

## Support Vector Machine

SVMs are good supervised algorithm, regression. They use a subset of training point in decision functions to be memory-efficient and efficient in high-dimensional domains with huge feature counts, SVM can handle linear, polynomial, RBF and sigmoid kernel functions, broadening its applicability. It uses  $SVC$ ,  $NU_SVC$  and  $linearSVC$  for classification and  $SVR$ ,  $NU_SVR$  and  $linearSVR$  for regression. Computer-intensive SVM overfit high-dimensional data and need  $C$  and  $\gamma$  adjustments. Cross Validation estimates probability rather than decision scores, although it is computationally expensive and may not be accurate. SVM scale data to excel and balance classes or samples.