**Scikitlearn**

Python programming language as a general-purpose language, it is increasingly used not only in academic settings but also in industry.

Sckitlearn provide state-of-the-art implementations of many well-known machine learning algorithms, while maintaining an easy-to-use interface tightly integrated with the Python language.

Scikit-learn differs from other machine learning toolboxes in Python for various reasons: i) it is distributed under the BSD license ii) it incorporates compiled code for efficiency, unlike MDP (Zito et al., 2008) and pybrain (Schaul et al., 2010), iii) it depends only on numpy and scipy to facilitate easy distribution, unlike pymvpa (Hanke et al., 2009) that has optional dependencies such as R and shogun, and iv) it focuses on imperative programming, unlike pybrain which uses a data-flow framework.

Rather than providing as many features as possible, the project’s goal has been to provide solid implementations.

Most of the Python ecosystem is licensed with non-copyleft licenses

Scikit-learn provides a ∼300-page user guide including narrative documentation, class references, a tutorial, installation instructions, as well as more than 60 examples, some featuring real-world applications. We try to minimize the use of machine-learning jargon, while maintaining precision with regards to the algorithms employed.

Scikit-learn can evaluate an estimator’s performance or select parameters using cross-validation, optionally distributing the computation to several cores. This is accomplished by wrapping an estimator in a GridSearchCV object, where the “CV” stands for “cross-validated”.

Scikit-learn exposes a wide variety of machine learning algorithms, both supervised and unsupervised, using a consistent, task-oriented interface, thus enabling easy comparison of methods for a given application. Since it relies on the scientific Python ecosystem, it can easily be integrated into applications outside the traditional range of statistical data analysis. Importantly, the algorithms, implemented in a high-level language, can be used as building blocks for approaches specific to a use case