

# SFS

## MLXtend - Sklearn

# SFS – open source libraries



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```
from sklearn.feature_selection import SequentialFeatureSelector as SFS

sfs = SFS(
    estimator=RandomForestClassifier(
        n_estimators=10, n_jobs=4, random_state=0),
    n_features_to_select=10, # the number of features to retain
    tol=None, # the maximum increase or decrease in the performance metric
    direction='forward', # the direction of the selection procedure
    scoring='roc_auc', # the metric to evaluate
    cv=2, # the cross-validation fold
    n_jobs=4, # for parallelization
)

sfs = sfs.fit(X_train, y_train)
```



```
from mlxtend.feature_selection import SequentialFeatureSelector as SFS

sfs1 = SFS(knn,
            k_features=3,
            forward=True,
            floating=False,
            verbose=2,
            scoring='accuracy',
            cv=0)

sfs1 = sfs1.fit(X, y)
```

# Which library?

## Sklearn

- Slightly faster.
- Can stop based on model performance.
- Parameters we already know.

# THANK YOU

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