

160040007  
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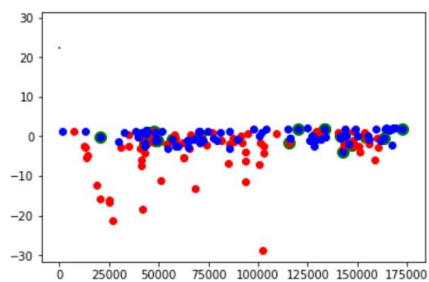
## Assignment 2 (SVM)

Ran the Notebook 7 times with an average of 35 predictions correct. Thus accuracy =  $(35.8/40)*100 = 89.5\%$

```
In [10]: y_predict = clf.predict(X_test)
correct = np.sum(y_predict == y_test)
print("%d out of %d predictions correct" % (correct, len(y_predict)))

plot_margin(X_train[y_train == 1], X_train[y_train == -1], clf)
```

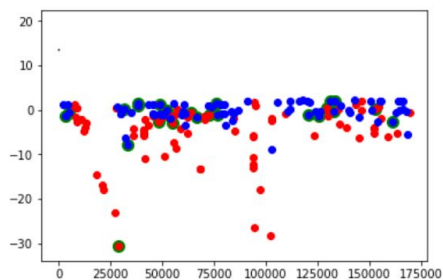
36 out of 40 predictions correct



```
In [10]: y_predict = clf.predict(X_test)
correct = np.sum(y_predict == y_test)
print("%d out of %d predictions correct" % (correct, len(y_predict)))

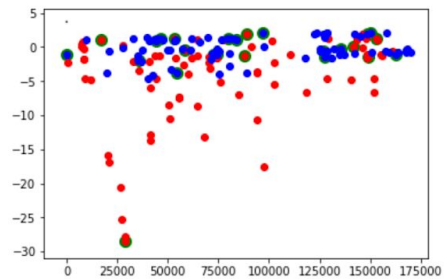
plot_margin(X_train[y_train == 1], X_train[y_train == -1], clf)
```

39 out of 40 predictions correct



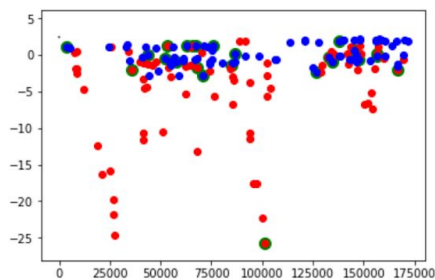
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In [10]: y_predict = clf.predict(X_test)
correct = np.sum(y_predict == y_test)
print("%d out of %d predictions correct" % (correct, len(y_predict)))
plot_margin(X_train[y_train == 1], X_train[y_train == -1], clf)
```

35 out of 40 predictions correct



```
In [10]: y_predict = clf.predict(X_test)
correct = np.sum(y_predict == y_test)
print("%d out of %d predictions correct" % (correct, len(y_predict)))
plot_margin(X_train[y_train == 1], X_train[y_train == -1], clf)
```

34 out of 40 predictions correct



```
In [10]: y_predict = clf.predict(X_test)
correct = np.sum(y_predict == y_test)
print("%d out of %d predictions correct" % (correct, len(y_predict)))
plot_margin(X_train[y_train == 1], X_train[y_train == -1], clf)
```

35 out of 40 predictions correct

