

# Sayantan Dutta

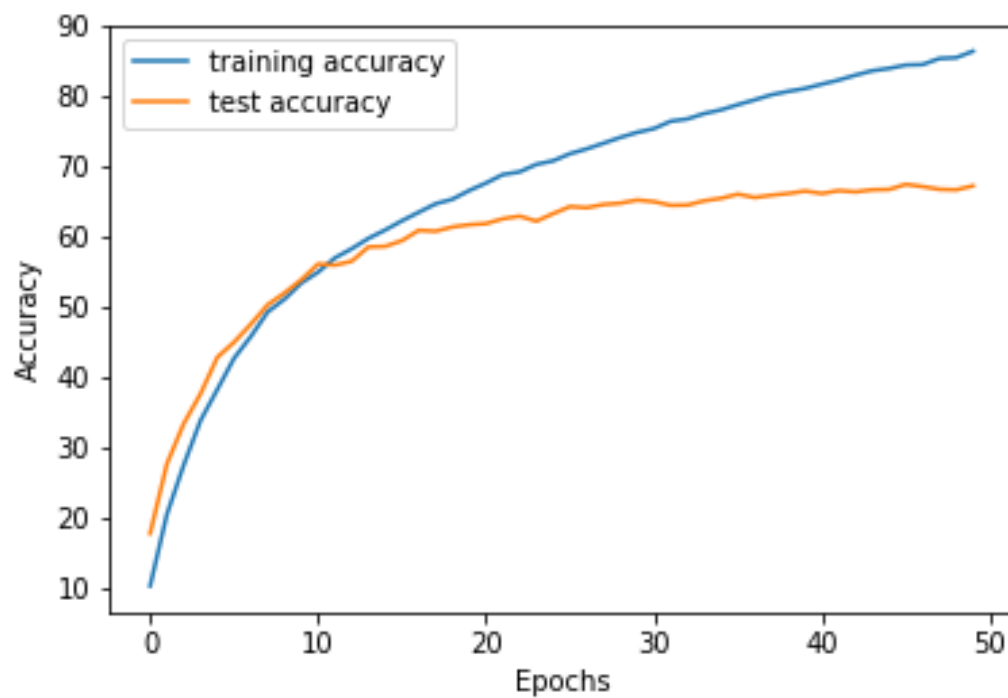
## Task-1

Program: resnet\_cifar100.py

Test accuracy: 67.15764%

Train accuracy: 86.3511%

Number of epochs = 50



*Figure: resnet cifar100 accuracy plot for test and train set*

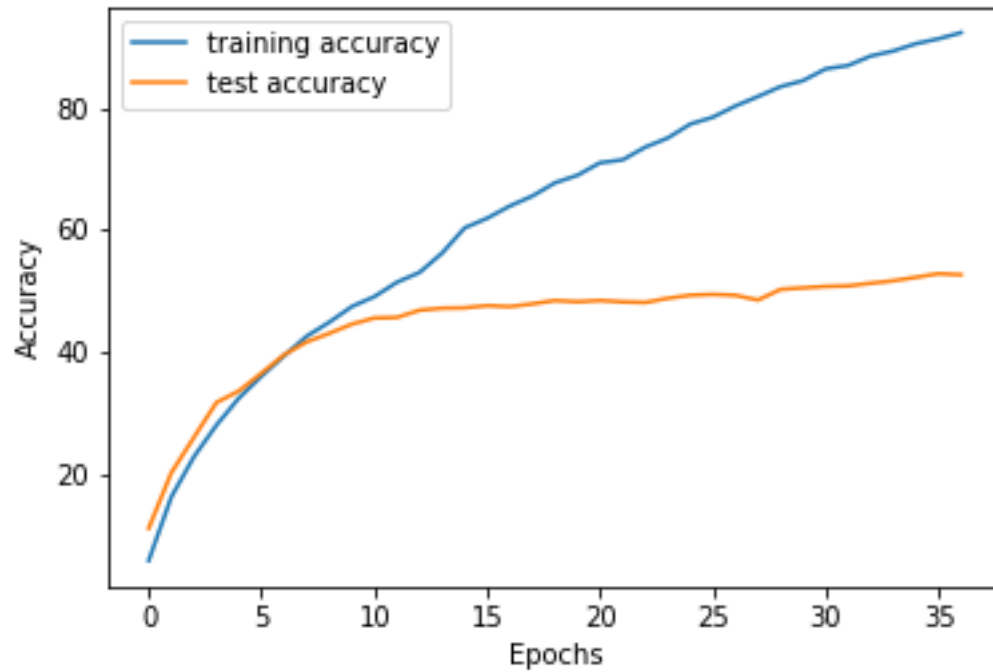
## Task-2

Program: resnet\_tinyimagenet.py

Test accuracy: 52.66640127%

Train accuracy: 92.29746481%

Number of epochs = 37



*Figure: resnet tinyimagenet accuracy plot for test and train set*

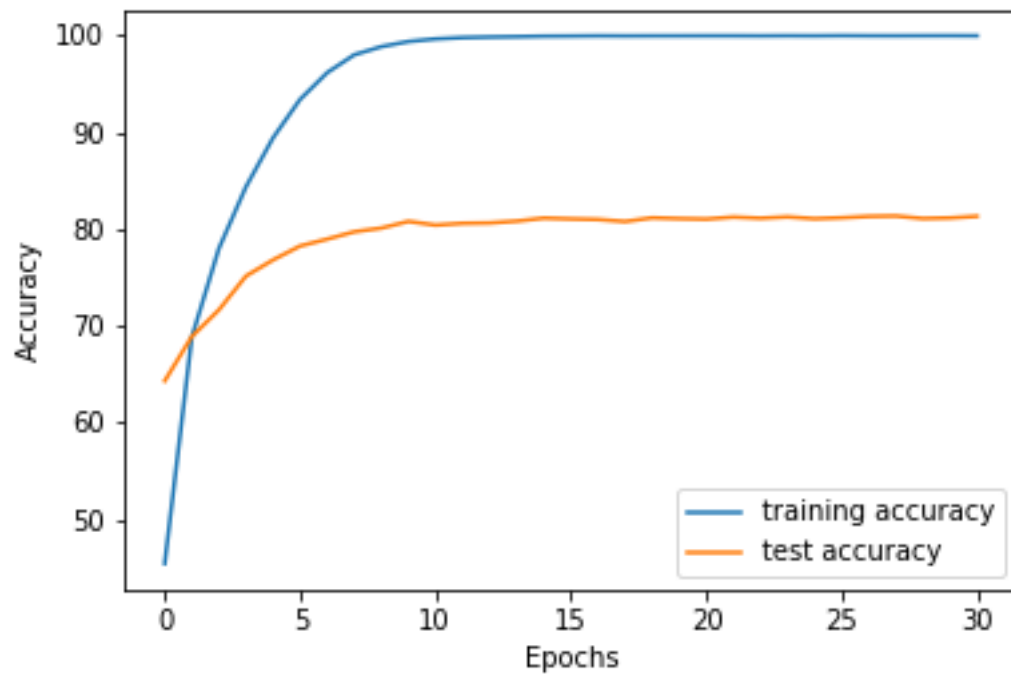
### Task-3

Program: pretrained\_cifar100.py

Test accuracy: 81.29992%

Train accuracy: 99.93402111%

Number of epochs = 31



*Figure: pretrained cifar100 accuracy plot for test and train set*

#### **Task-4**

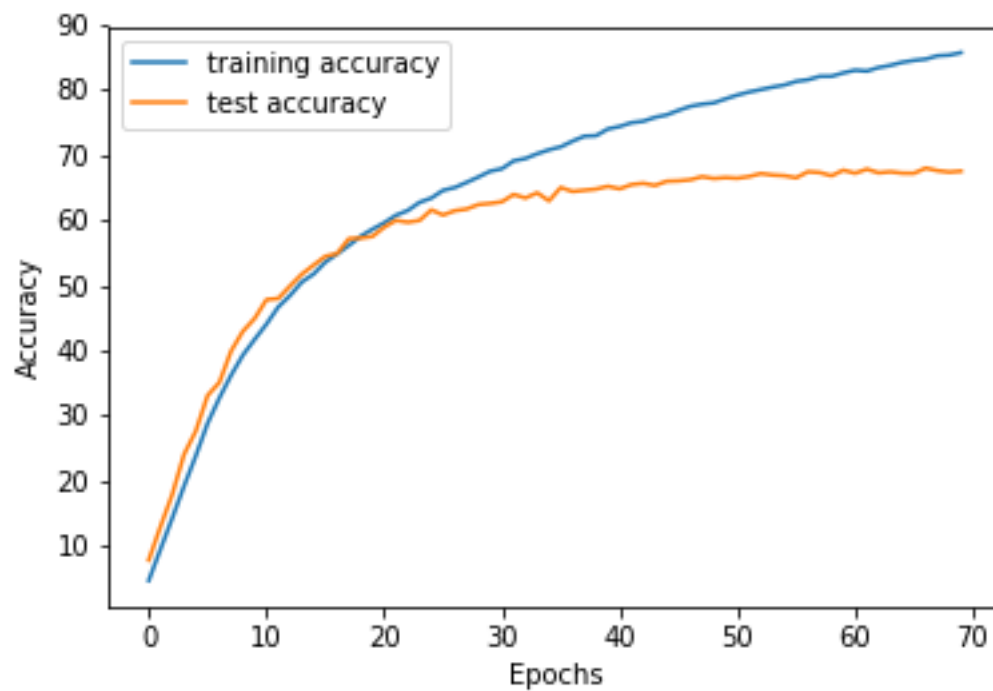
Program: sync\_sgd\_cifar100.py

Test accuracy: 67.53582802547771%

Train accuracy: 85.76166879795396%

Number of nodes used = 8 (Used Bluewater)

Number of epochs = 70



*Figure: sync sgd cifar100 accuracy plot for test and train set*

## Task-5

Program: async\_sgd\_cifar100.py

After 4 epochs achieved test accuracy: 41.63017515923567%

Train accuracy: 38.650895140664964%

Number of nodes used = 2 (Used Bluewater)

Number of epochs = 4

After 4 epochs there were some issues in bluewater and couldn't run it on bluewater thereafter due to lack of time.