Computing Environment

Machine Learning Practice

Compute Server

- This semester, we are using the Google Colaboratory
  - Key python packages already installed; others can be installed on the fly
  - Code and data are stored in Google Drive
- You are also free configure your own laptop / desktop machine and use it
  - Class data / code easily available through Google Drive
  - The link to the class Drive is available in Canvas

Prerequisites

See the instructions in the ‘File Access to Google Drive’ section of Canvas/syllabus

- Create a Google account
- Create a shortcut from our shared Drive to your own Drive
- Execute some test code to verify that things are working

Compute Server: Access

Access to Colaboratory:

- https://colab.research.google.com/
- Or you can click on a notebook file in Google Drive (.ipynb)

Colaboratory

- When you start Colab, you are creating a virtual machine instance on a Google server
- This instance is a proper virtual machine: it has a variety of resources (including storage)
- Persistent storage is in Google Drive (don’t forget this!)
  - To access, you must first ‘mount’ your Drive in your VM
  - File stored in other parts of the VM will be lost when it is shut down
- The VM will continue to run as long as you are active. If there is no activity after 60 minutes, then the machine pauses & will be terminated at some point

Setting up Your Own Server

- Python 3.8
- Packages include:
  - Scikit-learn
  - Numpy
  - Pandas
  - Jupyter (lab is nicer than notebook)

- If you need help with this, let's discuss on Slack

Live demonstration …