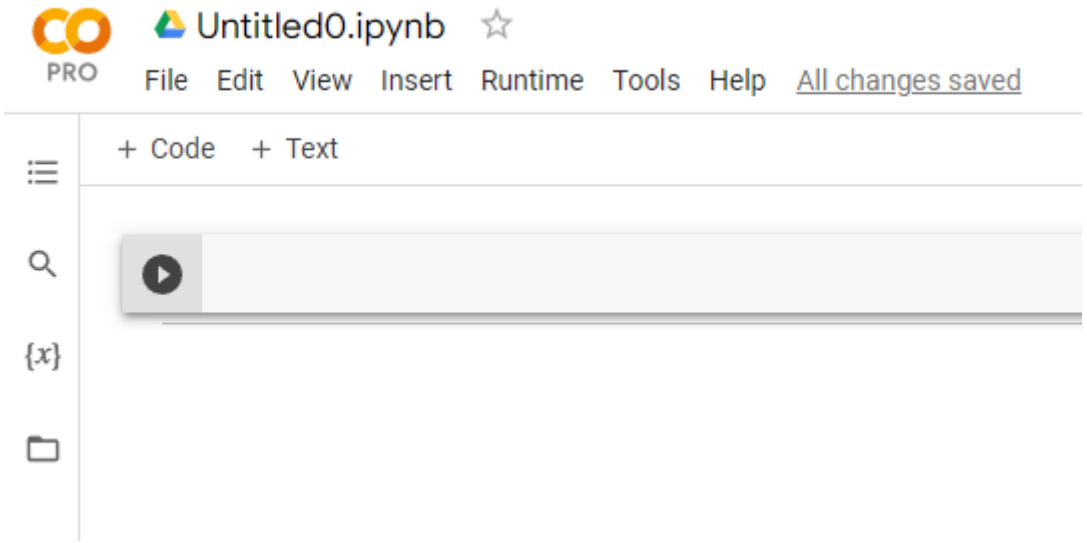
The home screen of Google Colab will look like:



To open a new Python notebook, click 'new notebook' on the bottom right corner.

CREATE NOTEBOOK

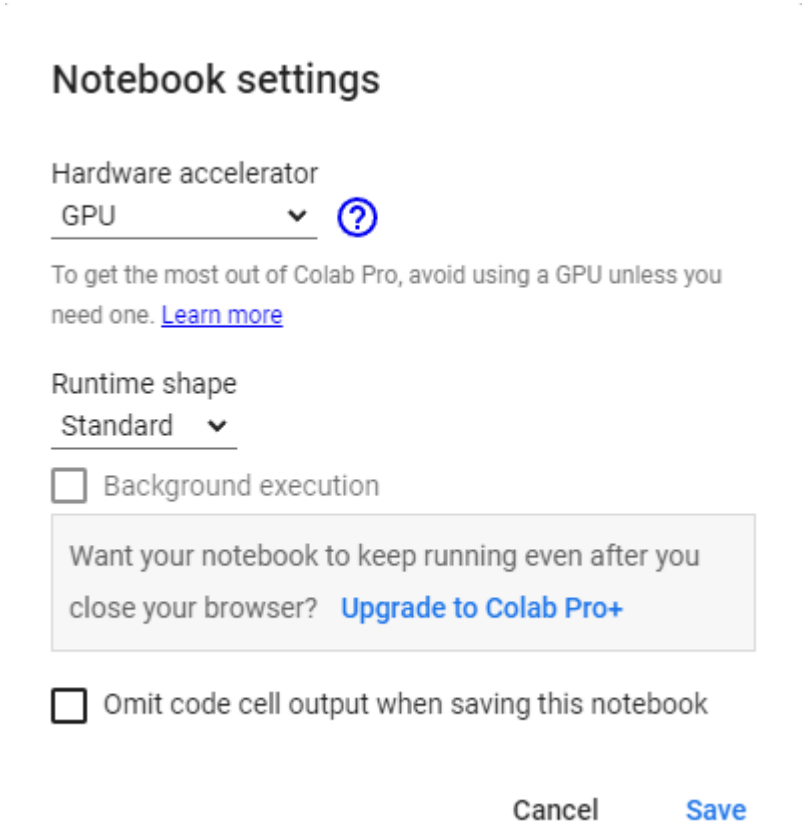
The opened notebook will look like:



A notebook named Untitled0.iypnb is then created and automatically saved to your Google Drive.

ENABLE GPU

It is so simple to alter default hardware (CPU to GPU or vice versa). Just follow Edit > Notebook Setting or Runtime > Change runtime type and select Hardware accelerator.



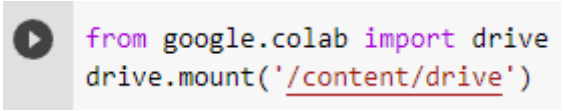
MOUNT YOUR GOOGLE DRIVE ON YOUR RUNTIME

One thing that makes Colab the best of all is that it comes with various libraries that help in accessing lots of Services provided by Google itself. Colab saves all your Jupyter Notebook to Google Drive, and you can share your Jupyter Notebooks very efficiently anywhere.

But the problem arises when we have to work with huge Dataset, As Colab also provides many ways to upload your data to its Virtual Machine on which your code is running. But as soon as you got disconnected all of your Data is lost when you reconnect to new Virtual Machine that is offered to you.

To avoid this problem, you can upload your data to your Google Drive.

To mount Google Drive on Google Colab just use these commands:



PYTHON TUTORIAL WITH GOOGLE COLAB

https://colab.research.google.com/github/cs231n/cs231n.github.io/blob/master/python-colab.ipynb