Machine Learning 2 Assignment, Fractal 1, Semester 2

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Code: GitHub Link

Task 1

Layer	Activation Map Dim	No. of Kernels	Input Dim	Output Dim	No. of Weights	Calculation of Weights
CONV_Layer						
Input Image			(N, 3, 32, 32)			
L1-convblock1(P=1, S=1)	3x3	64	(N, 3, 32, 32)	(N, 64, 32, 32)	1728	(=64*3*3*3)
MaxPool2d	2x2		(N, 64, 32, 32)	(N, 64, 16, 16)	0	
L2-convblock2(P=1, S=1)	3x3	32	(N, 64, 16, 16)	(N, 32, 16, 16)	18432	(=32*3*3*64)
MaxPool2d	2x2		(N, 32, 16, 16)	(N, 32, 8, 8)		
L2-convblock2(P=1, S=1)	3x3	16	(N, 32, 8, 8)	(N, 16, 8, 8)	4608	(=16*3*3*32)
Dropout1(p=0.1)						
FC_Layer						
Linear			(N, 1024)	(N, 128)	131072	(=1024*128)
Dropout(p=0.25)						
Linear			(N, 128)	(N, 10)	1280	(=128*10)
TOTAL					157120	Sum of all above

Note:

1. I didn't consider Batch Normalization here, as it adds some extra parameters internally

2. I didn't use BIAS in the network, so it's all 0