2018 Asia University AI Summer Program (Day3-July5) B: scikit-learn

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Content

- Python ML Libraries: numpy scipy matplotlib
  - Numpy
  - Scipy
  - matplotlib
- Scikit-learn: machine learning in Python
  - Datasets
  - Machine learning Algorithms
  - Machine learning Tools

The Iris dataset

IRIS dataset

Iris Versicolor

Iris Setosa

Iris Virginica

scikit learn

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scikit-learn v0.19.1
Other versions

Please **cite us** if you use the software.

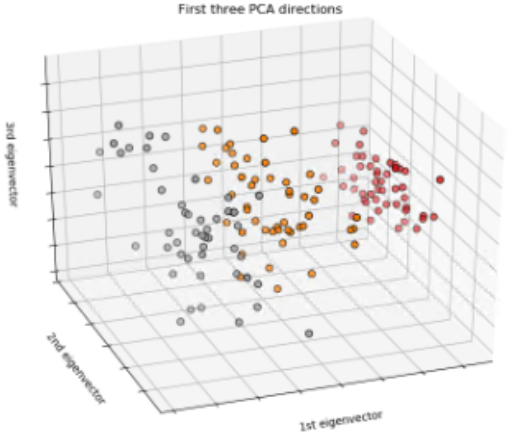
The Iris Dataset

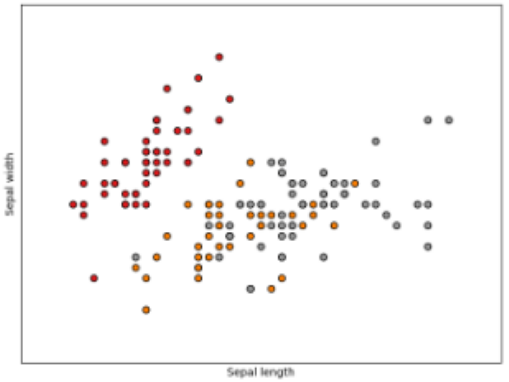
The Iris Dataset

This data sets consists of 3 different types of irises' (Setosa, Versicolour, and Virginica) petal and sepal length, stored in a 150x4 numpy.ndarray

The rows being the samples and the columns being: Sepal Length, Sepal Width, Petal Length and Petal Width.

The below plot uses the first two features. See here for more information on this dataset.






```
print(__doc__)
```

Iris classification with scikit-learn

https://slundberg.github.io/shap/notebooks/Iris+classification+with+scikit-learn.html

- Load the data
- K-nearest neighbors
- Support vector machine with a linear kernel
- Support vector machine with a radial basis function kernel
- Logistic regression
- Decision tree
- Random forest
- MLP Neural network

Thanks!

Q&A