

SETTING UP YOUR PYTHON ENVIRONMENT FOR ML

UNIT TWO

SEP 15, 2019

AYUSH THAKUR

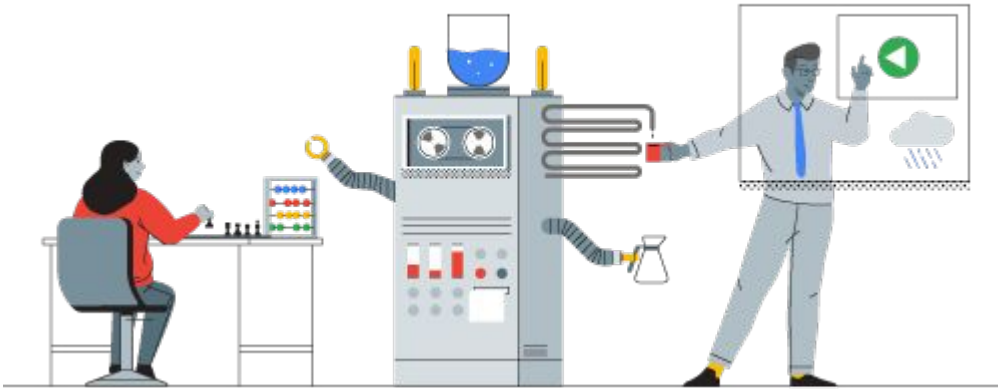
Intro to ML with DSC NSEC

About Me

- Deep Learning for Computer Vision
- Chair, IEEE EDS Student Branch Chapter, NSEC
- Winner of few competitions.
- Human <3



Chapter 4: Setting up your Python environment for ML.



- 1.1 Introduction
- 1.2 Wrangling the Anaconda
- 1.3 Tools at Disposal
- 1.4 How to avoid headache?
- 1.5 Conda and Concepts

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Disclaimers

- Tools that I use.
- Practices that I follow.
- There is no right and wrong. It's your choice.
- It will certainly help in your ML journey.

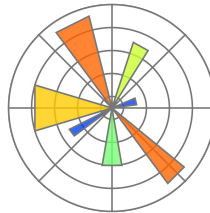
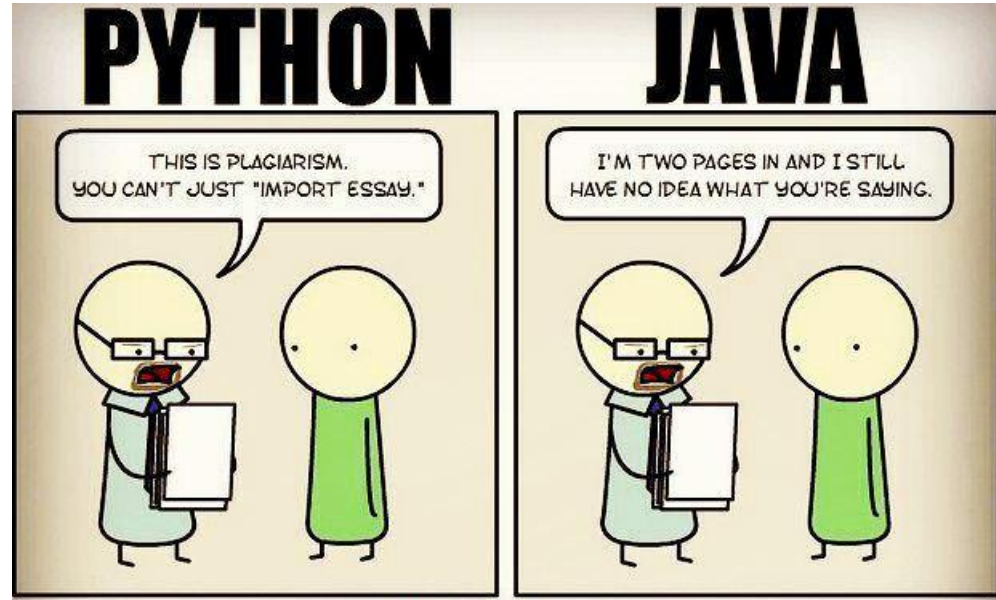
Some Why?

- Why Python for ML?
- Why it's easy to screw up everything?
- Why even bother about managing stuffs?



Why Python for ML?

- Simplicity
- Platform Independent
- Community and Support




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Python Package Manager

- PyPI - Python Package Index
- Anaconda by Continuum Analytics



Continuum Analytics Anaconda

ProductsWhy Anaconda?SolutionsResourcesCompanyDownload











Anaconda Distribution

The World's Most Popular Python/R Data Science Platform

[Download](#)

The open-source [Anaconda Distribution](#) is the easiest way to perform Python/R data science and machine learning on Linux, Windows, and Mac OS X. With over 15 million users worldwide, it is the industry standard for developing, testing, and training on a single machine, enabling *individual data scientists* to:

- Quickly download 1,500+ Python/R data science packages
- Manage libraries, dependencies, and environments with [Conda](#)
- Develop and train machine learning and deep learning models with [scikit-learn](#), [TensorFlow](#), and [Theano](#)
- Analyze data with scalability and performance with [Dask](#), [NumPy](#), [pandas](#), and [Numba](#)
- Visualize results with [Matplotlib](#), [Bokeh](#), [Datashader](#), and [Holoviews](#)

		NumPy		
pandas				
		H ₂ O.ai	TensorFlow	CONDA

Continuum Analytics Anaconda

Install:

<https://www.anaconda.com/distribution/>



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Tools At Disposal

- Old school Python IDLE
- Jupyter Notebook
- IPython
- Anaconda Navigator



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Python Environment Manager

- Virtualenv
- Pyenv
- Conda env

WebDev

- Django
- Flask
- SQLAlchemy
- Jinja2
- Requests

DataScience

- TensorFlow
- Keras
- Pandas
- Matplotlib
- Numpy

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Conda Concepts

- Conda Package
- Conda Environment
- Conda Channels

Conda Commands

- Conda Search
- Conda Update
- Conda Install
- Conda List
- Conda Create

Thank You

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Connect: [Linkedin](#)

Find slide on github: [ayulockin/talks](#)