

Ipython - Improved Python

Shankar Kulumani

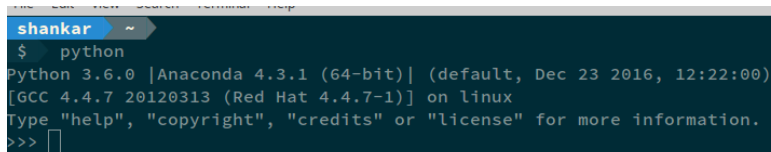
Flight Dynamics & Control Lab

THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

Python Interactively

- Python is an interpreted language - you can write and run code interactively
- Just try typing `python` at the Terminal

A screenshot of a terminal window with a dark green background. The window title bar shows 'shankar' and a tilde symbol. The prompt '\$' is followed by the command 'python'. The output shows the Python version (3.6.0) and environment (Anaconda 4.3.1) information, along with the GCC version and OS (Linux). It also displays the standard help text for the Python interpreter, including options like 'help', 'copyright', 'credits', and 'license'. The prompt '>>>' is followed by a cursor.

```
shankar ~  
$ python  
Python 3.6.0 |Anaconda 4.3.1 (64-bit)| (default, Dec 23 2016, 12:22:00)  
[GCC 4.4.7 20120313 (Red Hat 4.4.7-1)] on linux  
Type "help", "copyright", "credits" or "license" for more information.  
>>> █
```

Python interpreter

- Can write and run code directly here
- Doesn't offer some things that are very useful
 - No autocompletion
 - Debugging when there are errors
 - Reading documentation or help from functions
- There is a better way by using **ipython** - just another interpreter with some useful benefits

ipython

- There is a lot of functionality - read the Documentation
- Helpful Commands:
 - Use tab for autocompletion - works by default
 - `object?` - print details/help about an object
 - `%run script` - run your Python script
 - `%debug` - enter debugging after a crash
- Using `ipython` and an editor gives you everything needed to write and run Python code