exp2.html 22/03/2018

Python 3.5.4 |Anaconda, Inc.| (default, Oct 13 2017, 11:22:58) Type "copyright", "credits" or "license" for more information.

```
IPython 6.1.0 -- An enhanced Interactive Python.
```

```
In [1]: runfile('/home/shubham/Dropbox/COURSES/EEN-583 MACHINE LEARNING
TUTORIALS/14115118_SHUBHAM_KUMAR_SVM_SMO/exp2_svm_smo_testing_linear_kenrel_non_linearly_separable_data.py', wdir='/home/shubham/Dropbox/COURSES/EEN-583 MACHINE LEARNING TUTORIALS/14115118_SHUBHAM_KUMAR_SVM_SMO')
----14115118-Shubham-Kumar-EE-IVth Yr----
Training SVM Using SMO on synthetic data. Training Data Plot: Red = + 1 / Blue = - 1
```

```
8
 6
 2
 0
-2
-6
-8
       Ò
```

Initial Wts: [0. 0.] Initial Bias: 0

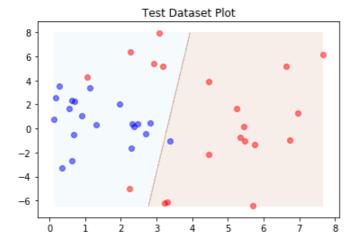
Training Data Plot

```
Press Enter to Start training...
step=5
step=10
step=15
step=20
step=25
step=30
step=35
step=40
step=45
step=50
step=55
step=60
step=65
step=70
step=75
step=80
step=85
step=90
step=95
step=100
step=105
step=110
step=115
step=120
step=125
step=130
step=135
=======Training over======
Wts after training: [ 0.7006805 -0.05656947]
Bias after training: 2.3081114540641625
Press Enter to Start prediction...
Training Scores.. ({'TP': 15.0, 'TN': 20.0, 'FN': 5.0, 'FP': 0.0}, {'TNR': 80.0000011920929, 'PPV': 100.0, 'TPR': 100.0, 'NPV': 80.0000011920929})
Test Scores..
({'TP': 14.0, 'TN': 19.0, 'FN': 6.0, 'FP': 1.0}, {'TNR': 75.99999904632568, 'PPV': 93.33333373069763, 'TPR': 93.33333373069763, 'NPV': 75.99999904632568})
```

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Testing Data Plot



In [2]: