Machine Learning: Lab. For Introduction to Python

Section 1: x0-x4

Alessandro Chiuso

October 23rd, 2017

Slides courtesy of Fabio Vandin
Main Info

**WHEN:** Monday October 24\(^{th}\), 10:30-12:30

**WHERE:** room Te and Ue

- 40 machines each
- 60 seats each
- If you want to use machine in the lab: you need a DEI account (not Single Sign On), see elearning for link to get one.
- **If you use your own laptop: do not sit in front of a lab machine 😊**
- Te: last name starting with A-L
- Ue: last name starting with M-Z

Will use Jupyter notebook + Python (only need Anaconda)!
Homework 0

1. Go home and install Anaconda (version with Python 2.7):
   - https://www.anaconda.com/download/

2. Go through the following tutorial:
   - http://cs231n.github.io/python-numpy-tutorial/

3. Get used to Jupyter notebooks

4. Go through the tutorial in Jupyter notebooks and in script mode:
   - http://cs231n.github.io/python-numpy-tutorial/
BEFORE THE LAB:
• Did you do the tutorial? Required **before** the lab
• You can bring your own machine **IFF** you have installed Anaconda
• Run (and understand!) the Jupyter notebook “*Pyhton Basic Info*” (available on elearning)

WHAT WILL WE DO?
• Go through a Jupyter notebook with structure similar to what you may get for a homework
• Some parts: will do together
• Other parts: you will have some time to do them, then either:
  • Together
  • At home + solution posted online later on
Tutors

• Ing. Leonardo Pellegrina
  • email: leonardo.pellegrina@phd.unipd.it

• Ing. Giulia Prando
  • email: prandogi@dei.unipd.it
Log-in

- **Te:** after starting the machine, you should choose to login on the ‘**local**’ system (that is not the default option)
- **Ue:** only option is ‘**remote**’ login

- **Use Linux!** (No Anaconda or Jupyter in Windows)

- **after logging in in Linux,** open a terminal and **run** the following command:

  ```
  export PATH=/nfsd/opt/anaconda2/bin:$PATH
  ```

  Without running such command, the Jupyter notebook may not be accessible.
Using a Jupyter notebook

• Download files from elearning course’s website

• In terminal, in the folder where with the files for the lab, to start a jupyter-notebook run:

jupyter-notebook notebookName

• The first time you run Python code in a Jupyter notebook in the department, you may get a warning (something that looks like: “UserWarning: Matplotlib is building the font cache using fc-list. This may take a moment.”) Do not panic, and just wait for system to finish.