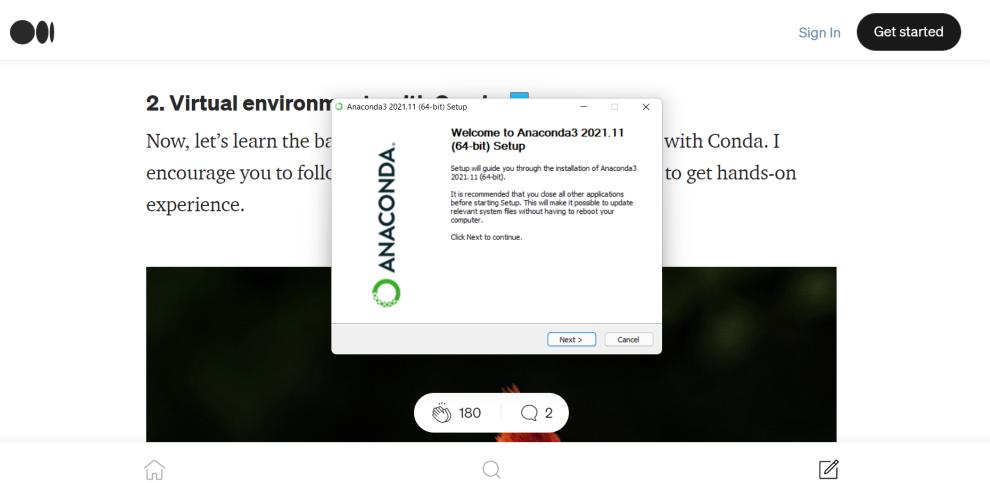


Preparação de ambientes para IA usando Python

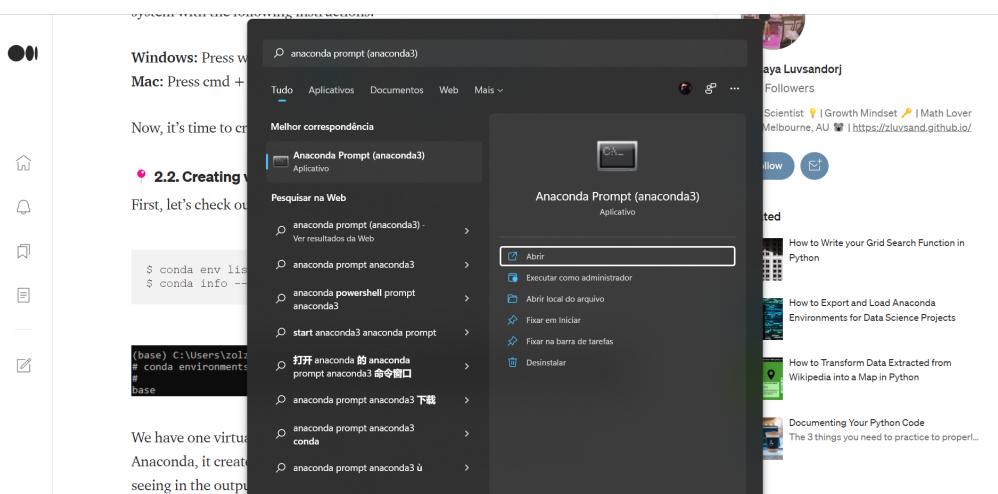
Rafael da Silva Lopes - 201906840004

1. Configuração de ambiente virtual Python

- Para isso, utilizei a plataforma [Anaconda](#), no Windows 11. Ao instalar a plataforma Anaconda, já temos acesso ao Conda (gerenciador de pacotes e de ambientes virtuais) e ao Jupyter. A instalação é simples e pode ser feita conforme a [documentação dos desenvolvedores](#).



- Após a instalação, deve-se abrir o Anaconda Prompt, para que possamos utilizar os recursos do Conda.



- Com o prompt aberto, foi feita a criação do ambiente virtual, considerando a utilização de uma versão Python (3.8) compatível com o Tensorflow v2.

```
(base) C:\Users\rafae>conda create -n teste python=3.8 -y
```

A screenshot of the Anaconda Prompt window titled "Anaconda Prompt (anaconda3)". The command "conda create -n teste python=3.8 -y" is visible in the terminal. The terminal output shows the process of creating a new environment named "teste" with Python 3.8.

d. Ativamos o novo ambiente virtual.

```
■ Anaconda Prompt (anaconda3)

(base) C:\Users\rafae>conda env list
# conda environments:
#
base          *  C:\Users\rafae\anaconda3
teste          C:\Users\rafae\anaconda3\envs\teste

(base) C:\Users\rafae>conda activate teste

(teste) C:\Users\rafae>conda env list
# conda environments:
#
base          C:\Users\rafae\anaconda3
teste          *  C:\Users\rafae\anaconda3\envs\teste
```

e. Com o ambiente virtual configurado, instalamos nele os pacotes solicitados.

```
■ Anaconda Prompt (anaconda3)

(teste) C:\Users\rafae>conda install numpy scikit-learn pandas tensorflow matplotlib
```

2. Download e execução dos [notebooks do livro-texto](#)

a. Foi utilizado o sistema de versionamento **Git** para baixar os códigos do livro texto.

```
■ Anaconda Prompt (anaconda3) - conda install numpy scikit-learn pandas tensorflow matplotlib - git clone https://github.com/ageron/handson-ml

(teste) C:\>git clone https://github.com/ageron/handson-ml
Cloning into 'handson-ml'...
remote: Enumerating objects: 1715, done.
remote: Counting objects: 100% (159/159), done.
remote: Compressing objects: 100% (97/97), done.
Receiving objects: 38% (666/1715), 40.72 MiB | 769.00 KiB/s
```

b. Com o download concluído, executamos um dos notebooks

```
■ Anaconda Prompt (anaconda3) - conda install numpy scikit-learn pandas tensorflow matplotlib - jupyter notebook 01_the_machine_learning_landscape.ipynb

(teste) C:\handson-ml>jupyter notebook 01_the_machine_learning_landscape.ipynb
[I 22:19:40.364 NotebookApp] Writing notebook server cookie secret to C:\Users\rafae\AppData\Roaming\jupyter\runtime\notebook_cookie_secret
[W 2022-03-21 22:19:41.744 LabApp] 'file_to_run' has moved from NotebookApp to ServerApp. This config will be passed to ServerApp. Be sure to update your config before our next release.
[W 2022-03-21 22:19:41.744 LabApp] 'file_to_run' has moved from NotebookApp to ServerApp. This config will be passed to ServerApp. Be sure to update your config before our next release.
[I 2022-03-21 22:19:41.755 LabApp] JupyterLab extension loaded from C:\Users\rafae\anaconda3\lib\site-packages\jupyterlab
[I 2022-03-21 22:19:41.755 LabApp] JupyterLab application directory is C:\Users\rafae\anaconda3\share\jupyter\lab
[I 22:19:41.756 NotebookApp] Serving notebooks from local directory: C:\handson-ml
[I 22:19:41.756 NotebookApp] Jupyter notebooks are served on http://localhost:8888
[I 22:19:41.756 NotebookApp] Jupyter notebooks are served on http://127.0.0.1:8888
[I 22:19:41.756 NotebookApp] or http://[::1]:8888
[I 22:19:41.762 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 22:19:41.799 NotebookApp]

To access the notebook, open this file in a browser:
  file:///C:/Users/rafae/AppData/Roaming/jupyter/runtime/nbserver-4300-open.html
Or copy and paste one of these URLs:
  http://localhost:8888/?token=24eb62d82b69ea2c3bfff4b0ca14f4edaa2f82060fe602a
  or http://127.0.0.1:8888/?token=24eb62d82b69ea2c3bfff4b0ca14f4edaa2f82060fe602a

Como você deseja abrir este arquivo?
Continuar usando este aplicativo
Google Chrome
```

The screenshot shows a Jupyter Notebook interface. The title bar reads "jupyter 01_the_machine_learning_landscape (unsaved changes)". The menu bar includes File, Edit, View, Insert, Cell, Kernel, Widgets, Help, Not Trusted, Python 3 (ipykernel), and Logout. Below the menu is a toolbar with icons for file operations like Open, Save, Run, and Kernel. The main content area displays a section titled "Chapter 1 - The Machine Learning landscape" with the sub-instruction "This is the code used to generate some of the figures in chapter 1." It includes a "Run in Google Colab" button and a note about the code being for the 1st edition. A warning at the bottom states: "Warning: this is the code for the 1st edition of the book. Please visit <https://github.com/ageron/handson-ml2> for the 2nd edition code, with up-to-date notebooks using the latest library versions." The code cell contains setup code for Python 2 and 3, imports for numpy, matplotlib, and random, and a call to np.random.seed(42).

```
In [1]: # To support both python 2 and python 3
from __future__ import division, print_function, unicode_literals

# Common imports
import numpy as np
import os

# to make this notebook's output stable across runs
np.random.seed(42)

# to plot pretty figures
%matplotlib inline
import matplotlib as mpl
import matplotlib.pyplot as plt
```

3. Conta no Github

- [Link para a conta](#)
- [Link para repositório da disciplina](#)

4. Conta no Keagle

- [Link para a conta](#)
- Submissão em competição

