

## Basic Log Files Naming Convention

c10 - cifar 10  
c100 - cifar 100

gate\_classifier - model that works

### **Folder - cifar\_resnets\_findingbestval**

Miscellaneous type A.

Name construction scheme used :

Base resnet : Resnet110,  
sc : scratch,  
lt1 : gate/model iterations ratio = 1  
g-2 : gate initial lr = 0.01  
c : gate learning rate is constant  
m-1 : model initial lr = 0.1  
3248 : reduce model lr at 32k, 48k iterations  
4770 : reduce model lr at 47k, 70k iterations  
Xe-y : the val/train split ratio

e.g. runs\_c10\_resnet\_gate\_classifier110\_scit1g-2cm-1\_3248\_1e-1

### **Folder - cifar\_resnets\_modified\_val**

Block level gates type F

Contains trainings on gate classifier model with a 45k/5k train/val split

4770 : reduce model lr at [133, 200] epochs  
\_bi\_ : baseline initialisation  
\_scratch\_ : random initialisation  
lt3 - gate/model iterations ratio = 3  
g-3 : gate initial lr = 0.001  
c/no c : constant gate lr/reduce gate lr by 0.1 every 50 epochs  
m-1 : model initial lr = 0.1  
\_lr1by347last : reduce model lr by 1/3rd instead of 0.1, reduce at 133rd epoch only  
\_lr1by34770 : reduce model lr by 1/3rd instead of 0.1, reduce at 133rd and 200th epochs

### **Folder - cifar\_resnets\_modified**

Block level gates types C, E, G, H, I

Contains trainings on 50k images trainset

Name construction scheme used is same as above. Key of different folders :

- c100res110\_gate\_classifier - resnet 110, cifar 100, gate classifier
- gate\_classifier\_c10\_4runs - 4 runs on each of cifar 10, resnet 110 to report performance of 5 runs
- gate\_classifier\_c10\_b2b3scratch
- gate\_classifier\_c10\_it1 - single run, cifar 10, resnet 110, gate/model iterations ratio = 1
- gate\_classifier\_c10\_it3 - single run, cifar 10, resnet 110, gate/model iterations ratio = 3

- gate\_classifier\_c10\_it5 - single run, cifar 10, resnet 110, gate/model iterations ratio = 5
- gate\_classifier\_c100\_4runs - 4 runs on each of cifar 100, resnet 164 to report performance of 5 runs
- gate\_classifier\_c100\_it1 - single run, cifar 100, resnet 164, gate/model iterations ratio = 1
- modl3cel\_cifar10\_bceloss - model with 2 way softmax output gate, trained using binary cross entropy loss
- modl3cel\_cifar10\_celoss - model with 2 way softmax output gate, trained using cross entropy loss
- modl3cel\_cifar100 - model with 2 way softmax output gate, trained using binary cross entropy loss
- modl3cel\_cifar100\_celoss - model with 2 way softmax output gate, trained using cross entropy loss

### **Folder - cifar\_resnets\_gating\_withloss**

Layer level gates, type B model

50k train images

\_shg\_ : shortcut only gating

\_exg\_ : exclusive gating

\_0e-2 :  $\lambda = 0.01$

### **Folder - cifar\_resnets\_modified\_l3\_gnorm\_entropy**

Block level gates type B and D

50k train images

xe+/-y :  $\lambda$  value