Python Workshop

**When:** October 16, 2019 (5 - 7 PM)

**Where:** 19 Oxford St. (Cruft Lab), CruftLab 309

**Who is this for:** This is an introductory tutorial on working with data. This is aimed primarily at Harvard researchers and students who are already familiar with python but want to learn about handling data in python.

**Registration for the workshop:**

You are encouraged to register. This will allow us to inform you in case we need to change or cancel the workshop. To register, please visit:

https://harvard.az1.qualtrics.com/jfe/form/SV_6Suz4cFRKiz0DlP

**What are the topics:**

This tutorial will be an introduction to working with data in python via the numpy/pandas modules. Some of the topics we might cover include:

- Different ways of working with data in Python
- Data handling via dataframes in Pandas

**Python installation and Jupyter Notebook on your laptop:**

The tutorial material will be Jupyter notebooks. If you want to work through the tutorial material during the workshop, bring your laptop with Anaconda version of python installed.

Please visit the link below for Anaconda installation and introduction to Jupyter:

Anaconda Python Installation and Jupyter Notebook

A second option you could try would be to use the Google Colab (https://colab.research.google.com). It requires a google account. If you want to try this, please familiarize yourself with it before the workshop.

**Tutorial Materials**

The rest of this page assumes you have installed Anaconda and the various python binaries are available in a terminal (Mac and Linux) or command prompt (Windows). Download the Jupyter Notebooks below and put them in the same directory.

- introduction-to-pandas-kumar.ipynb
- nyc_complaints_sql.ipynb
- python_tutorial_multiple_events_kumar.ipynb
- 311_Service_Requests_for_2009_part_01.csv
- multiple_events.csv
- total_petroleum_consumption_thousand_barrels_per_day.csv

**introduction to Python**

If you are new to python and want a basic tutorial, you can search the web or youtube for a tutorial. Here is an elementary tutorial:

https://youtu.be/rkx5_MRAV3A

After watching it, you can go through the introductory python jupyter notebook included below:

- python-basics-kumar.ipynb

**Video Tutorial on Jupyter Notebook:**

https://youtu.be/HW29067qVWk

**Uploading the notebooks to Jupyter**

You are not required to have the notebooks unless you are trying to follow along. To upload the downloaded notebook to jupyter, start jupyter notebook and click on the upload button (red arrow on the image below). You should be able to navigate to the directory (folder) that contains the downloaded notebook.
custom.css — for changing the appearance of the notebook (optional)