CV HW2 report

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# Part 1

1. Report accuracy of two settings

* Tiny images + KNN: 0.2273
* Bag of sift + KNN: ?

1. Plot confusion matrix of two settings

* Tiny images + KNN:
* Bag of sift + KNN:

1. Compare the results of both settings and   
   explain the result

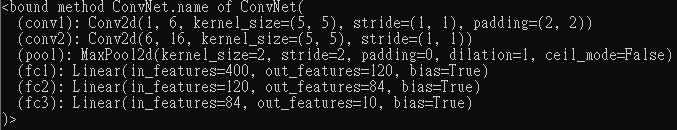
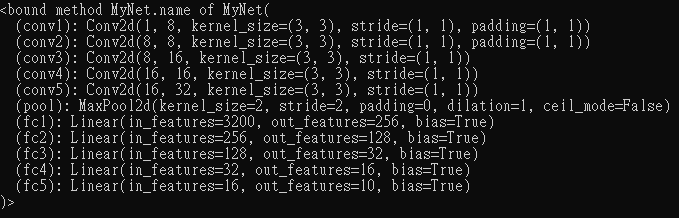
Tiny images的做法僅僅是將原圖的resolution降低，再pixel-wise的計算兩張圖的Euclidean distance，當作KNN當中的距離求出最接近的training data。

Bag of sift的做法會用sift求出多個descriptors再計算預先建好的vocabulary的出現次數當作feature，相較於Tiny image中pixel-wise的計算方式，這些sift descriptor具有更好的比較意義。

從Confusion matrix中可以看到，使用tiny images方法預測

# Part 2

1. Print the network architectures &   
   number of parameters of both models

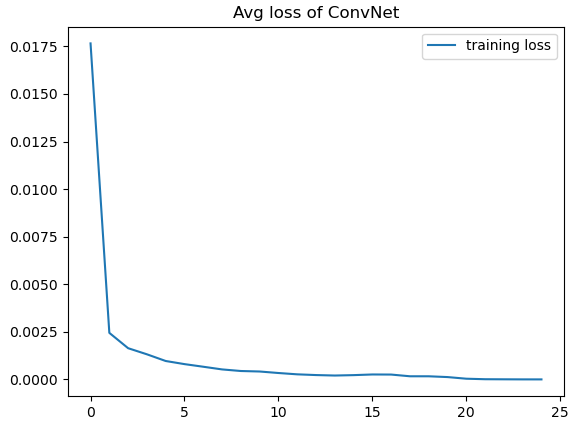
* Baseline model (LeNet-5):   
  
* Improved model (MyNet):   
  

1. Plot the learning curve (loss, accuracy) of   
   the training process(train/validation)

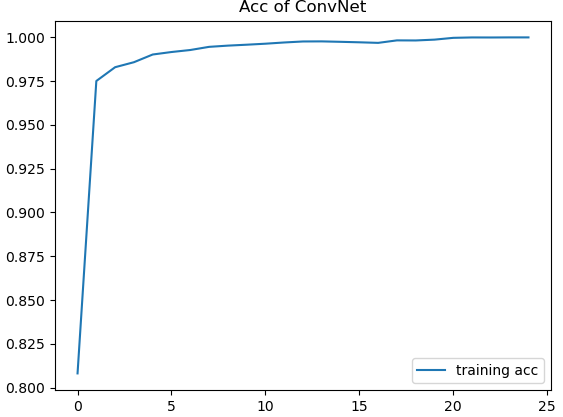
兩個model的訓練過程皆使用25個epoch

* Baseline model (LeNet-5):

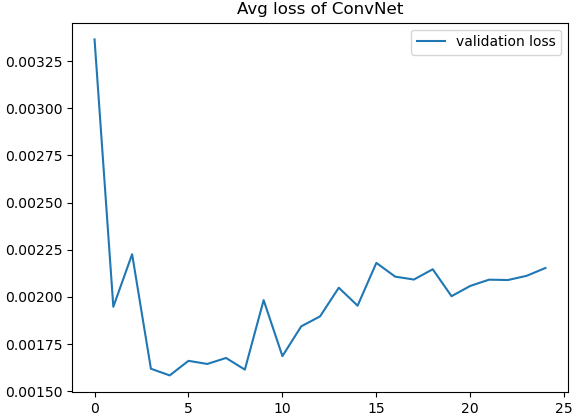
1. Learning curve of training loss



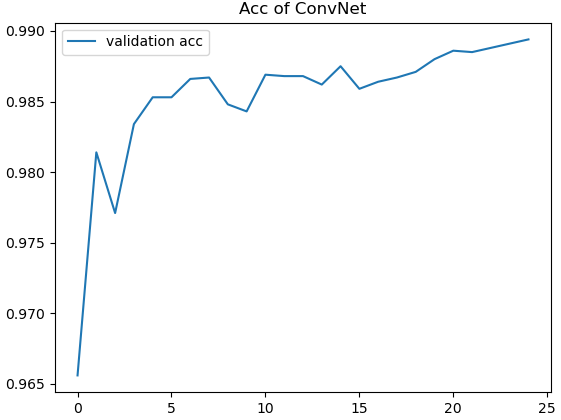
1. Learning curve of training accuracy



1. Learning curve of validation loss

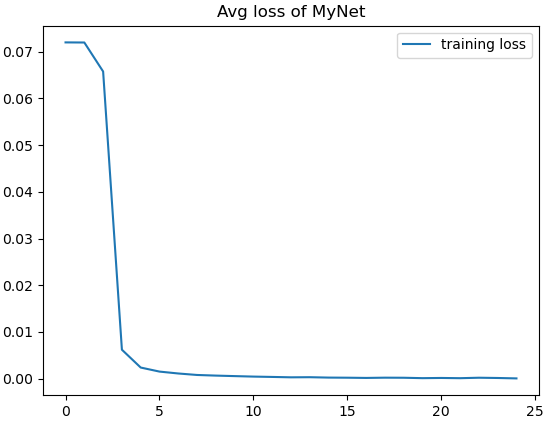


1. Learning curve of validation accuracy

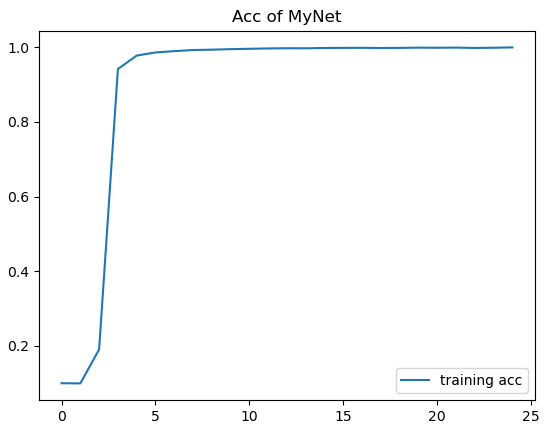


* Improved model (MyNet):

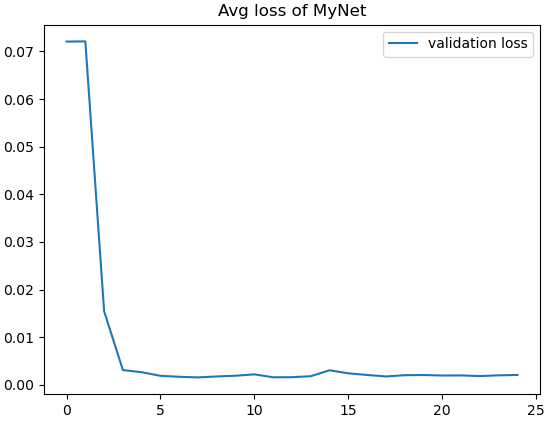
1. Learning curve of training loss



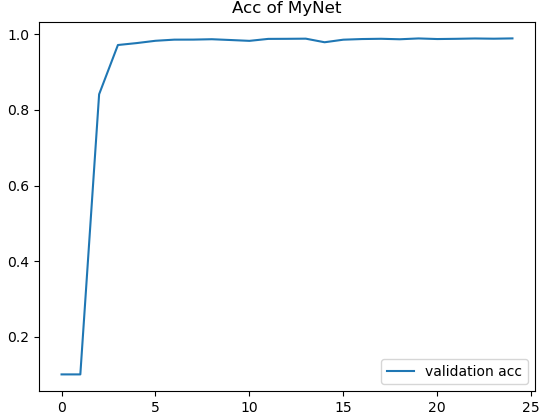
1. Learning curve of training accuracy



1. Learning curve of validation loss



1. Learning curve of validation accuracy



1. Compare the results of both model and explain the result

LeNet在validation set上最好的預測結果為: 98.98%的準確率。網路的架構非常單純，只有三種

MyNet在validation set上最好的預測結果為: 98.94%。