

## SUPPORT VECTOR REGRESSION API SUMMARY

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Support Vector Regression (SVR) uses the same principle as SVM, but for regression problems.

### **sklearn.svm.SVR**

```
class sklearn.svm.SVR(*, kernel='rbf', degree=3, gamma='scale',
coef0=0.0, tol=0.001, C=1.0, epsilon=0.1, shrinking=True,
cache_size=200, verbose=False, max_iter=- 1)
```

#### PARAMETERS:

- kernel: {'linear', 'poly', 'rbf', 'sigmoid', 'precomputed'}, default='rbf'
- degree: int, default=3
- gamma: {'scale', 'auto'} or float, default='scale'
  - if gamma='scale' (default) is passed then it uses  $1 / (n\_features * X.var())$  as value of gamma,
  - if 'auto', uses  $1 / n\_features$ .
- coef0: float, default=0.0
- tol: float, default=1e-3
- C: float, default=1.0
- epsilon: float, default=0.1
- shrinking: bool, default=True
- cache\_size: float, default=200
- verbose: bool, default=False
- max\_iter: int, default=-1

#### ATTRIBUTES:

- class\_weight\_: ndarray of shape (n\_classes,)
- coef\_: ndarray of shape (1, n\_features)
- dual\_coef\_: ndarray of shape (1, n\_SV)
- fit\_status\_: int
- intercept\_: ndarray of shape (1,)
- n\_support\_: ndarray of shape (n\_classes,), dtype=int32
- shape\_fit\_: tuple of int of shape (n\_dimensions\_of\_X,)
- support\_: ndarray of shape (n\_SV,)
- support\_vectors\_: ndarray of shape (n\_SV, n\_features)