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In [0]: import numpy as np
from sklearn.svm import SVC
from sklearn.feature_selection import RFE
import matplotlib.pyplot as plt
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In [0]: features = np.genfromtxt("./Aggregated_Data.csv", delimiter=",", usecols=(0, 1, 2, 3, 4, 5, 6, 7))
target = np.genfromtxt("./Aggregated_Data.csv", delimiter=",", usecols=8)

#the supervised learning estimator
#I used the support vector classifier for simplicity
#I used the a linear kernel since our data is linearly separable (1 vs 0)
estimator = SVC(kernel="linear")

#recursive feature elimination coded as shown in the RFE documentation page
#https://scikit-learn.org/stable/modules/generated/sklearn.feature_selection.RFE.html
#the estimator is a supervised learning estimator that helps the selector
#decide the importance of the features
#n_features_to_select is set to None, so it selects half the features to keep
#step is how many features to remove after each iteration (it removes the
#least important feature each time)
selector = RFE(estimator = estimator, n_features_to_select = None, step=1)
selector = selector.fit(features, target)
#support is an array of boolean values where True
#means the feature was selected
print(selector.support_)
#the ranking of how important the feature is (1 being the highest)
print(selector.ranking_)

[False  True False  True  True  True False False]
[4  1  3  1  1  1  2  5]
```

The important features are age, vaccination rate, UL, and CL.