# Python Meetup 1

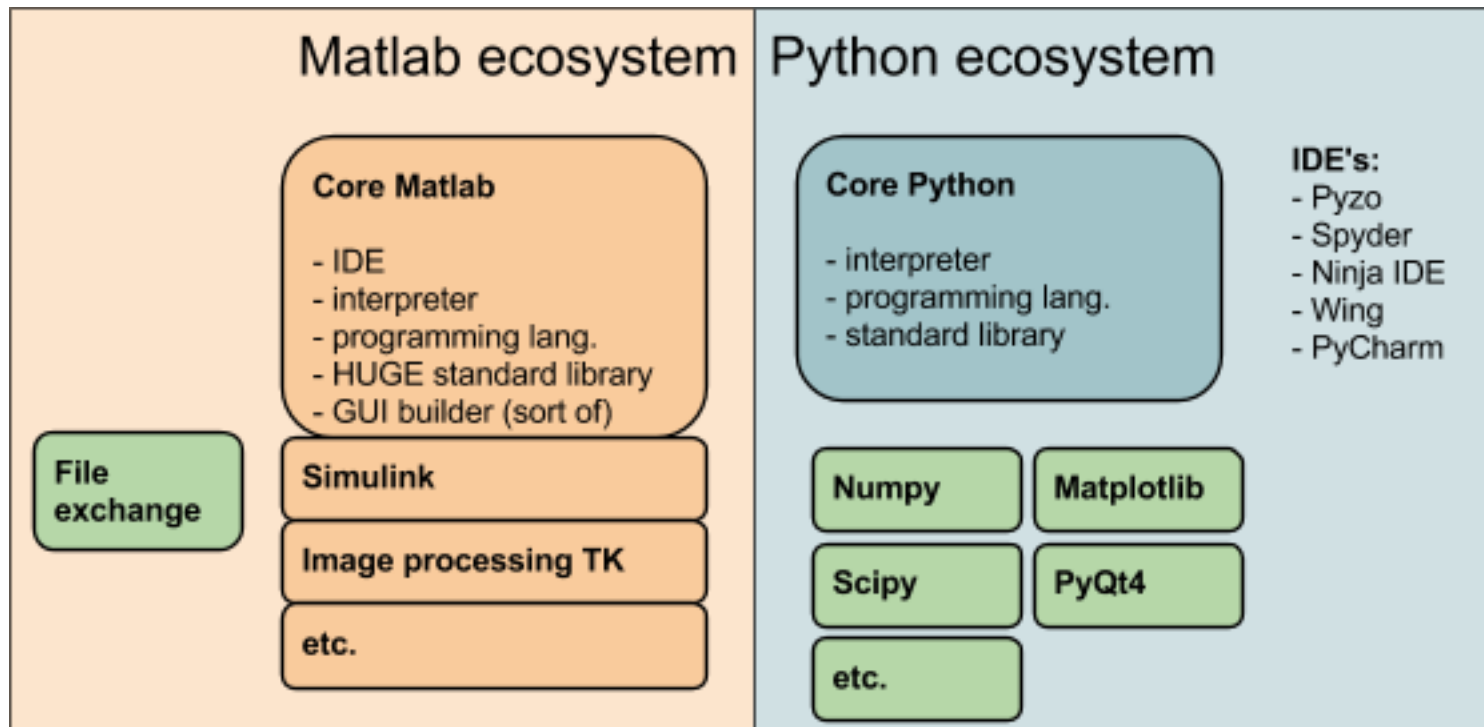*Python, by definition, is a programming language. The most common implementation is that in C (also known as CPython) and is what is mostly refered to as "Python". Apart from the programming language and interpreter, Python also consists of an extensive standard library.*

Goals listed on the DARPA Python proposal for:
- An easy and intuitive language just as powerful as major competitors
- open source, so anyone can contribute to its development
- code that is as understandable as plain English
- suitability for everyday tasks, allowing for short development times

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Founder and
"Benevolent Dictator For Life"

# Matlab to Python…



| Matlab ecosystem | Python ecosystem |
|---|---|
| **Core Matlab**<br><br>- IDE<br>- interpreter<br>- programming lang.<br>- HUGE standard library<br>- GUI builder (sort of) | **Core Python**<br><br>- interpreter<br>- programming lang.<br>- standard library |

**IDE's:**
- Pyzo
- Spyder
- Ninja IDE
- Wing
- PyCharm

**File exchange**

**Simulink**

**Image processing TK**

**etc.**

**Numpy**   **Matplotlib**

**Scipy**   **PyQt4**

**etc.**

# Matlab cons..

well-known memory management deficiencies.

sprawling mess of interconnected m-files.

Matlab is expensive

The algorithms are proprietary

difficult/impossible for 3th parties to extend the functionality of Matlab

lacks the concept of a 'data table'

MATLAB classes are needlessly complicated

Mathworks puts restrictions on code portability, the ability to run your code on someone else's computer

Figures are hard to render well

# Matlab pros..

It has a nice IDE

So let's help each other make the switch…

# Introductions

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Cryoscripts GitHub repo

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V quick Python demo!

# Questions?

# Plans for future meetups?