

CRASH COURSE PYTHON FOR DATA SCIENCE - ALL MATERIALS LIVE HERE!

University of Glasgow - Glasgow International College

GIC PM-617 Module: Practical Training for Science and Engineering Research

This is a repository for materials used for a module on quantitative research resources, taught at Glasgow International College at The University of Glasgow.

WHAT IS PYTHON?

Python is a powerful programming language used for many different applications. A huge community around this open source language has created quite a few tools to efficiently work with Python for Data Science. Python is becoming the language of choice of anyone interested in analysing data.

PREPARATION BEFORE THE SEMINAR

To follow the Python tutorial during our seminar, you will need to have a few things installed.

The reason we do this **before** the seminar is because it takes time. And we only have two hours. So I would much rather we spend those hours actually learning Python and its application in Data Science instead of troubleshooting a Python installation gone wrong!

That's why I'm asking you to go through this initial steps **before** the seminar. So we can get started right away!

Python instalation and setup for Mac & Windows

To install and setup Python for Mac and Windows, [follow the steps in this tutorial](#).

When you are finished, come back and continue with these instructions.

Visual Studio Code

To open the folder with the Workshop and exercise notebooks, you will need an IDE (Integrated Development Environment). There are many popular IDE environments for Python development. But I use Visual Studio Code.

Why VS Code?

1. VSCode has support for most of the popular languages. 😎
2. The community is huge and has plugins for every kind of language. ❤️
3. It has integrated terminal for faster development and takes less storage and has low memory footprint. 😊

To install VS Code you will have take to follow some steps:

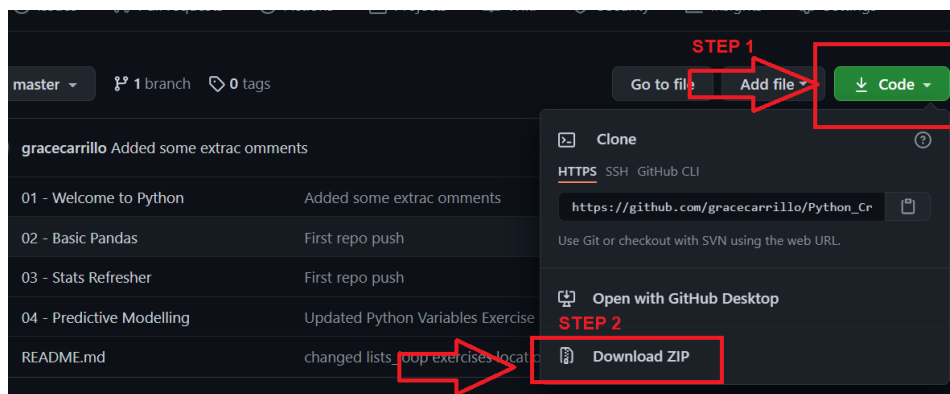
- If you use Windows, you can follow the instructions on how to install VS Code in your laptop or PC [on this tutorial](#)..
- If you use a Mac, [you can follow this tutorial instead](#)..

Once you have finished installing VS Code, you can continue with these instructions.

Download the materials into your local working environment (fancy way of saying your laptop!).

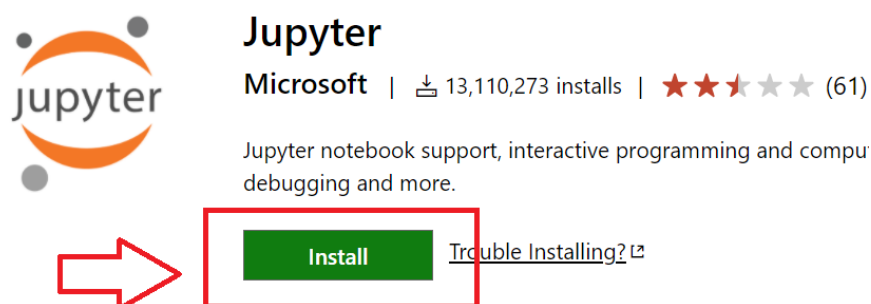
1. Download this repository (https://github.com/gracecarrillo/Python_Crash_Course) as a zip file, save it in the folder you will be working on, and unzip it. If you're not sure how to do this, see [this resource about how to unzip a file in a Mac](#), and [this resource for Windows](#).

Make sure you save this folder in a location you will remember.

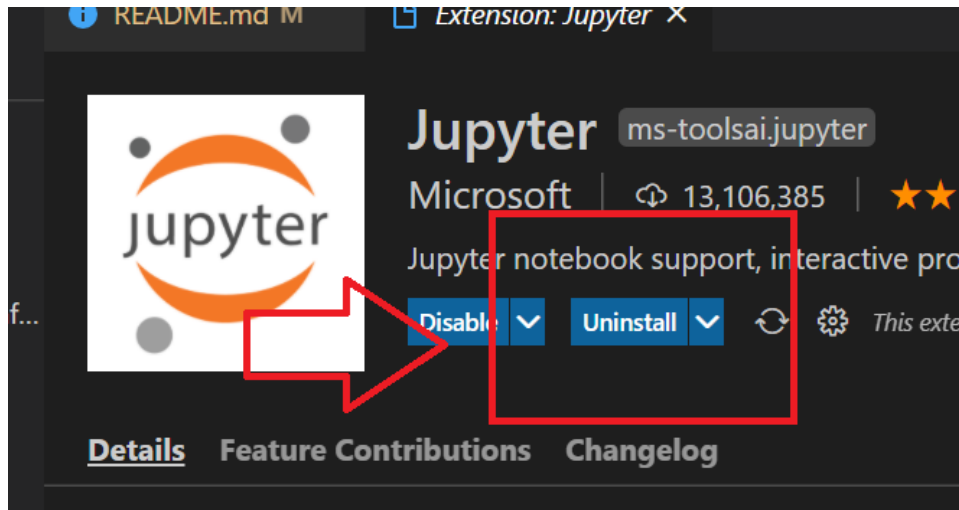


2. You also need to install the Jupyter Extension to work with the notebooks that we will use during this workshop. These notebooks are called Jupyter notebooks, and they are useful to combine python code and text in the same file. You can learn more about Jupyter notebooks [by following this link](#)..

To begin adding the Jupyter Extension to your VS Code IDE, [follow this link](#).. You will see the following window:



Click *Install*. When a pop-up window asks you if you want to open Visual Studio Code, just click the button to open it. This will take you to your VS Code. You will see the following, except that for you, the button will say *Install* instead of *Uninstall*, like it does for me.



Open the materials.

You should now be ready to get started! Verify this by navigating to the [Python_Crash_Course](#) folder you downloaded. Go to *File -> Open Folder ...*

Select the folder and click *Open*. You should now be able to see all the folders for this course.

Happy learning!

WHAT TO DO AFTER THE SEMINAR

1. Complete the Workshops and Exercises in order. Do as many as you can
2. E-portfolio Evidence: Just focus on going through the exercise notebooks and finish as many as you possibly can. Then, write a short 500-1000 words reflection about the course and what you learned. If you finished all exercises, how was it? If you didn't, why? And this, accompanied by screenshots of your local setup with the exercises.

Course Instructor: [Graciela Carrillo](#)

Module Coordinator: [Dr. Molly Huq](#)

Other Resources

[Python Beginner Tutorial](#). Full playlist: 26 videos

[Learn Python - Full Course for Beginners](#)

[Intermediate Python](#).

[Python Object Oriented Programming \(OOP\)](#). Full playlist: 6 videos