06/14

PROJECT

Class Diagram

MelodyMaker

Milestone5

TEAM 3

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| Classes | Description |
| Numpy | NumPy (or Numpy) is a Linear Algebra Library for Python, the reason it is so important for Data Science with Python is that almost all of the libraries in the PyData Ecosystem rely on NumPy as one of their main building blocks.  Numpy is also incredibly fast, as it has bindings to C libraries. |
| Matplotlib.pyplot | Provides a MATLAB-like plotting framework.  pylab combines pyplot with numpy into a single namespace. This is convenient for interactive work, but for programming it is recommended that the namespaces be kept separate. |
| Pandas | pandas is an open source, BSD-licensed library providing high-performance, easy-to-use data structures and data analysis tools for the Python programming language.  pandas is a NumFOCUS sponsored project. This will help ensure the success of development of pandas as a world-class open-source project, and makes it possible to donate to the project. |
| Sklearn.Processing | MinMaxScaler | The sklearn.preprocessing package provides several common utility functions and transformer classes to change raw feature vectors into a representation that is more suitable for the downstream estimators.  In general, learning algorithms benefit from standardization of the data set. If some outliers are present in the set, robust scalers or transformers are more appropriate.  Transforms features by scaling each feature to a given range.  This estimator scales and translates each feature individually such that it is in the given range on the training set, i.e. between zero and one. |
| Keras.models | Sequential | Keras is a high-level neural networks API, written in Python and capable of running on top of TensorFlow, CNTK, or Theano. It was developed with a focus on enabling fast experimentation. Being able to go from idea to result with the least possible delay is key to doing good research. |

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