Instructions for running python

1. I recommend using VisualStudio Code (not VisualStudio!) as an editor, while not using Jupyter Notebooks: https://code.visualstudio.com/. All code editors are fine though.
2. Navigate to https://www.anaconda.com/ and download miniconda
    a. This is an installer for a package manager called conda. Python is the programming language but there is a whole ecosystem including code editors, interactive notebooks and millions of packages. Packages are scripts that others wrote for you like for instance scikit-learn which is a package that includes a lot of machine learning tools. You will get to know all the different things in python over time.
    b. Install miniconda. IMPORTANT ON WINDOWS: Make sure you set the option for adding miniconda to your PATH environment variable during the installation process, so that the conda commands are found in the command prompt. The default option for this is not to add it, so make sure to CHECK THAT BOX when it comes up. A Restart might be required for the PATH variable to update.
    c. If your Terminals start throwing errors about the execution of your profile: Open a terminal as an administrator and execute the command "`Set-ExecutionPolicy -ExecutionPolicy RemoteSigned`". Close and open your previous terminal again.
3. Create a virtual environment. A virtual environment lets you build your own environment. This way you can avoid changing your whole system. Possibly incompatible packages/versions for different projects can be separated.
    a. Open a terminal in VSCode(Terminal→New terminal) or elsewhere(Terminal, Windows Powershell, Anaconda Powershell/...)
    b. Type "conda create -n test_env" to create a new virtual environment test_env, maybe you'll have to type "conda init" before. The new environment won't have any packages, so that we can get used to creating our own environment.
    c. Activate the environment with "conda activate test_env".
    d. Install a few basic packages: "conda install numpy", which install a powerful library for calculations with vectors, matrices, and tensors. "conda install notebook" to install Jupyter Notebook, a code editor, which lets you execute python commands step by step.
4. Open a jupyter lab notebook
    a. Type "jupyter notebook"
    b. Load the file 0_Python_Crashurs.ipynb into jupyter and run the individual cells

If all of this fails and you happen to have a google account, you can also run a jupyter notebook very flexibly on the google cloud here: https://colab.research.google.com