



Python Basics and Your System

Note: if you have trouble getting Jupyter (if required) or starting a notebook server, you may need to consult your systems administrator for help. For other problems, try your favourite search engine

- Running Python code or a Notebook

- Before starting, we should make sure we can run Python code and Jupyter notebooks
- We should also make sure we're OK with the command line so we can run the notebook converter, and run some simple commands we might need
- We've provided some code etc - these are coloured **blue and bold** within this document to make them easier to spot. Directory names in our materials are *blue and italic*

Info:

If you've never used the command line, there are good online resources such as <https://www.codecademy.com/learn/learn-the-command-line> to get started

Try:

Open a terminal (this may be called Terminal, Konsole etc). Navigate to the directory where you want to work and have downloaded the example codes. Unpack them

Navigate to the *GettingStarted* directory. Here you should find a Python script and a Jupyter notebook.

Run the example Python script, called **HelloWorld.py**. You should be able to run this with `python3 HelloWorld.py` or with `./HelloWorld.py`

If the second method doesn't work, try using the `chmod u+x` command to make the script executable first. If you get a "bad interpreter" error, you might need to change the first line (you might need `/bin/env` not `/usr/bin/env`, or `python` not

python3). You can find out more about these things using your favourite search engine

Start a Jupyter notebook server, and then open the example notebook. If you are starting this remotely, you might want to use `--no-browser`. Make sure this part works! We'll need it for the core materials! We'll look at what this notebook does in the next segment

- Finding out about your system

- Before we start, it's good to know about some of the functions you can use to find out about the system your Python code runs on and the packages you have.

Try:

We've provided a Notebook called "[FindingOutAboutSystem.ipynb](#)". Try running this and check it all makes sense. You might want to look up anything which is new or tricky before starting the rest of the Workshop

Using the notebook, verify what sort of system your notebook server is running on. What is the OS? What Python version are you using?

Try finding out some more information, such as the type of your processor. See the "platform" module docs [here](#) for details on what you can do

Does your machine have Cuda capability? You'll need this if you want to do the Skills module on GPU programming