Python for Scientific Computing

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Why Python?

• High level general purpose language, easy to use and learn.
• A large standard library
• A large community of users and developers
• Lots of libraries spanning many disciplines:
  • Bioinformatics: Biopython
  • Numerical and Scientific computing: Numpy, Scipy, Dask
  • Statistics: Scipy, Statmodels
  • Visualization: Matplotlib, Seaborn, Bokeh
  • Data analysis: Pandas
  • Machine learning: Scikit-learn
  • Image processing: OpenCV, Skimage
  • Deep learning: Tensorflow, Theano, Pytorch,….
Examples in this seminar:

We will go through the Python notebooks in this seminar.

Clone the repository:

```bash
```

Make sure numpy, scipy, scikit-learn, jupyter are installed
(better: install Anaconda 3)

Go to the relevant directory, and launch Jupyter Notebook

```bash
$ jupyter notebook
```
Further Resources for learning Python

• Data Camp: https://www.datacamp.com/courses/intro-to-python-for-data-science
• Udacity: Programming Foundations with Python
• Google: Python class
• And many others…