

COMP 333 — Week 10 ML Example 2

Machine Learning Example 2

The article

Your First Machine Learning Project in Python Step-By-Step by Jason Brownlee, 2019

<https://machinelearningmastery.com/machine-learning-in-python-step-by-step/>

shows Machine Learning in the context of EDA.

It is a good example of EDA.

From Section 5 **Evaluate Some Algorithms** onwards it presents the ML process

- ▶ Separate out a validation dataset.
- ▶ Set-up the test harness to use 10-fold cross validation.
- ▶ Build multiple different models to predict species from flower measurements
- ▶ Select the best model.

Again, it uses the iris dataset.

It compares six common ML algorithms

- ▶ Logistic Regression (LR)
- ▶ Linear Discriminant Analysis (LDA)
- ▶ K-Nearest Neighbours (KNN).
- ▶ Classification and Regression Trees (CART).
- ▶ Gaussian Naive Bayes (NB).
- ▶ Support Vector Machines (SVM).

In Week 11 we discuss the Machine Learning Process, so you should read this article again after that lecture.