import smartImport

BRYANT BIGGS

SEPTEMBER 15, 2016

SMART **IMPORT**

"You don't know what you don't know…"

- unknown

***88,678** packages in the Python Package Index*

Purpose:

Provide recommendations for Python libraries

SMART TECH


GitHub
databricks
mongoDB.
APACHE
Spark
amazon
web services™

SMART **DATA**

2,654 *– Repositories*

24,010 *– Markdown files*

99,210 *– Python files*

Markdown

```
<div align="center">
  <img src="https://www.tensorflow.org/images/tf_logo_transp.png"><br><br>
</div>
-----------------

|  **`Linux CPU`**   |  **`Linux GPU PIP`** | **`Mac OS CPU`** |  **`Android`**
|
|------------------|---------------------|-----------------|---------------|
| [![Build Status](https://ci.tensorflow.org/buildStatus/icon?job=tensorflow-
master-cpu)](https://ci.tensorflow.org/job/tensorflow-master-cpu) | [![Build
Status](https://ci.tensorflow.org/buildStatus/icon?job=tensorflow-master-
gpu_pip)](https://ci.tensorflow.org/job/tensorflow-master-gpu_pip) | [![Build
Status](https://ci.tensorflow.org/buildStatus/icon?job=tensorflow-master-
mac)](https://ci.tensorflow.org/job/tensorflow-master-mac) | [![Build Status]
(https://ci.tensorflow.org/buildStatus/icon?job=tensorflow-master-android)]
(https://ci.tensorflow.org/job/tensorflow-master-android) |

**TensorFlow** is an open source software library for numerical computation
using
data flow graphs.  Nodes in the graph represent mathematical operations, while
the graph edges represent the multidimensional data arrays (tensors) that flow
between them.  This flexible architecture lets you deploy computation to one
or more CPUs or GPUs in a desktop, server, or mobile device without rewriting
code.  TensorFlow also includes TensorBoard, a data visualization toolkit.

TensorFlow was originally developed by researchers and engineers
working on the Google Brain team within Google's Machine Intelligence research
organization for the purposes of conducting machine learning and deep neural
networks research.  The system is general enough to be applicable in a wide
variety of other domains, as well.

**If you'd like to contribute to TensorFlow, be sure to review the [contribution
guidelines](CONTRIBUTING.md).**

**We use [GitHub issues](https://github.com/tensorflow/tensorflow/issues) for
tracking requests and bugs, but please see
[Community](tensorflow/g3doc/resources/index.md#community) for general questions
and discussion.**
```

SMART **DATA**

2,654 *– Repositories*

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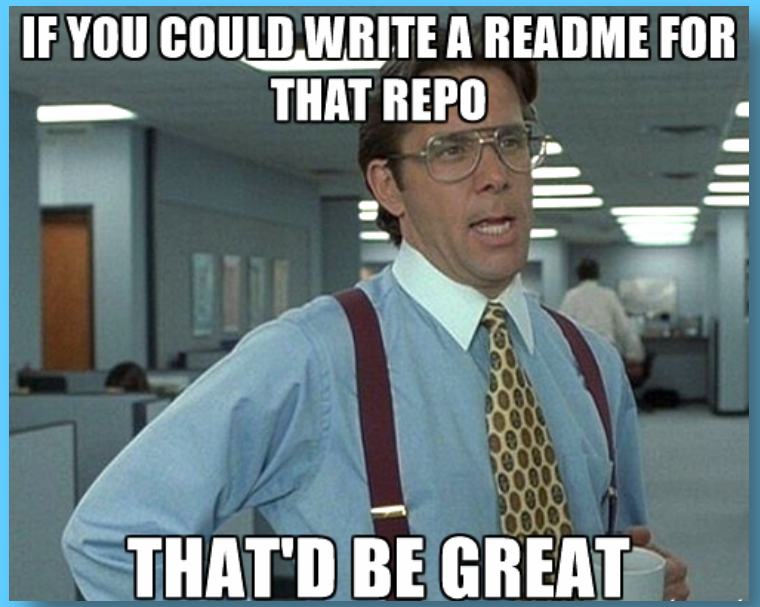
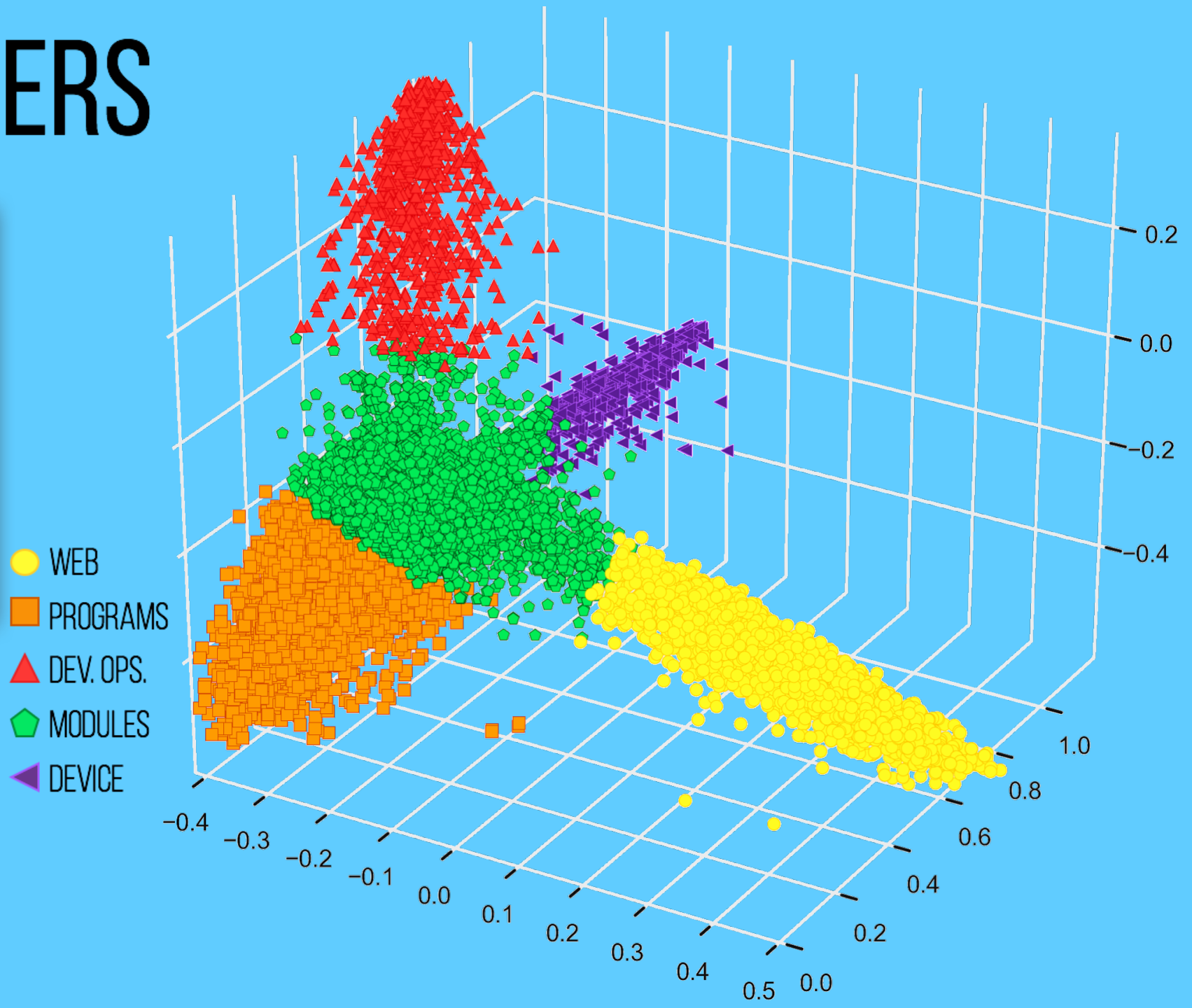
Python

```python
# Author: Tim Head <betatim@gmail.com>
# Author: Hugo Bowne-Anderson <hugobowne@gmail.com>
# Author: Chris Rivera <chris.richard.rivera@gmail.com>
# Author: Michael Williamson
# Author: James Ashton Nichols <james.ashton.nichols@gmail.com>
#
# License: BSD 3 clause

import numpy as np

from abc import ABCMeta
from .base import BaseEstimator, clone
from .base import RegressorMixin, ClassifierMixin
from .utils import check_array, check_X_y
from .utils.fixes import parallel_helper
from .utils.validation import check_is_fitted, has_fit_parameter
from .externals.joblib import Parallel, delayed
from .externals import six

__all__ = ["MultiOutputRegressor", "MultiOutputClassifier"]


def _fit_estimator(estimator, X, y, sample_weight=None):
    estimator = clone(estimator)
    if sample_weight is not None:
        estimator.fit(X, y, sample_weight=sample_weight)
    else:
        estimator.fit(X, y)
    return estimator
```

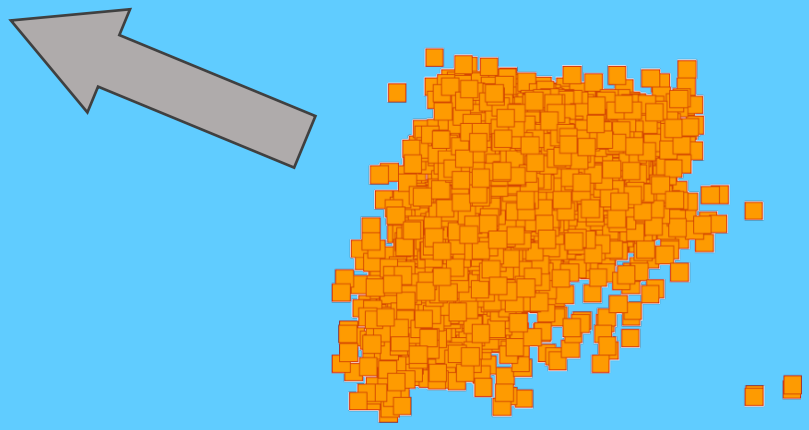
SMART CLUSTERS

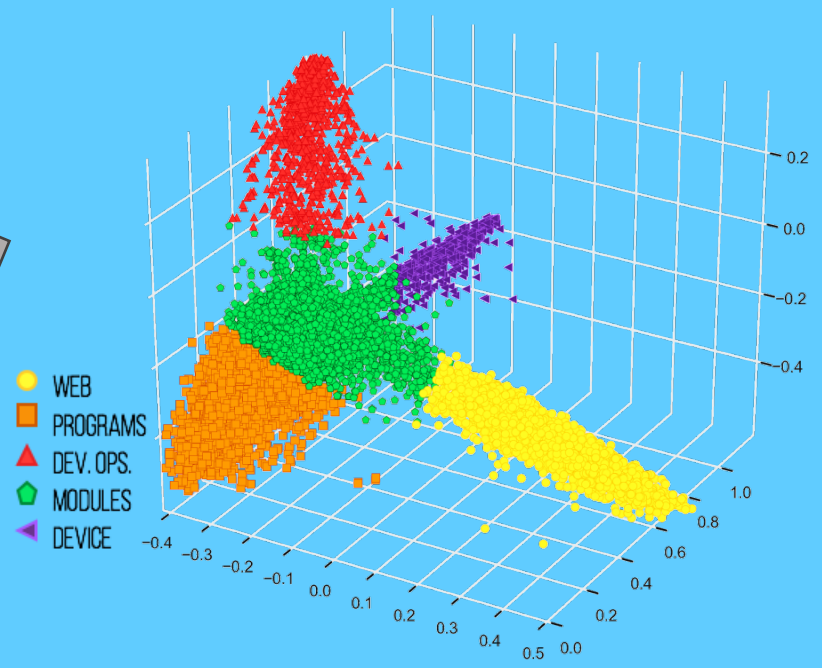




SMART **CLUSTERS**

```
sklearn
numpy
pandas
matplotlib
nltk
...
```

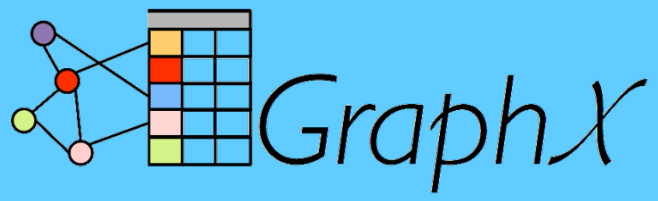


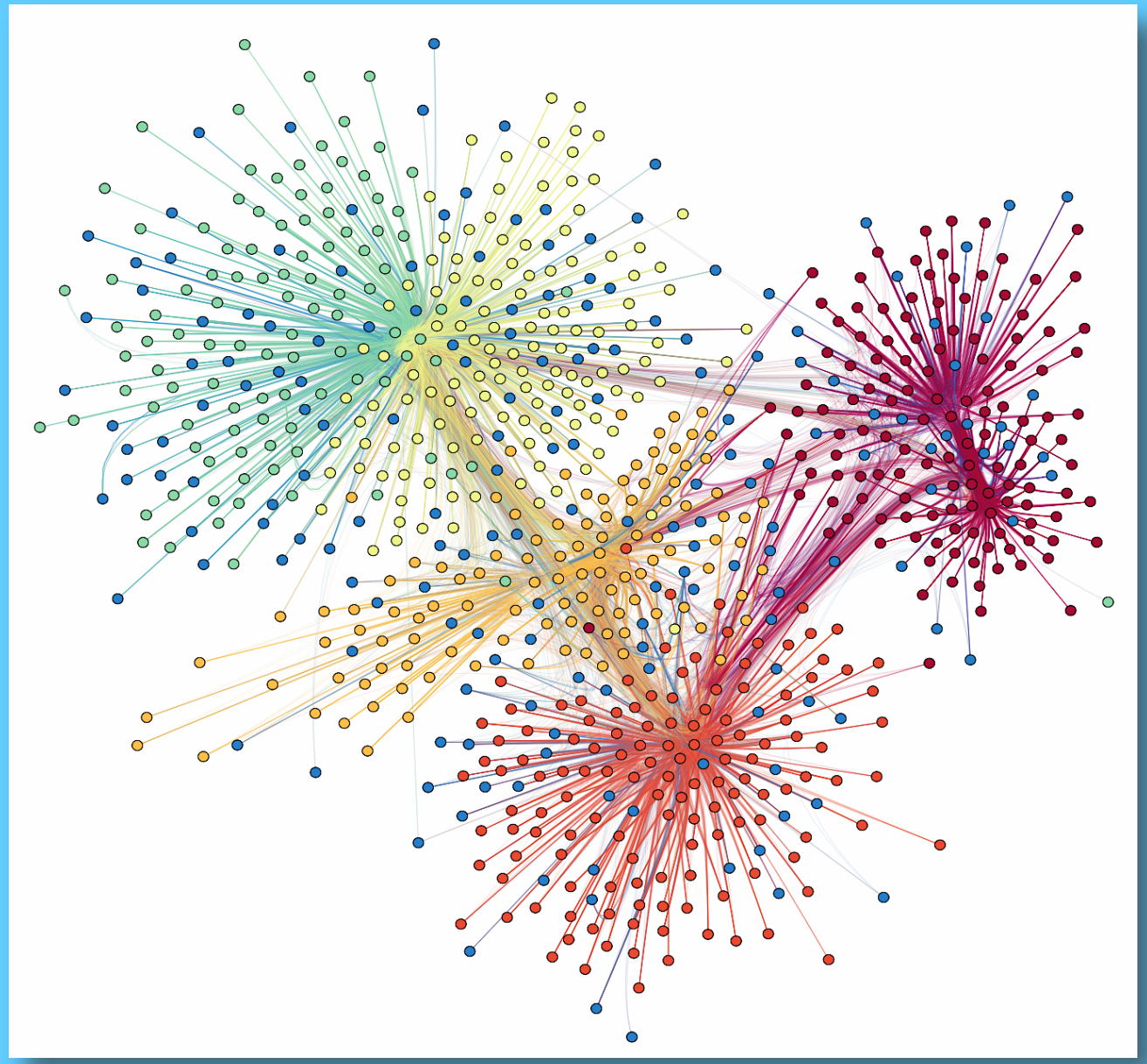


SMART RECOMMENDATIONS

```
>>> import smartImport as si
>>> si.get_library()
['sklearn', 'numpy', 'pandas', 'matplotlib', 'nltk']
>>> import nltk
>>> si.get_coalesce()
['re', 'string', 'textblob', 'matplotlib']
```

SMART **FUTURE**



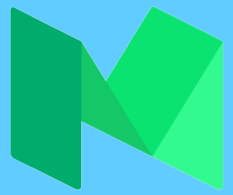


THANK **YOU!**

Bryant Biggs

*www.linkedin.com/in/**bryantbiggs***

*github.com/**bryantbiggs***



*medium.com/**big-data-engineering***