**Homework 1: Face Detection Report Template**

# Part I. Implementation (5%):

一張含有 文字, 螢幕擷取畫面, 軟體, 多媒體軟體 的圖片

自動產生的描述

一張含有 文字, 螢幕擷取畫面, 軟體, 多媒體軟體 的圖片

自動產生的描述

一張含有 文字, 螢幕擷取畫面, 軟體, 陳列 的圖片

自動產生的描述

一張含有 文字, 螢幕擷取畫面, 軟體, 陳列 的圖片

自動產生的描述

# Part II. Results & Analysis (10%):

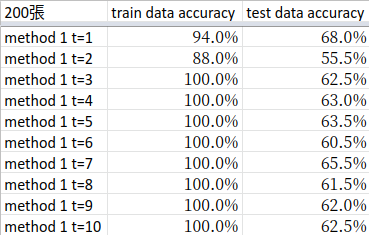
一張含有 文字, 螢幕擷取畫面, 字型 的圖片

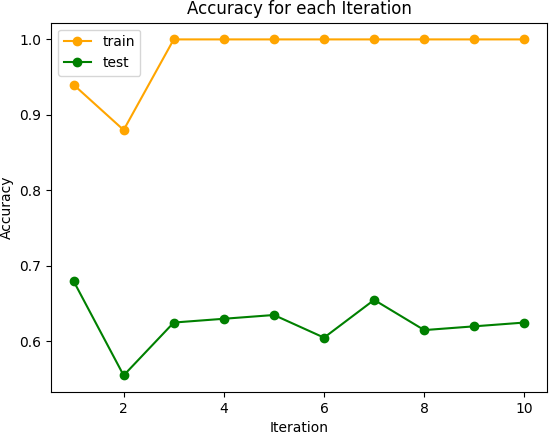
自動產生的描述



* **Your analysis or observation.**

Please discuss the performance difference between the training and testing dataset, and present the results using a table or chart as follows. Moreover, compare the results of the two classifiers trained by different datasets.





# Part III. Answer the questions (15%):

1. Please describe a problem you encountered and how you solved it.
2. How do you generate “nonface” data by cropping images?
3. What are the limitations of the **Viola-Jones’ algorithm**?
4. Based on **Viola-Jones’ algorithm**, how to improve the accuracy except changing the training dataset and parameter T?
5. Other than **Viola-Jones’ algorithm**, please propose another possible **face detection** method (no matter how good or bad, please come up with an idea). Please discuss the pros and cons of the idea you proposed, compared to the Adaboost algorithm.