

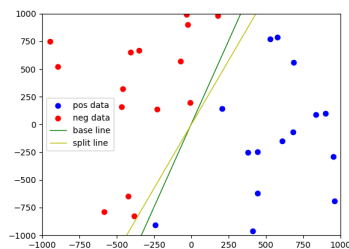
# HW2

## Execution description

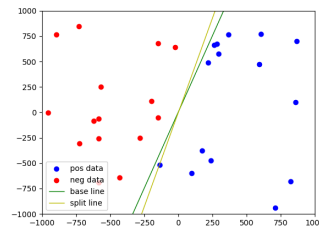
this code

## Experimental results

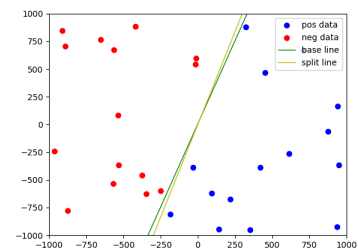
### 1. data\_30\_1 ~ data\_30\_3 iterations nums



AVG iterations: 33

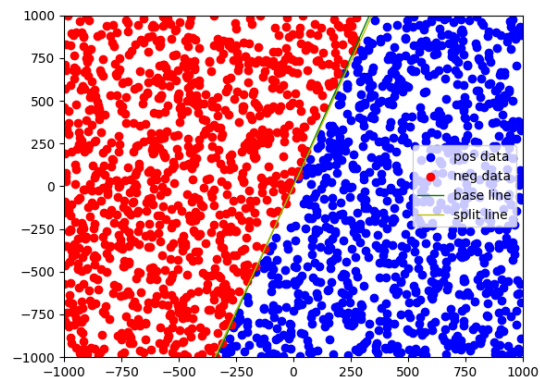
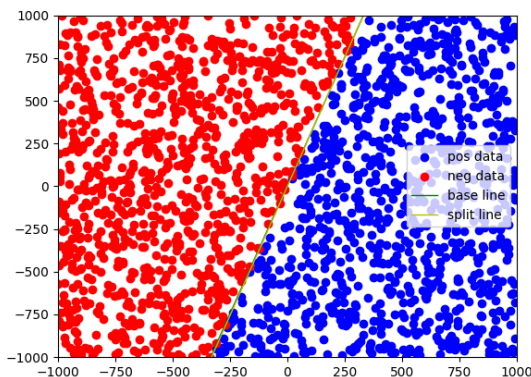


AVG iterations: 47



AVG iterations: 3

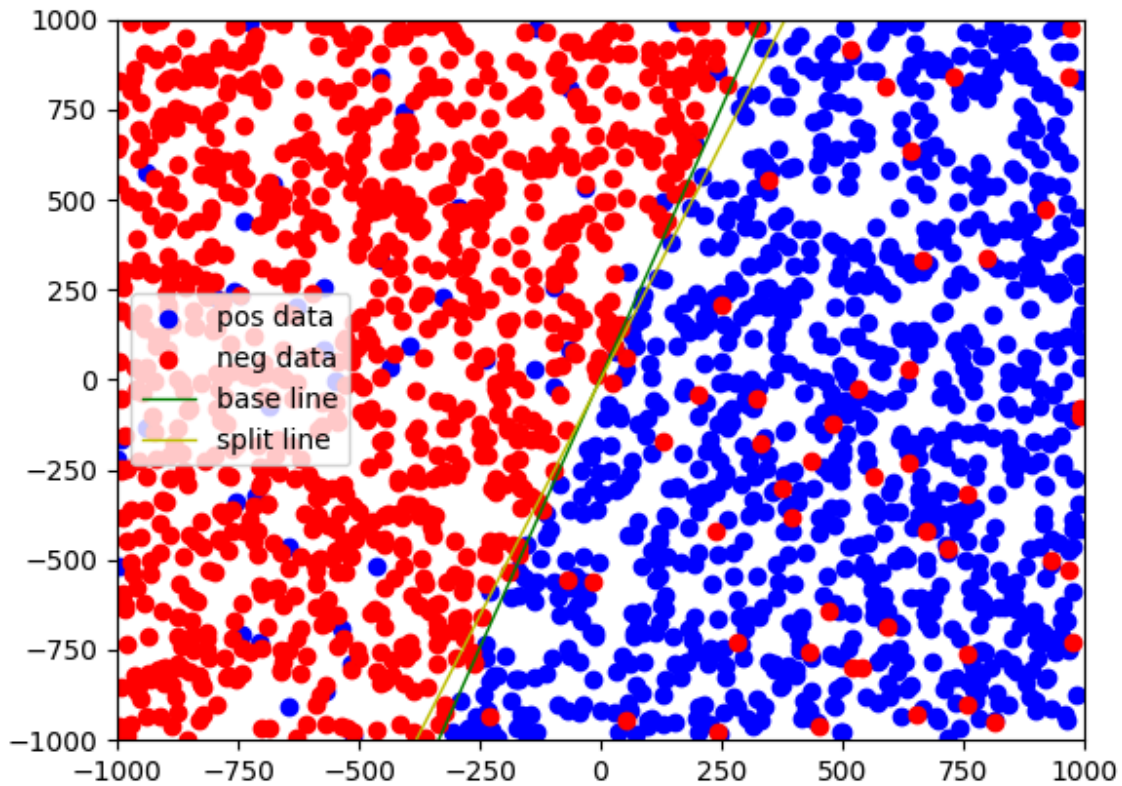
### 2. PLA and Pocket execution times diff



PLA: 0.014215s

Pocket: 0.2726s

### 3. Pocket Algorithm data\_2000\_50wrong



error nums: 107,

accuracy =  $1 - (107 / 2000) = 0.9465$

## Conclusion

和理論一致, PLA 在線性可分割的資料集下必定能收斂, 且 Pocket 的 run time 會比 PLA 更久

## Discussion

貌似有時候 Pocket 會找到局部最小值而不會完全收斂, 這件事情要怎麼避免呢?