CME 216, ME 343 - Winter 2020 Eric Darve, ICME



scikit-learn

To demonstrate how SVM works we are going to use <u>scikit-</u> learn.

The results in this section can be reproduced using this <u>Python notebook</u>.

The scikit-learn library can perform many important computations in machine learning including supervised and unsupervised learning.

See <u>scikit supervised learning</u> for more details about the functionalities that are supported.

We are going to demonstrate our concept through a simple example.

Let's generate 8 random points in the 2D plane.

Points in the top left are assigned the label -1 (y > x) and points in the bottom right are assigned a label -1 (y < x). --- class: middle In Python, we set up two arrays X (coordinates) and y (labels) with the data: ```python print('Shape of X: ', X.shape) print(X) print(' Shape of y: ', y.shape) print(y)

Decision function

