

svm_hyper_parameter

January 30, 2019

```
In [3]: import numpy
        X = numpy.loadtxt("./data/Train/X_train.txt")
        y = numpy.loadtxt("./data/Train/y_train.txt")
```

```
In [4]: from models import svm
        best_model = svm.find_hyperparameter(X,y)
```

cross validation scores of best model are : [0.97304236 0.96786632 0.97297297 0.97421019 0.96961019]
mean of cross validation scores of best model is: 0.9715460177506394

```
In [6]: best_model.get_params()
```

```
Out[6]: {'C': 1.0,
         'cache_size': 200,
         'class_weight': None,
         'coef0': 0.0,
         'decision_function_shape': 'ovr',
         'degree': 2,
         'gamma': 'scale',
         'kernel': 'linear',
         'max_iter': -1,
         'probability': False,
         'random_state': None,
         'shrinking': True,
         'tol': 0.001,
         'verbose': False}
```