

linearsvr-rsmtool

February 11, 2020

```
In [1]: import pandas as pd
```

```
    from skll import Learner
    from skll.data import FeatureSet
```

```
In [2]: df = pd.read_csv('/tmp/xxx/output/LinearSVR_train_preprocessed_features.csv',
                        index_col='spkitemid')
    fs = FeatureSet.from_data_frame(df, 'train', labels_column='sc1')
```

```
In [29]: l1 = Learner('LinearSVR')
    _ = l1.train(fs, grid_objective='pearson', grid_jobs=1)
```

Training data will be shuffled to randomize grid search folds. Shuffling may yield different results compared to scikit-learn.

```
/Users/nmadnani/anaconda/envs/sklldev/lib/python3.7/site-
packages/sklearn/svm/base.py:929: ConvergenceWarning: Liblinear failed to converge,
increase the number of iterations.
```

```
"the number of iterations.", ConvergenceWarning)
```

```
In [30]: l2 = Learner('LinearSVR',
                    model_kwargs={'max_iter': 5000})
    _ = l2.train(fs, grid_objective='pearson', grid_jobs=1)
```

Training data will be shuffled to randomize grid search folds. Shuffling may yield different results compared to scikit-learn.

```
/Users/nmadnani/anaconda/envs/sklldev/lib/python3.7/site-
packages/sklearn/svm/base.py:929: ConvergenceWarning: Liblinear failed to converge,
increase the number of iterations.
```

```
"the number of iterations.", ConvergenceWarning)
```

```
In [31]: l3 = Learner('LinearSVR',
                    model_kwargs={'tol': 0.01})
    _ = l3.train(fs, grid_objective='pearson', grid_jobs=1)
```

Training data will be shuffled to randomize grid search folds. Shuffling may yield different results compared to scikit-learn.

```
/Users/nmadnani/anaconda/envs/sklldev/lib/python3.7/site-
packages/sklearn/svm/base.py:929: ConvergenceWarning: Liblinear failed to converge,
increase the number of iterations.
```

```
"the number of iterations.", ConvergenceWarning)
```

```
In [32]: l4 = Learner('LinearSVR',
                    model_kwargs={'tol': 0.01, 'max_iter': 10000})
    _ = l4.train(fs, grid_objective='pearson', grid_jobs=1)
```

Training data will be shuffled to randomize grid search folds. Shuffling may yield different results compared to scikit-learn.

```
/Users/nmadnani/anaconda/envs/sklldev/lib/python3.7/site-  
packages/sklearn/svm/base.py:929: ConvergenceWarning: Liblinear failed to converge,  
increase the number of iterations.
```

```
"the number of iterations.", ConvergenceWarning)
```

```
In [33]: l5 = Learner('LinearSVR',  
                    model_kwargs={'tol': 0.1, 'max_iter': 10000})  
    _ = l5.train(fs, grid_objective='pearson', grid_jobs=1)
```

Training data will be shuffled to randomize grid search folds. Shuffling may yield different results compared to scikit-learn.