HEYNE TILLETT STEEL

Python

The Key to Automated Design

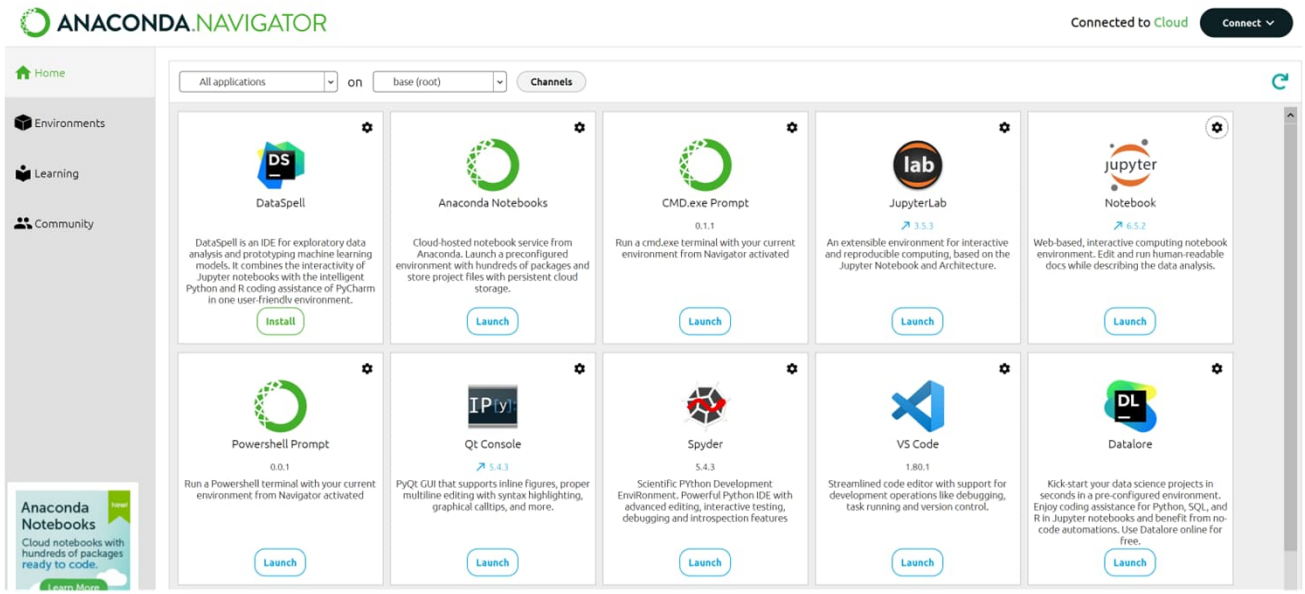
Paul Scott

Getting Started in Python

This document will explain the main apps you will need for your Python journey and how to use them.

There are 3 primary apps that you will be using:

+ Anaconda
+ Visual Studio Code (VS Code)
+ Jupyter Notebooks



Anaconda – Contains all the Python apps and setup installation you will need

VS Code

VS Code – Where you will be coding

jupyter Notebook

Jupyter Notebook – Where you will learn Python

Anaconda

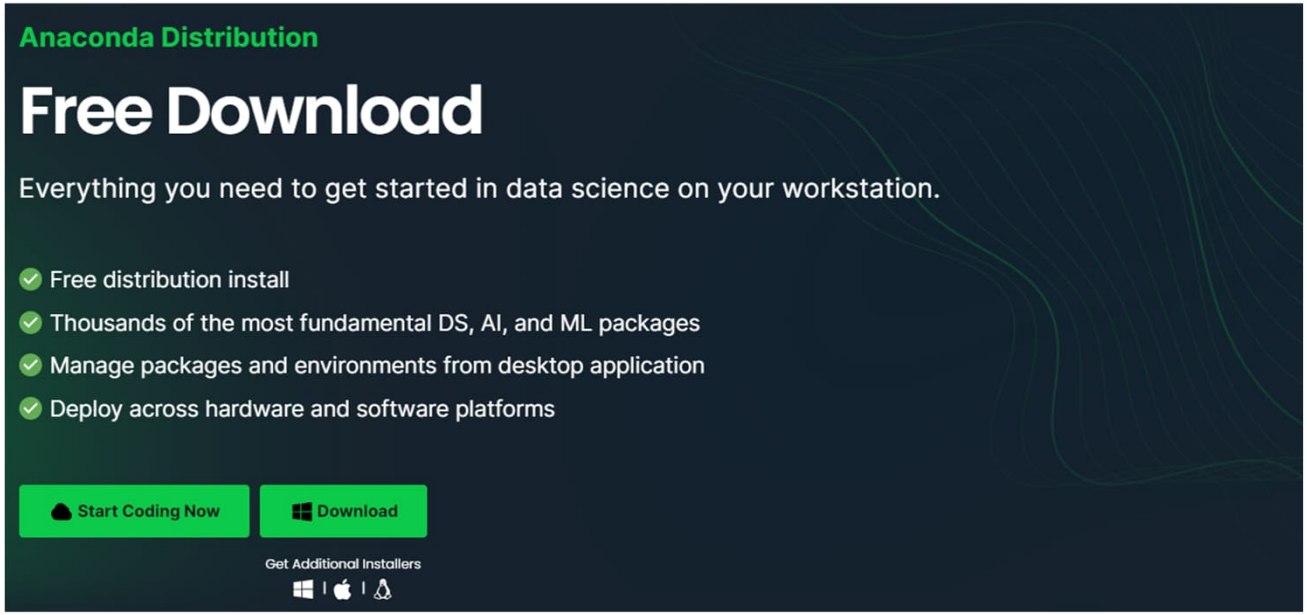
Anaconda is the simplest way to install what you'll need to run Python on your PC.

Installation –

https://www.anaconda.com/download#downloads

This will install all the apps you will need, including VS Code and Jupyter Notebooks.

These apps will then be accessible through your Windows Search, or by opening Anaconda Navigator.



Hit download to get started

Jupyter Notebook

Jupyter Notebooks are a handy web-based environment to combine written text with executable Python code, perfect for tutorials.

They are the environment that the course 'Structural Engineer's Python Book' is run.

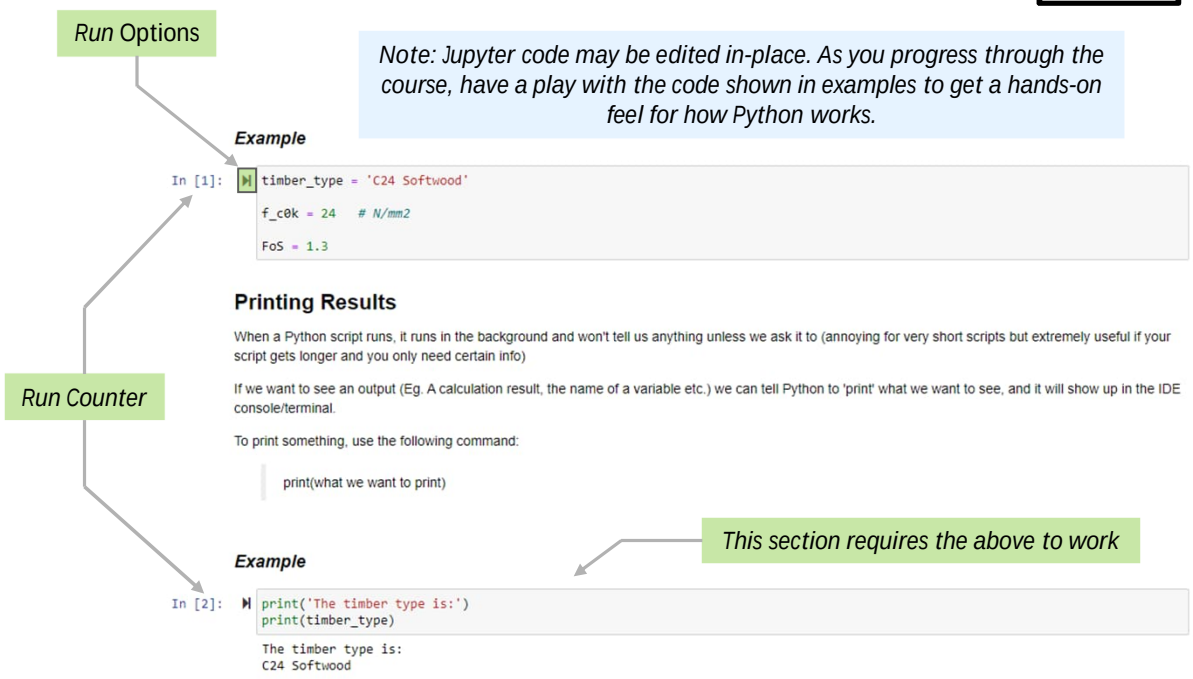
Jupyter Notebooks are denoted by the '.pynb' extension. To run, open Jupyter Notebook from Windows Search or Anaconda Navigator, and navigate to the notebook through the file explorer.

Save tutorial notebooks in your OneDrive to access them through Jupyter.

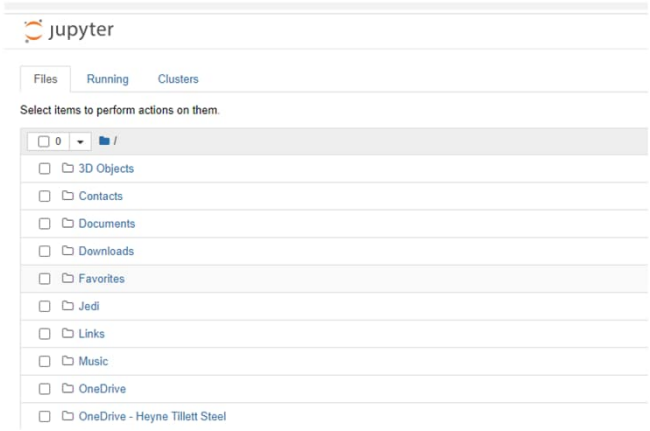
When working on a Jupyter Notebook, run code sections with the button on the left of the section, or by hitting 'Shift' + 'Enter'. This is how you may see the output of coded sections.

Code sections are not independent. If they use items from a previous section, they must be run in the correct order. Jupyter shows the order in which sections have been run to help you with this.

See 'Additional Notes on Jupyter Notebooks' for more information.



Extract from 'Structural Engineer's Python Book'



Navigation Menu of Jupyter Notebook

VS Code

VS Code is HTS' recommended Integrated Developer Environment (IDE) to create project scripts in Python.

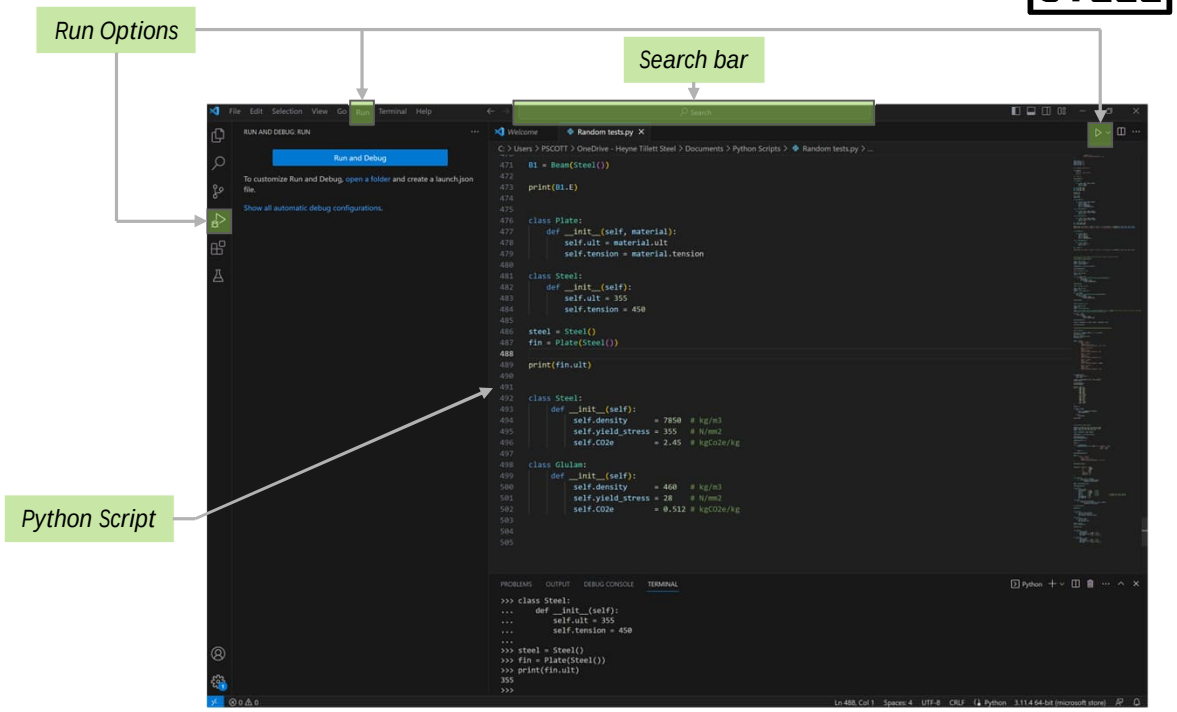
While Jupyter is great for tutorials and the like, VS Code is far more flexible and friendly towards building working tools.

+ To get started, Open via Windows Search or Anaconda Navigator.
+ Next, Install the latest version of Python from the Microsoft Store.
+ Finally, in VS Code, navigate to the search bar at the top, enter '> Python: Select Interpreter', and choose the version of Python you just installed.
+ Et voila, you are ready to code in Python.

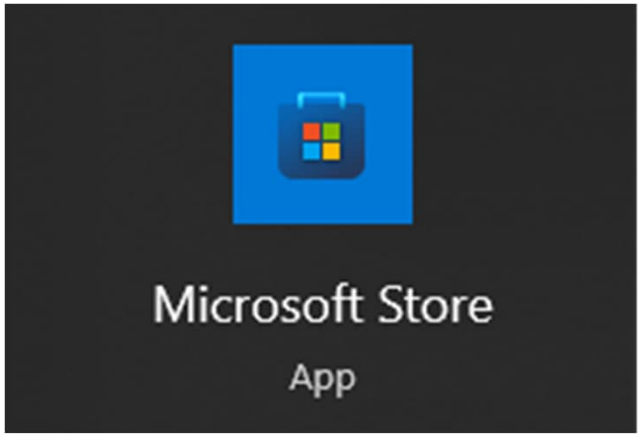
To Run a script in VS Code, you may:

+ Use the 'Run' tab of the toolbar
+ Right-click your script and select 'Run Python'
+ Click the Run button in the top right
+ Use Run and Debug on the left-hand-side of your screen.

See 'Additional Notes on VS Code' for more information.



VS Code Layout



Microsoft Store

Python App – Choose the latest version

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Ready to Go?

Copy ‘Structural Engineer’s Python Book’ to your OneDrive to get started

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