Data Analytics Using Python - U Bologna

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Course Preliminaries

Before the first day of class please:

- ➔ Download and Install Anaconda Python 3.7+ Individual Edition: https://www.anaconda.com/products/individual
- ➔ Familiarize yourself with Google Colaboratory Python Notebooks: https://colab.research.google.com/notebooks/intro.ipynb
- ➔ Download and install the Atom Code Notebook: https://atom.io/
- ➔ Join our Slack Channel: https://join.slack.com/t/newworkspace-dg82363/shared_invite/zt-iwxjjq1c-PHrKmxHzrn~DvDDPx~yjDQ

Course Materials*

To be distributed during class.

Course Schedule

Tuesday, November 3 (4 hours): Introduction to Python

Recommended Reading Before Class (Available Online)

- Python for Everybody by Dr. Charles R. Severance
  - Chapters 1-6, 8, 9.
  - Link: https://www.py4e.com/html3/

Live Session: Lecture (Online)

I. Getting started with Python:
    - Why python?
    - Introduction to Anaconda Python.
    - Introduction to Python (Jupyter) notebooks.
II. Python basics and data structures:
    - Variables: numbers, strings values, using variables.
    - Lists and loops: lists basics, simple loops, pythonic loops.
    - Logical statements in python.
    - Using and creating dictionaries.
    - Creating functions.

Friday, November 6th (4 hours): Web Scraping and Natural Language Processing

Recommended Reading Before Class (Available Online)

- *Machine learning with scikit-learn: https://jakevdp.github.io/PythonDataScienceHandbook/05.00-machine-learning.html*
- *Natural language processing and sentiment analysis: https://colab.research.google.com/drive/1Y-vJ49-Hw6zFkUx1ON1OYB4euC4vNKKJ?usp=sharing*

Live Session: Lecture (Online)

I. Scraping social media data with APIs.
II. Intro to natural language processing.
III. Sentiment analysis.