SKLearn : http://scikit-learn.org/stable/

Machine Learning in Python

- Simple and efficient tools for data mining and data analysis
- Accessible to everybody, and reusable in various contexts
- Built on NumPy, SciPy, and matplotlib
- Open source, commercially usable - BSD license

Uses (examples?):

- Classification
  - Classify DNA sequences based on host organism?
- Regression
  - Time series prediction based on decay/ fecundity?
- Clustering
  - K means clustering of organisms?
- Dimensionality Reduction
  - Explain and describe
- Model Selection
  - Explain and describe
- Preprocessing
  - Explain and describe

http://scikit-learn.org/stable/auto_examples/index.html#general-examples
http://scikit-learn.org/stable/auto_examples/index.html#cluster-examples
http://scikit-learn.org/stable/auto_examples/index.html#decomposition-examples

Installation : http://scikit-learn.org/stable/install.html

Scikit-learn requires:

- Python (>= 2.7 or >= 3.3),
- NumPy (>= 1.8.2),
- SciPy (>= 0.13.3).

If you already have a working installation of numpy and scipy, the easiest way to install scikit-learn is using `pip`

```
pip install -U scikit-learn
```

or `conda`:

```
conda install scikit-learn
```

If you have not installed NumPy or SciPy yet, you can also install these using conda or pip. When using pip, please ensure that *binary wheels* are used, and NumPy and SciPy are not

recompiled from source, which can happen when using particular configurations of operating system and hardware (such as Linux on a Raspberry Pi). Building numpy and scipy from source can be complex (especially on Windows) and requires careful configuration to ensure that they link against an optimized implementation of linear algebra routines. Instead, use a third-party distribution as described below.

If you must install scikit-learn and its dependencies with pip, you can install it as `scikit-learn[alldeps]`. The most common use case for this is in a `requirements.txt` file used as part of an automated build process for a PaaS application or a Docker image. This option is not intended for manual installation from the command line.