**PythonToMathematica –** Program for **DataModeler** Use.

1. **Python and Mathematica must be installed** to

run python and Mathematica scripts.

**DataModeler Must be Installed for symbolic regression (PytoMath.py)**

2. **Path Environment Variables** must be set up.

Look up according to operating system how to

add paths and proceed with both Mathematica and pythons

directory being added.

In general, in Mathematica $BaseDirectory can be used to locate Path.

Windows:

Mathematica - c:\Program Files\Wolfram Research\Mathematica\<version number>

Python -

C:\Users\<Username>\AppData\Local\Programs\Python\Python36-32\Scripts

C:\Users\<Username>\AppData\Local\Programs\Python\Python36-32\

OSX:

Mathematica - /Applications/Mathematica.app

Python – Apple Installs their own copy of python for use. See

<https://docs.python.org/3/using/mac.html> for more details.

Linux:

Mathematica - /usr/local/Wolfram/Mathematica/<version number>

Python – Python usually comes preinstalled on linux systems. System may very installation. see

<https://docs.python.org/3/using/unix.html> for more details.

**EXAMPLE**

run python files with:

python <file> <argv>

Example -

python test.py -p 1 2 3 -d 1 2 3 4

{1., 2., 3.}

{1., 2., 3., 4.}

If this runs correctly, you are setup with Python and Mathematica.

Must have DataModeler installed for more advanced usage.

More info here – www.evolved-analytics.com

Python PytoMath.py testData.xls

If the following runs with no errors, Datamodeler is setup and script should run correctly.

FLAGS

|  |  |  |  |
| --- | --- | --- | --- |
| FLAG | NAME | DEFAULT OPERATION | DESC |
| -f | File Input | Reqired | Spreadsheet |
| -tc | TargetColumn | Last | Column in data containing response |
| -ev | ExcludedVariables | Automatic | Inputs not included in developed models |
| -rv | RequiredVariables | None | Augmented with inputs |
| -dv | DataVariables | {1,x} | Supplied list with advantage of models being directly interpretable |
| -time | TimeConstraint | 300 | Input how long program should run (sec) |
| -memory | MemoryLimit | 500 “MB” | Memory to be allocated. Strings GB MB KB may be used |
| -ie | Independent Evolutions | 1 | Execute multiple model searches in sequence with comulative result |
| -save | StoreModelSet | True | (Note: Typically False in Datamodeler mathematica usage) Archives developed models |
|  |  |  |  |