
easymf Documentation

Release 0.1.0

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Jul 09, 2017

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A toolkit for easily building and evaluating machine learning models.

CHAPTER 1

Installation

You can install the latest development version from PyPI:

```
pip install easymlypy
```

Or from GitHub with:

```
git clone https://github.com/CCS-Lab/easymly.git
cd easymly/Python
pip install .
pip install -r requirements.txt
```

If you encounter a clear bug, please file a [minimal reproducible example](#) on [github](#).

CHAPTER 2

Documentation

For more documentation, please see the page on [Documentation](#).

CHAPTER 3

Vignettes

For vignettes, please see the page on Vignettes.

CHAPTER 4

Examples

Load the easymlypy library:

```
from easymlypy.datasets import load_prostate, load_cocaine_dependence
from easymlypy.glmnet import easy_glmnet
```

For a dataset with a continuous dependent variable:

```
# Load data
prostate = load_prostate()

# Analyze data
output = easy_glmnet(prostate, 'lpsa',
                      random_state=1, progress_bar=True, n_core=1,
                      n_samples=100, n_divisions=10, n_iterations=5,
                      model_args={'alpha': 1, 'n_lambda': 200})
```

For a dataset with a binary dependent variable:

```
# Load data
cocaine_dependence = load_cocaine_dependence()

# Analyze data
results = easy_glmnet(cocaine_dependence, 'diagnosis',
                      family='binomial',
                      exclude_variables=['subject'],
                      categorical_variables=['male'],
                      random_state=12345, progress_bar=True, n_core=1,
                      n_samples=5, n_divisions=5, n_iterations=2,
                      model_args={'alpha': 1, 'n_lambda': 200})
```


A whitepaper for easym1 is available at <https://doi.org/10.1101/137240>. If you find this code useful please cite us in your work:

```
@article {Hendricks137240,  
  author = {Hendricks, Paul and Ahn, Woo-Young},  
  title = {Easym1: Easily Build And Evaluate Machine Learning Models},  
  year = {2017},  
  doi = {10.1101/137240},  
  publisher = {Cold Spring Harbor Labs Journals},  
  URL = {http://biorxiv.org/content/early/2017/05/12/137240},  
  journal = {bioRxiv}  
}
```


CHAPTER 6

References

Hendricks, P., & Ahn, W.-Y. (2017). Easyml: Easily Build And Evaluate Machine Learning Models. bioRxiv, 137240. <http://doi.org/10.1101/137240>