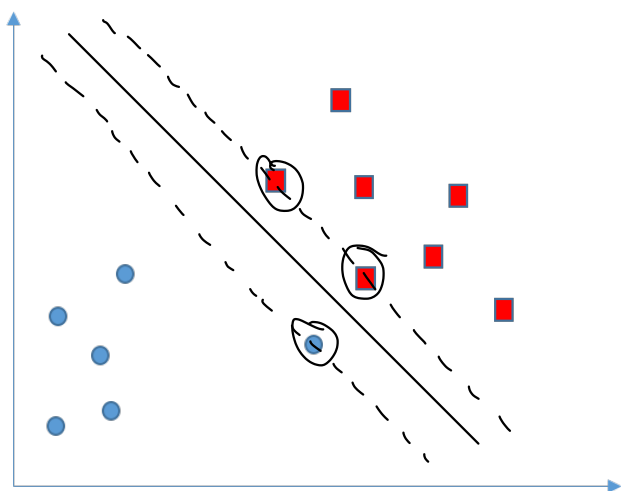
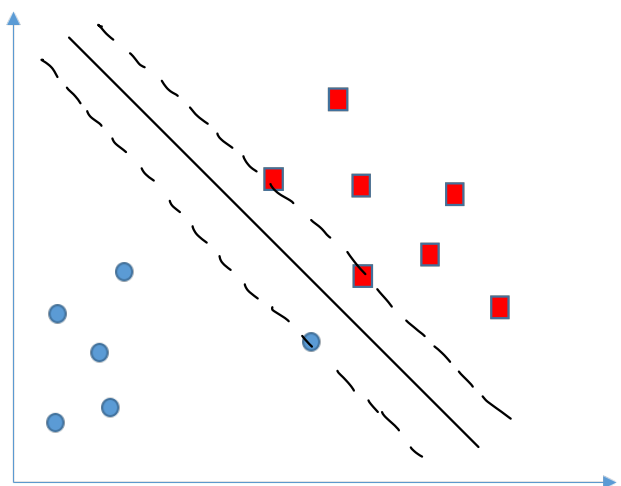


Name Ian Chen

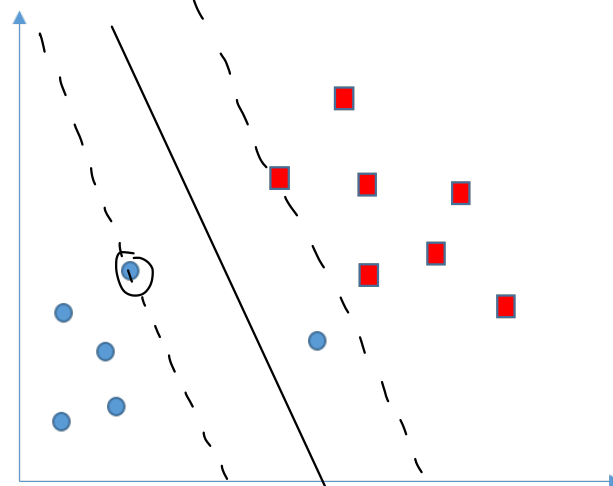
1. Draw a hyperplane (including the margin lines) generated by a linear hard-margin SVM. Circle the support vectors.



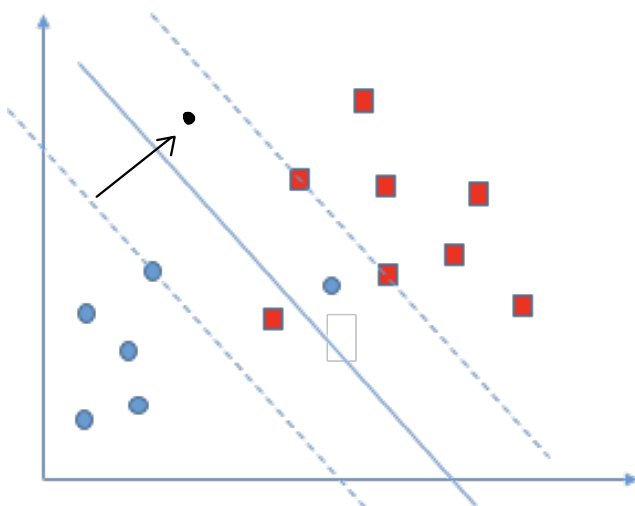
2. Draw a hyperplane (including the margin lines) generated by a linear soft-margin SVM with a large value of C (i.e. $C \rightarrow \infty$).



3. Draw a hyperplane (including the margin lines) generated by a linear soft-margin SVM with a small value of C (i.e. $C \rightarrow 0$).



4. Draw a circle-class data point with slack $1 < \xi < 2$.



5. In a soft-margin SVM, which datapoints would be the support vectors? Circle the support vectors here:

