

sklearn.svm.SVC — scikit-learn.org/stable/modules/generated/sklearn.svm.SVC.html#sklearn.svm.SVC

```
class sklearn.svm.SVC(C=1.0, kernel='rbf', degree=3, gamma=0.0, coef0=0.0, shrinking=True, probability=False, tol=0.001, cache_size=200, class_weight=None, verbose=False, max_iter=-1, random_state=None)
```

C-Support Vector Classification.

The implementation is based on libsvm. The fit time complexity is more than quadratic with the number of samples which makes it hard to scale to dataset with more than a couple of 10000 samples.

The multiclass support is handled according to a one-vs-one scheme.

For details on the precise mathematical formulation of the provided kernel functions and how gamma, coef0 and degree affect each, see the corresponding section in the narrative documentation: [Kernel functions](#).

Parameters: **C** : float, optional (default=1.0)

Penalty parameter C of the error term.

kernel : string, optional (default='rbf')

Specifies the kernel type to be used in the algorithm. It must be one of 'linear', 'poly', 'rbf', 'sigmoid', 'precomputed' or a callable. If none is given, 'rbf' will be used. If a callable is given it is used to precompute the kernel matrix.

degree : int, optional (default=3)

Quiz

Which of the following are SVC kernels I can use?

- ☐ linear
- ☐ poly
- ☐ rbf
- ☐ sigmoid
- ☒ all + more