

Data Structures & Programmatic Thinking

Hardware

Pepe García

Plan for this session

- Learn a bit about hardware

Plan for this session

- Learn a bit about hardware
- Try the Spyder editor

CPU



- It's the part of the computer capable of *computing*.

CPU



- It's the part of the computer capable of *computing*.
- Speed measured in hertz

CPU



- It's the part of the computer capable of *computing*.
- Speed measured in hertz
- Moore's law (debunked)

CPU



- It's the part of the computer capable of *computing*.
- Speed measured in hertz
- Moore's law (debunked)
- More computing power is achieved through more cores

RAM

- RAM is the short term memory of a computer



RAM

- RAM is the short term memory of a computer
- Think of it like a big shared blackboard



RAM

- RAM is the short term memory of a computer
- Think of it like a big shared blackboard
- Divided in addresses



RAM

- RAM is the short term memory of a computer
- Think of it like a big shared blackboard
- Divided in addresses
- Not persistent



RAM

- RAM is the short term memory of a computer
- Think of it like a big shared blackboard
- Divided in addresses
- Not persistent
- Fast (Random Access)



HDD / SSD

- Hard Disk Drives or Solid State Drives are the long term storage of the computer

HDD / SSD

- Hard Disk Drives or Solid State Drives are the long term storage of the computer
- Persistent

HDD / SSD

- Hard Disk Drives or Solid State Drives are the long term storage of the computer
- Persistent
- Slower than RAM

HDD / SSD

- Hard Disk Drives or Solid State Drives are the long term storage of the computer
- Persistent
- Slower than RAM
- Higher capacity than RAM

Development Environment

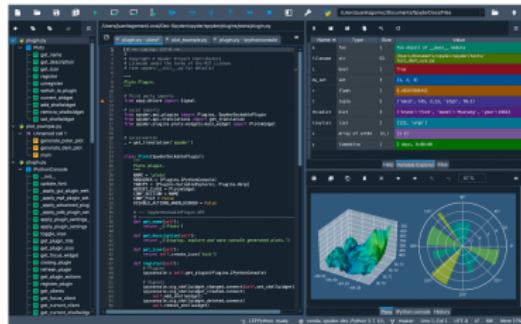
Anaconda

Does everybody have Anaconda installed?

Spyder



The
Scientific
Python
Development
Environment



Spyder

Spyder is the editor we're going to use to develop Python programs.

Review