

# # Assignment 3

# Long-Tailed Dataset

ACV Autumn  
Oct 26, 2020



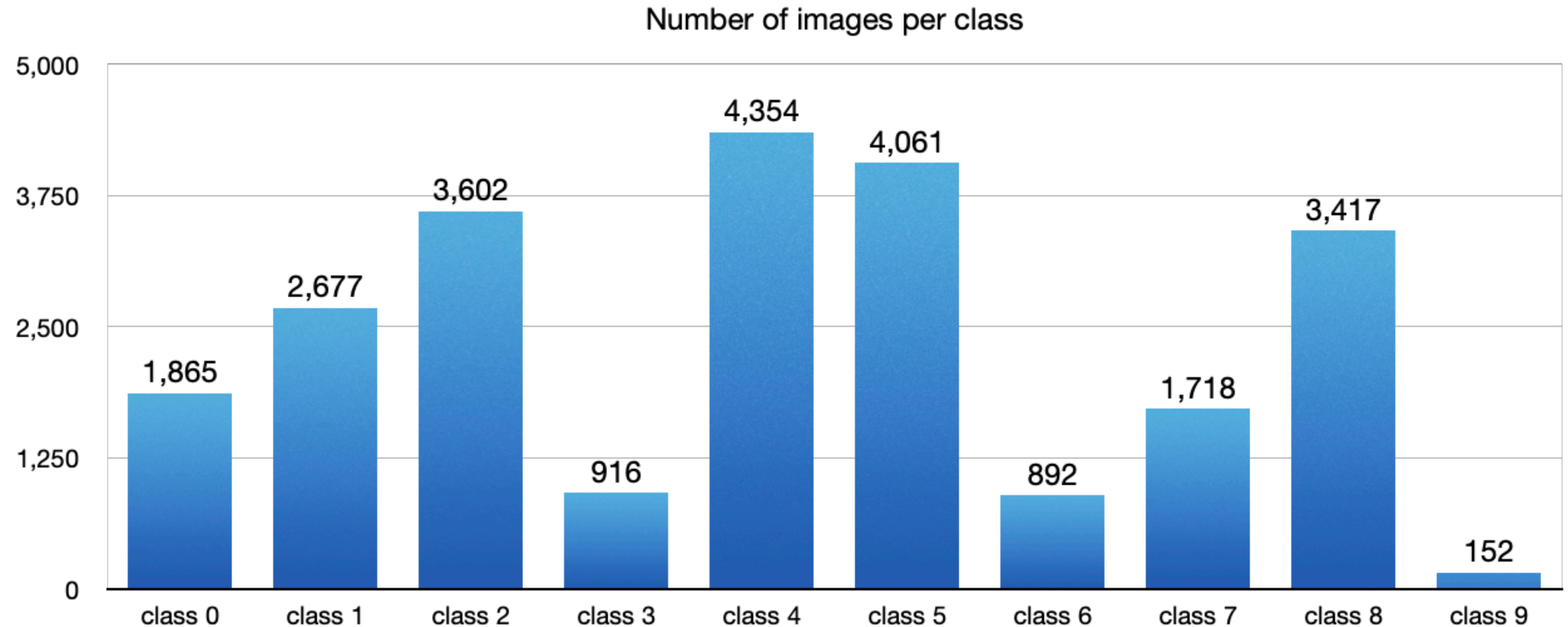
國立交通大學  
National Chiao Tung University

# Requirement

- Use the given long-tailed CIFAR-10 dataset to train a classifier from scratch.
- Apply any method to improve the poor performance caused by the imbalance data.
- **Write a report:**
  - How you deal with the imbalance problem.
  - Your training model and your experimental details.
  - The comparison of the test accuracy and the 10 per-class test accuracies before/after applied your method.

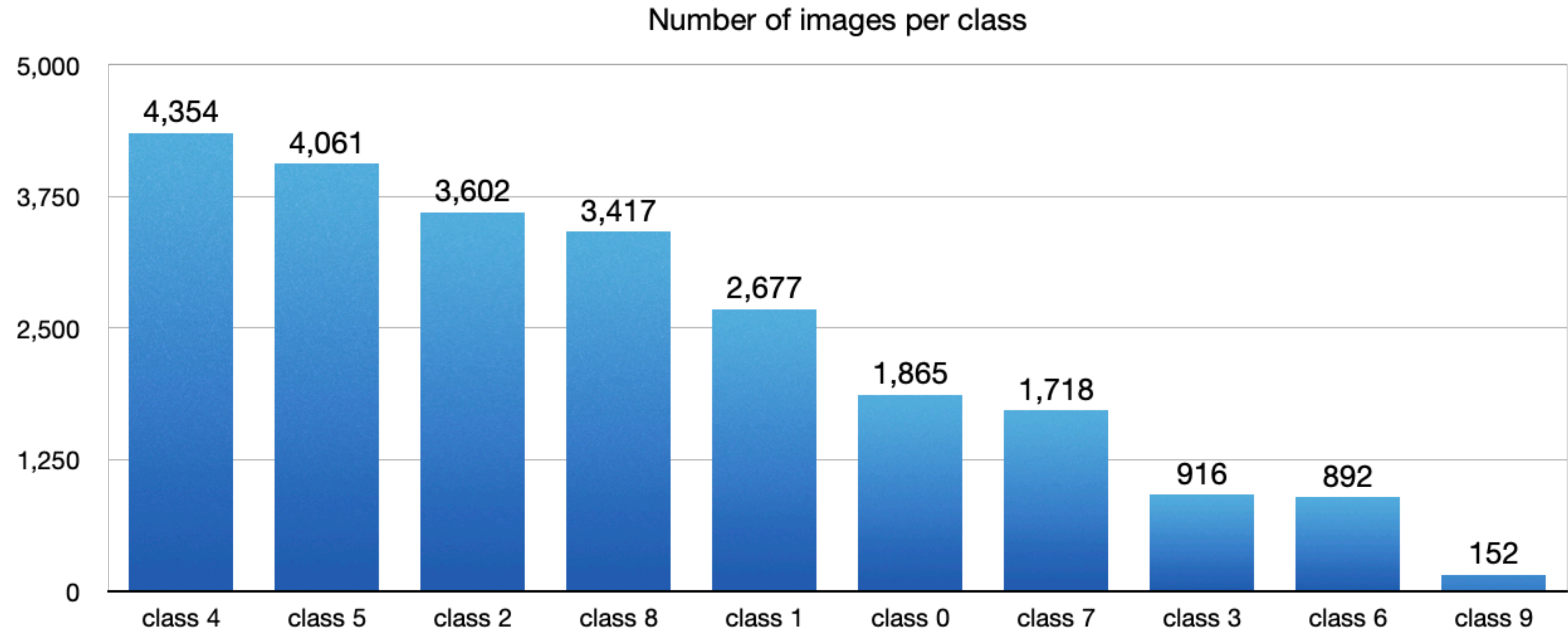


# Long-Tailed CIFAR-10





# Long-Tailed CIFAR-10 (Sorted)



# Rules

- For any data processing method (re-sampling, data augmentation...), you are **only** allowed to use the given long-tailed data to do the data processing.
- You can use any model to do the training.
- Implement in **python3**.
- Do not copy/paste others code.
- Feel free to modify the code provided by TA as long as the training data are the same.



# Submission

- Every submission should consist of the followings:
  - Your code (student\_id.py)
  - A readme.txt file describing how to run your code
  - A report (in pdf format)
- Please clip all your files into <student\_id>.zip and submit through New e3
- Due on **Dec 7, 2020 23:55:00**



# Score

- 30 points for your code
- 70 points for your report



# Reference

## CIFAR-10

- <https://www.cs.toronto.edu/~kriz/cifar.html>





- If you have any question about this homework, please e-mail to TAs
- Ching-Hao Wang (王敬豪) [billywang.ee08g@nctu.edu.tw](mailto:billywang.ee08g@nctu.edu.tw)
- Chieh-Yun Chen (陳婕云) [cychen.ee09g@nctu.edu.tw](mailto:cychen.ee09g@nctu.edu.tw)

