ReadMe.md

XyGen is a machine learning library that assists researchers in generating synthetic datasets for evaluating feature selection algorithms. The *X* refers to the commonly known dependent features and the *y* refers to the dependent target attribute. The library comprises a single, self-contained module and currently includes 5 different methods for generating artificial datasets: ORAND, ANDOR, ADDER, LED, and PRC. These methods are primarily based on concepts in computer science and electronics. Additionally, XyGen is flexible and can easily be extended to include other custom generation methods.

To use the XyGen module, you simply import the XyGen class from the XyGen module and instantiate a generator object from that class. Using this generator object you can generate features that can be used for benchmarking a suite of features selection algorithms. The synthesized datasets can be saved and loaded from CSV.

* Added the standard Copyright header
* License: Apache 2.0
* Each method dumps its data in a CSV file.
* OO design
* Generator class’s constructor has the following parameters:
  + Seed
  + Flipping ratio 30%
* Extendibility
  + Other methods can be added.
* The save and load methods are generic to accommodate any method that can be added in the future.
* If seed is None in any method, it will revert to the Genertor’s default which is 0.
* The CSV file has header information about the data inside.
* Examples provided for console, Jupyter Notebooks, and GUI.
* LED:
  + I moved reading the CSV inside the method.