CNN Models

This page hosts all of the main model architectures utilised in our project, indexed by model number (MN). ### MN_0

MN_1

1. CONV (filters=3,kernel_size=(3,3),padding='same',strides=(3,3),activation="relu", input_shape=shape)
2. BN
3. CONV (filters=3,kernel_size=(3,3),padding='same')
4. BN
5. MAXPOOL (pool_size=(3,3))
6. CONV (filters=6,kernel_size=(3,3),padding='same')
7. BN
8. CONV (filters=6,kernel_size=(3,3),padding='same')
9. BN
10. MAXPOOL (pool_size=(3,3))
11. DENSE (units=128,activation='relu')
12. DO (0.2) (without layout optimiser)
13. DENSE (units=10,activation='softmax')
14. FLATTEN
15. DENSE (units=1,activation='linear')

MN_1.5

1. CONV (filters=3,kernel_size=(3,3),padding='same',strides=(3,3),activation='relu',input_shape=shape)
2. BN
3. CONV (filters=3,kernel_size=(3,3),padding='same')
4. BN
5. MAXPOOL (pool_size=(3,3))
6. CONV (filters=6,kernel_size=(3,3),padding='same')
7. BN

8. CONV (filters=6,kernel_size=(3,3),padding='same')
9. BN
10. MAXPOOL (pool_size=(3,3))
11. FC (units=128,activation='relu')
12. DO (0.2) (without layout optimiser)
13. FC (units=10,activation='softmax')
14. FLATTEN
15. FC (units=1,activation='linear')

MN_2

1. CONV (filters=3,kernel_size=(3,3),padding='same',input_shape=shape)
2. MAXPOOL (pool_size=(2,2),padding='same')
3. ReLU
4. BN
5. CONV (filters=6,kernel_size=(5,5),padding='same')
6. MAXPOOL (pool_size=(2,2),padding='same')
7. ReLU
8. BN
9. AVGPOOL
10. DO (0.2) (without layout optimiser)
11. DENSE (units=64,activation='relu')
12. DO (0.2) (without layout optimiser)
13. DENSE (units=10,activation='softmax')
14. FLATTEN
15. DENSE (units=1,activation='linear')

MN_3

1. CONV (filters=3,kernel_size=(3,3),padding='same',input_shape=shape)
2. MAXPOOL (pool_size=(2,2),padding='same')
3. ReLU
4. BN
5. CONV (filters=4,kernel_size=(4,4),padding='same')
6. MAXPOOL (pool_size=(2,2),padding='same')
7. ReLU
8. BN
9. CONV (filters=6, kernel_size=(5,5),padding='same')
10. MAXPOOL (pool_size=(2,2),padding='same')
11. ReLU
12. BN

13. AVGPOOL
14. DO (0.1) (without layout optimiser)
15. FC (units=128,activation='relu')
16. DO (0.1) (without layout optimiser)

MN_3*

1. CONV (filters=3,kernel_size=(3,3),padding='same',input_shape=shape)
2. MAXPOOL (pool_size=(2,2),padding='same')
3. ReLU
4. BN
5. CONV (filters=4,kernel_size=(5,5),padding='same')
6. MAXPOOL (pool_size=(2,2),padding='same')
7. ReLU
8. BN
9. CONV (filters=6, kernel_size=(5,5),padding='same')
10. MAXPOOL (pool_size=(2,2),padding='same')
11. ReLU
12. BN
13. AVGPOOL
14. DO (0.1) (without layout optimiser)
15. FC (units=128,activation='relu')
16. DO (0.1) (without layout optimiser)
17. FC (units=3,activation='relu')
18. FLATTEN
19. FC (units=1,activation='linear')