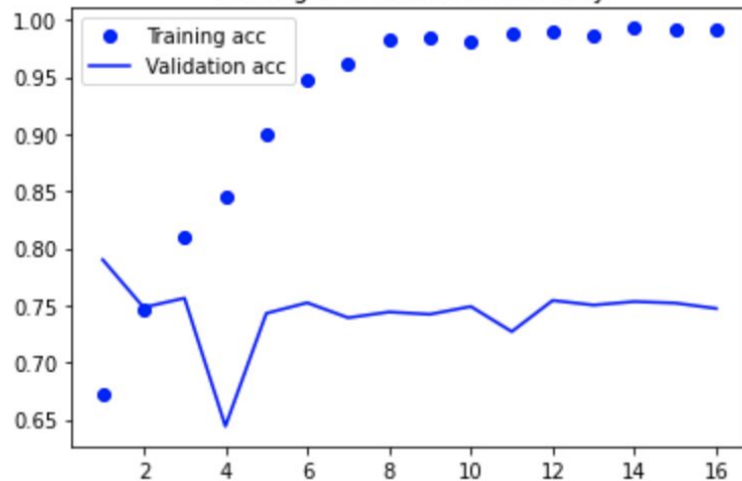
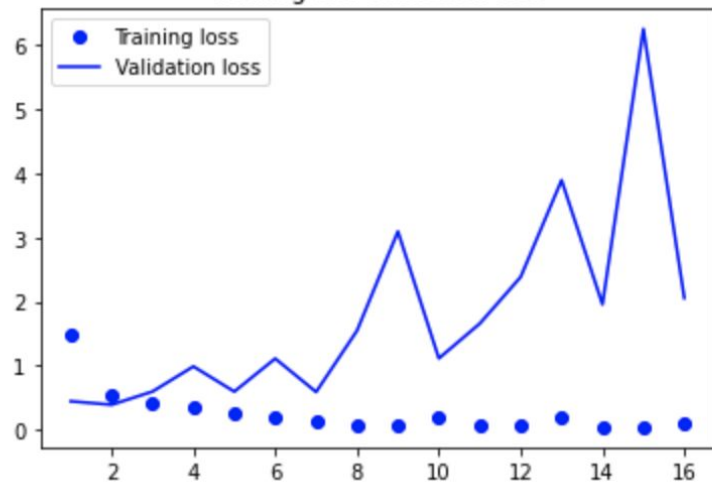




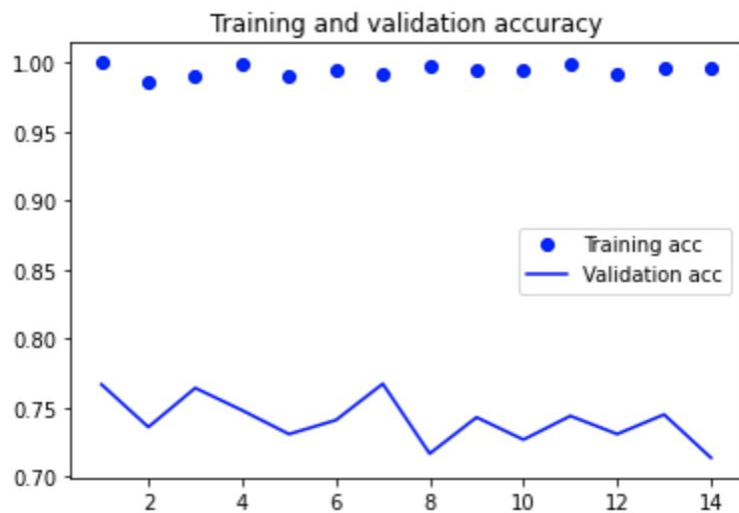
Training and validation accuracy



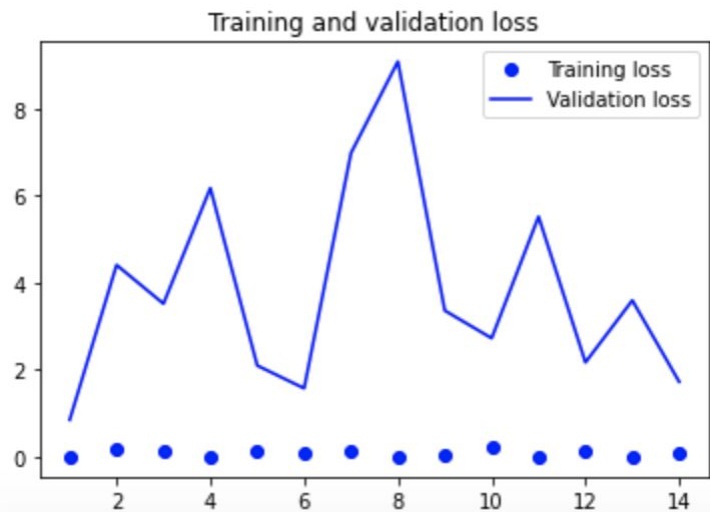
Training and validation loss

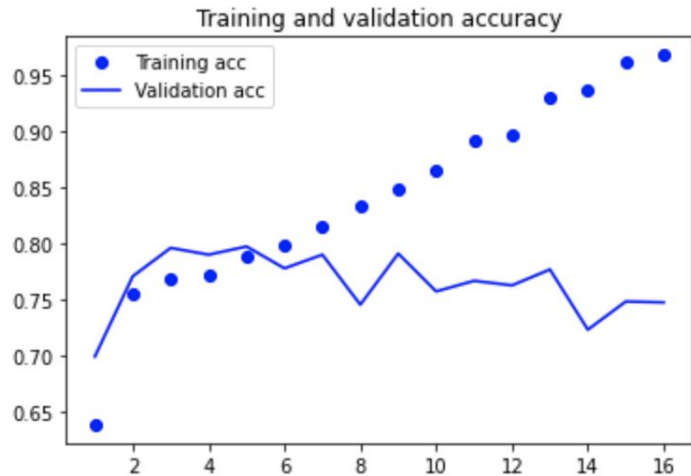


- data set \_16
- Made boxes on fake images smaller (1.2\*i)
- 2 convolution layers
- 16 epochs:
  - loss: 0.0996
  - acc: 0.9910
  - val\_loss: 2.0550
  - val\_acc: 0.7472
- @ 14th epoch:
  - loss: 0.0492
  - acc: 0.9930
  - val\_loss: 1.9561
  - val\_acc: 0.7533

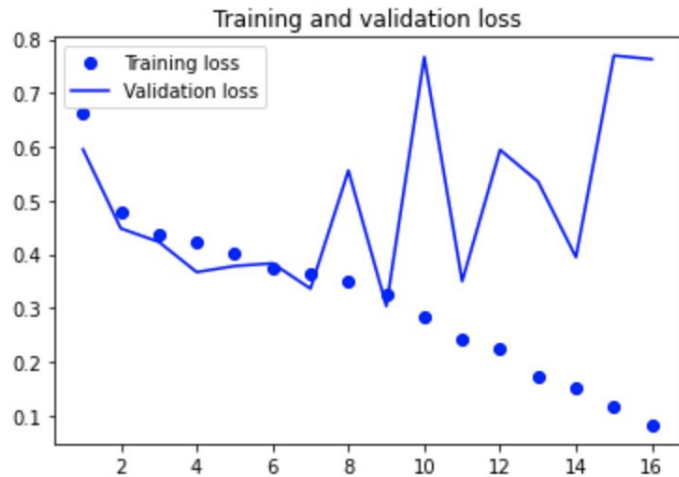


- Made boxes on fake images smaller (1.2\*i)
- 2 convolution layers
- 14 epochs:
  - loss: 0.1110
  - acc: 0.9965
  - val\_loss: 1.7257
  - val\_acc: 0.7139

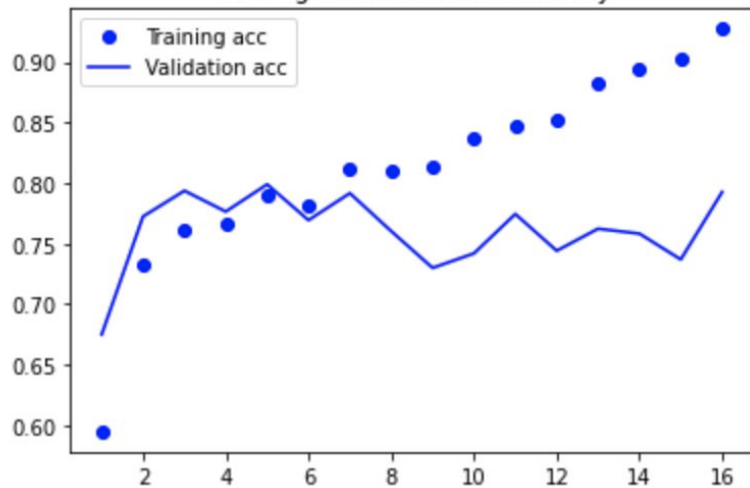




- Data set \_16
- Made boxes on fake images smaller (1.2\*i)
- 4 convolution layers
- 16 epochs:
  - loss: 0.0821
  - acc: 0.9675
  - val\_loss: 0.7631
  - val\_acc: 0.7472

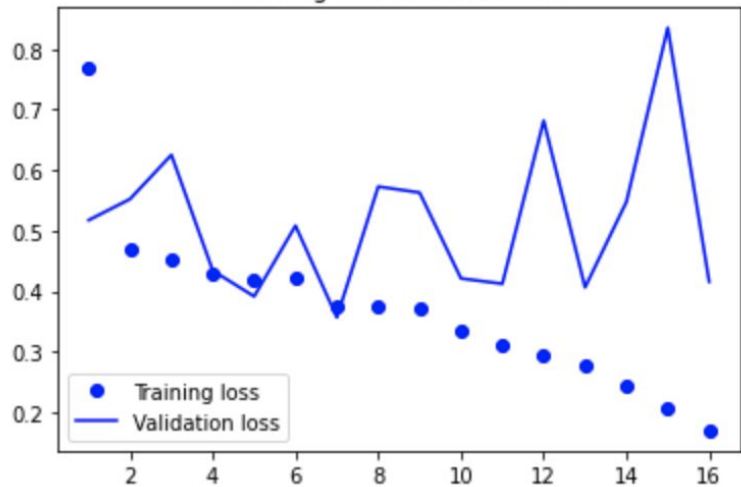


Training and validation accuracy



- Data set \_18
- Made boxes on fake images smaller (1.2\*i)
- 4 convolution layers
- 16 epochs:
  - loss: 0.1704
  - acc: 0.9275
  - val\_loss: 0.4158
  - val\_acc: 0.7927

Training and validation loss

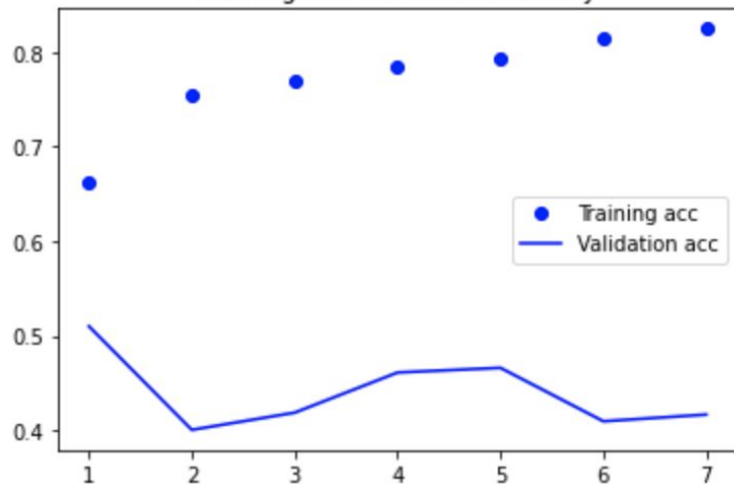


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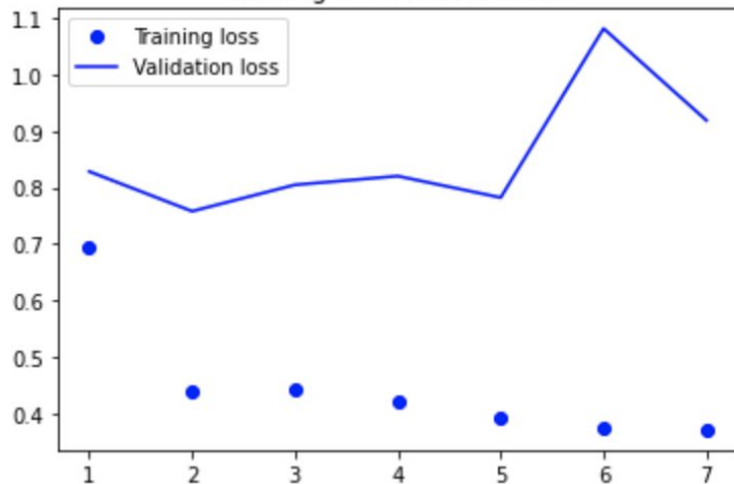
- Realized that in the prior code structure, the white boxes were MUCH larger on the validation fake images (since  $1.2*i$ ) and  $i = 1000$  to  $i = 1249$
- Test fake images were not edited, added same code as validation fake ^^
-



Training and validation accuracy

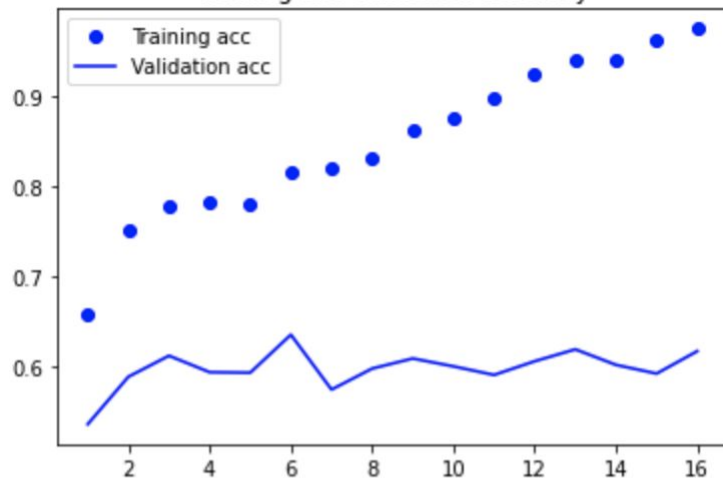


Training and validation loss

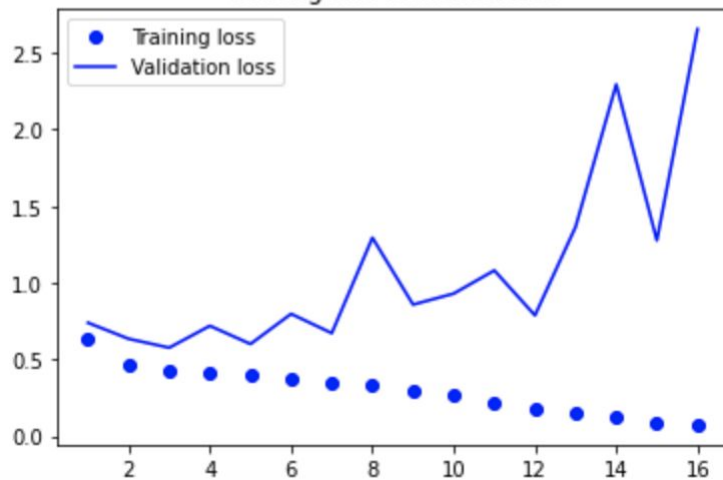


- Data set \_22
- Made boxes on fake images smaller ( $1.2 * (i/1000)$ )
- 4 convolution layers
- 7 epochs:
  - loss: 0.3717
  - acc: 0.8250
  - val\_loss: 0.9188
  - val\_acc: 0.4166
- Should be % 1000 to be symmetrical with the training, not / 1000

Training and validation accuracy



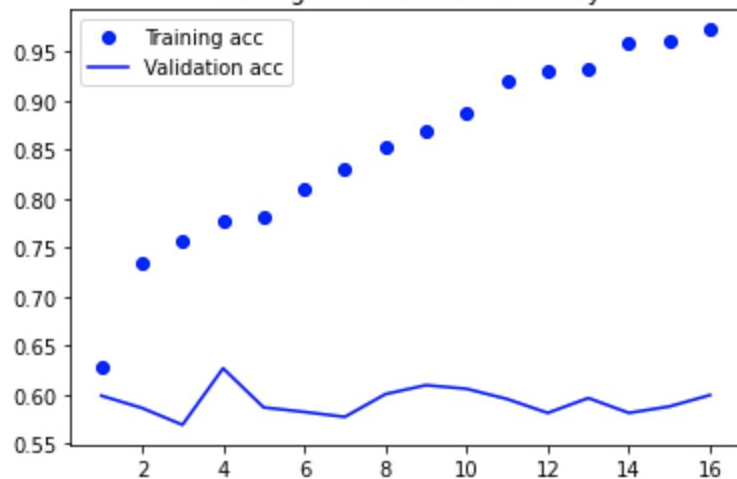
Training and validation loss



- Data set \_22
- Made boxes on fake images smaller (1.2\*(i%1000))
- 4 convolution layers
- 16 epochs:
  - loss: 0.0743
  - acc: 0.9745
  - val\_loss: 2.6559
  - val\_acc: 0.6178



Training and validation accuracy



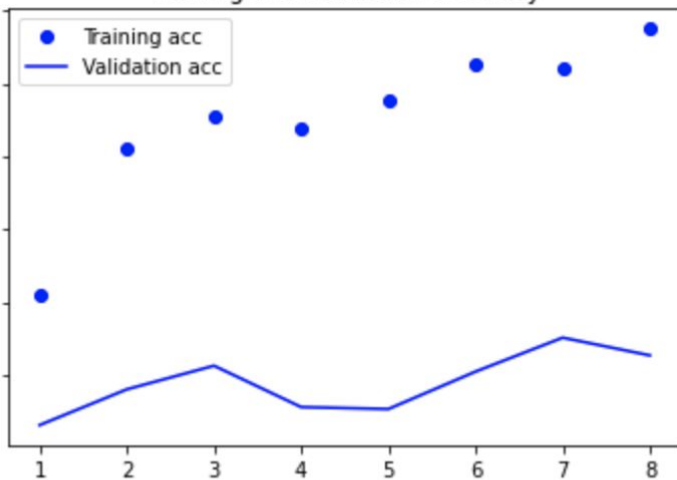
Training and validation loss



- Data set \_24
- $(0.5 \cdot (i \% 1000))$
- 4 convolution layers
- 16 epochs:
  - loss: 0.0693
  - acc: 0.9725
  - val\_loss: 1.6193
  - val\_acc: 0.5996
- 8th epoch:
  - Loss: 0.3106
  - acc: 0.8535
  - val\_loss: 1.3536
  - val\_acc: 0.6006

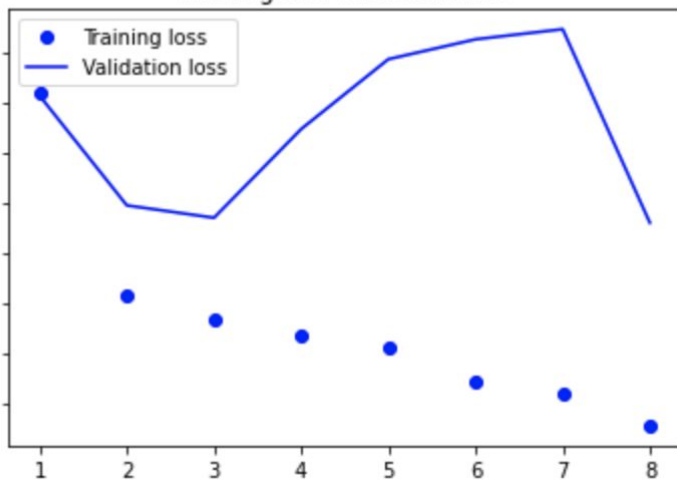


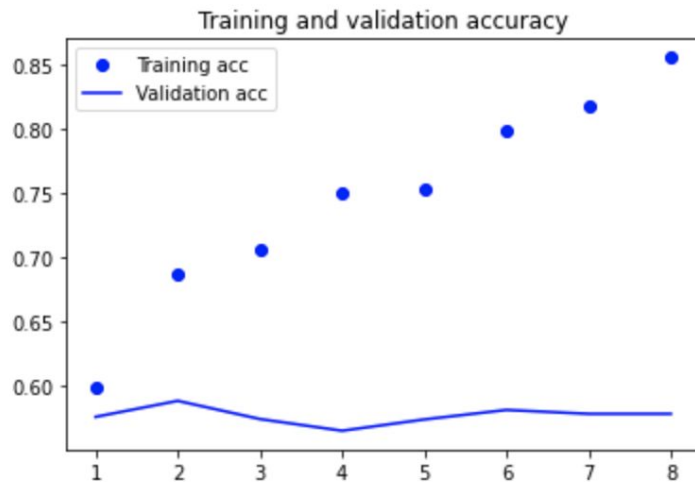
Training and validation accuracy



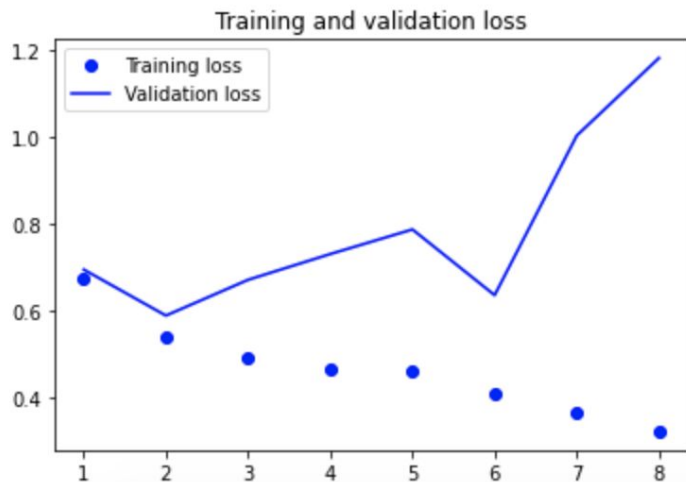
- Data set \_25
- $(1.5 * (i \% 1000))$
- 4 convolution layers
- 8 epochs:
  - loss: 0.3278
  - acc: 0.8375
  - val\_loss: 0.5304
  - val\_acc: 0.6138

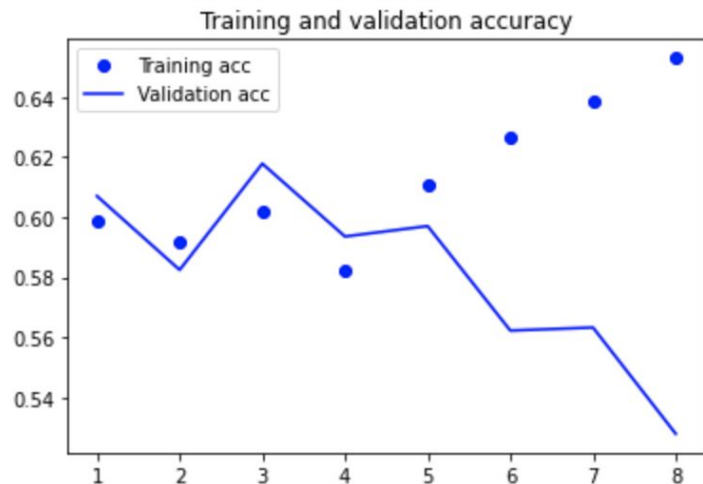
Training and validation loss



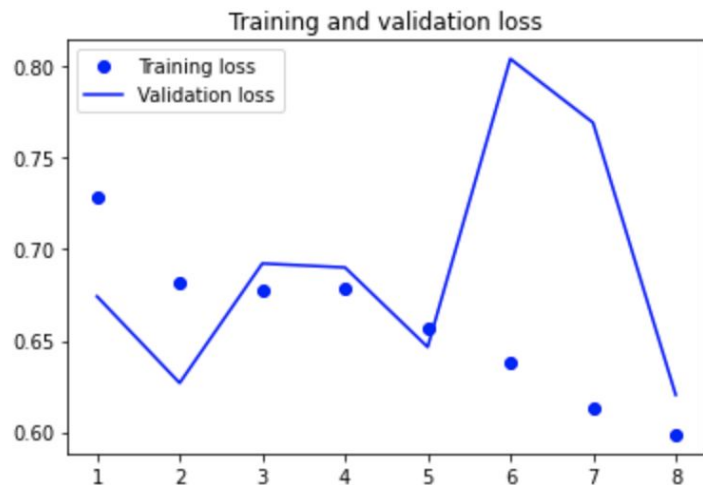


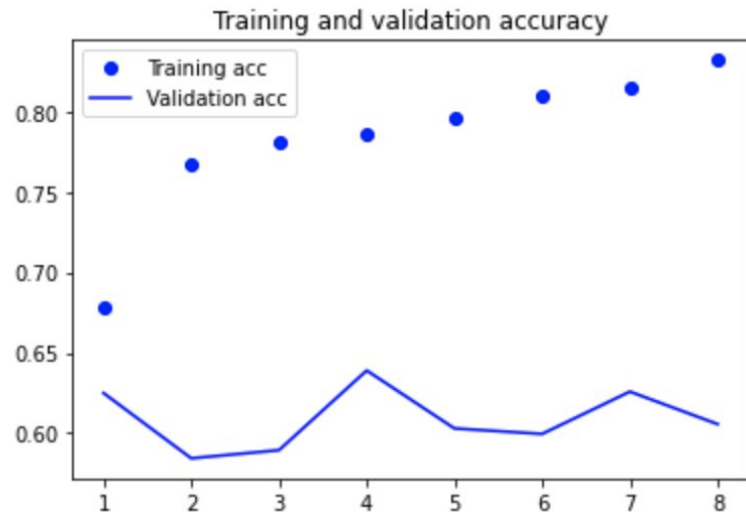
- Data set \_26
- $(0.05 * (i \% 1000))$
- 4 convolution layers
- 8 epochs:
  - loss: 0.3225
  - acc: 0.8555
  - val\_loss: 1.1808
  - val\_acc: 0.5784



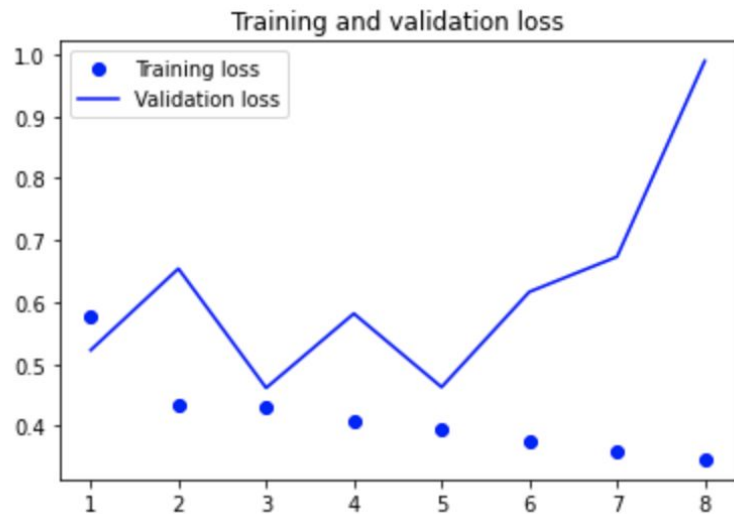


- Data set \_27
- $(0.05 * (i \% 1000))$
- 4 convolution layers
- 8 epochs:
  - loss: 0.5987
  - acc: 0.6530
  - val\_loss: 0.6204
  - val\_acc: 0.5278

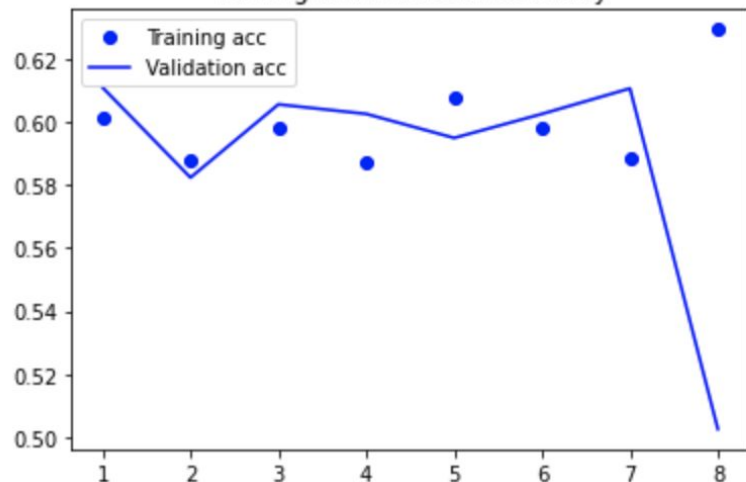




- Data set \_28
- $(2.0 * (i \% 1000))$
- 4 convolution layers
- 8 epochs:
  - loss: 0.3466
  - acc: 0.8320
  - val\_loss: 0.9893
  - val\_acc: 0.6057

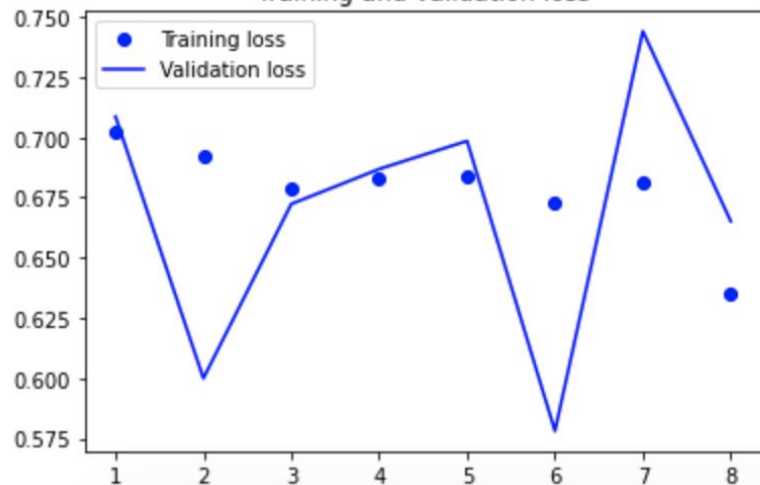


Training and validation accuracy



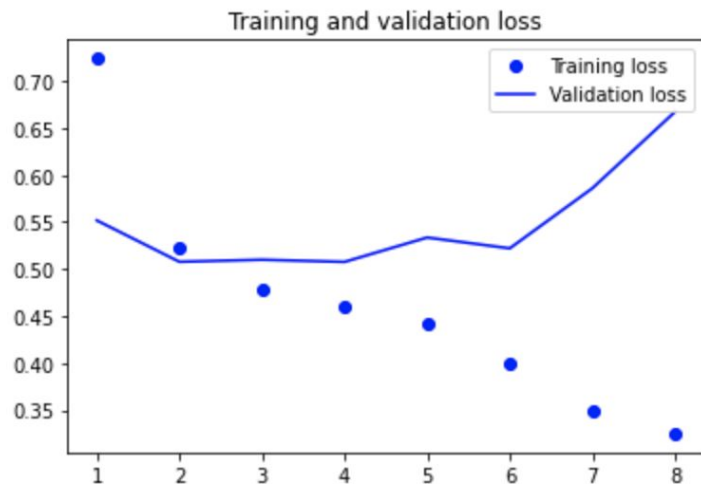
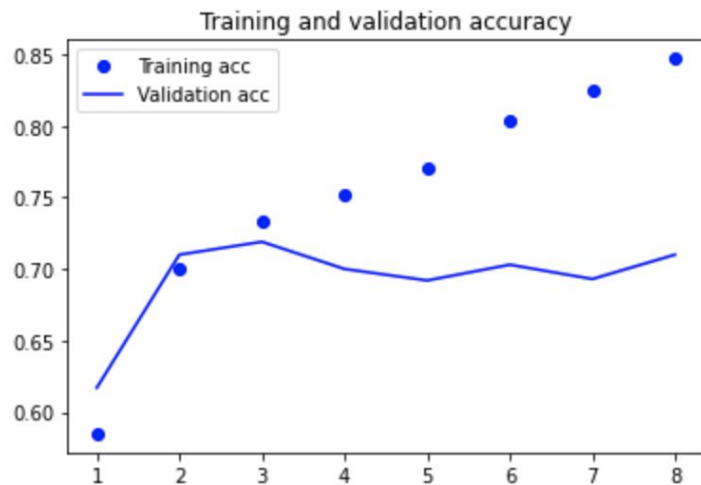
- Data set \_29
- $(0.005 * (i \% 1000))$
- 4 convolution layers
- 8 epochs:
  - loss: 0.6351
  - acc: 0.6295
  - val\_loss: 0.6651
  - val\_acc: 0.5025

Training and validation loss

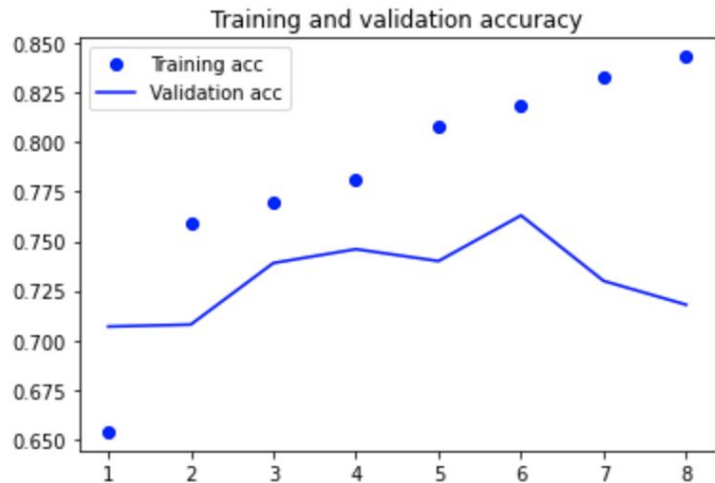


# 08/03 Update

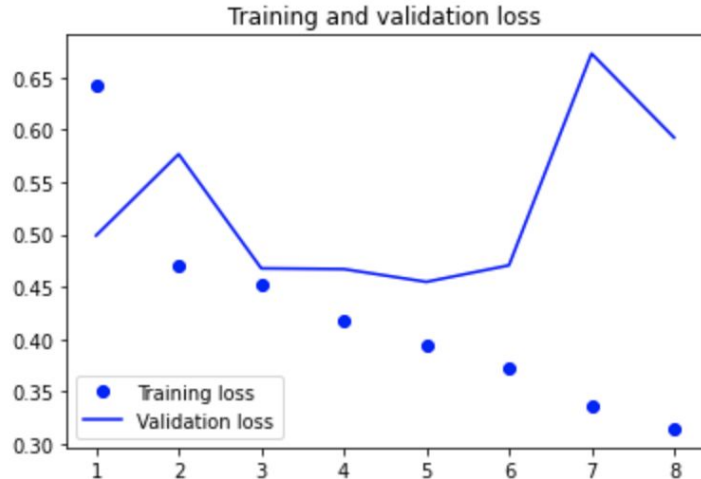
- Patch size range:
  - Change all to - 1000 (instead of %)
  - Test factors: 0.1, 0.5, 1
  - Change subtraction value (750, 500)



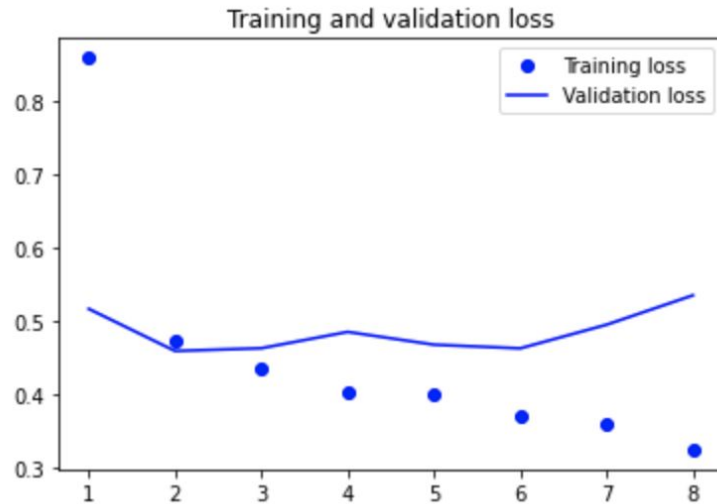
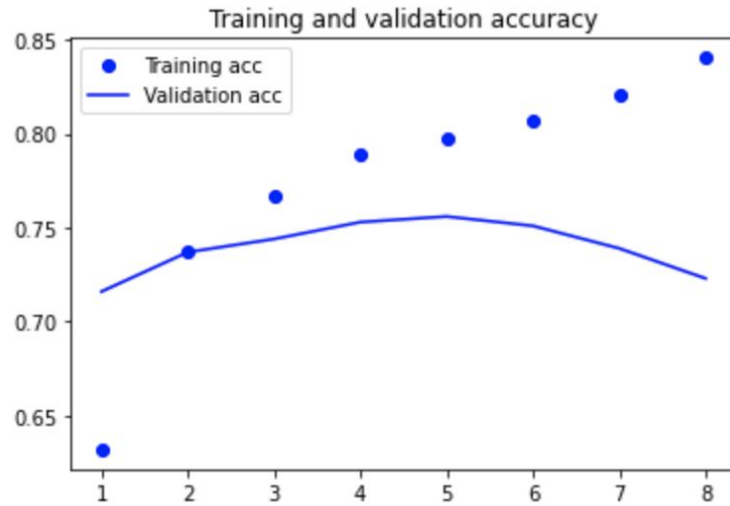
- Data set\_31
- $(0.1 * (i - 1000))$ 
  - Multiplication factor: 0.1
  - Subtraction factor: 1000
- 4 convolution layers
- 8 epochs:
  - loss: 0.3250
  - acc: 0.8470
  - val\_loss: 0.6673
  - val\_acc: 0.7100



- Data set \_32
- $(0.5 * (i - 1000))$ 
  - Multiplication factor: 0.5
  - Subtraction factor: 1000
- 4 convolution layers
- 8 epochs:
  - loss: 0.3144
  - acc: 0.8430
  - val\_loss: 0.5925
  - val\_acc: 0.7180

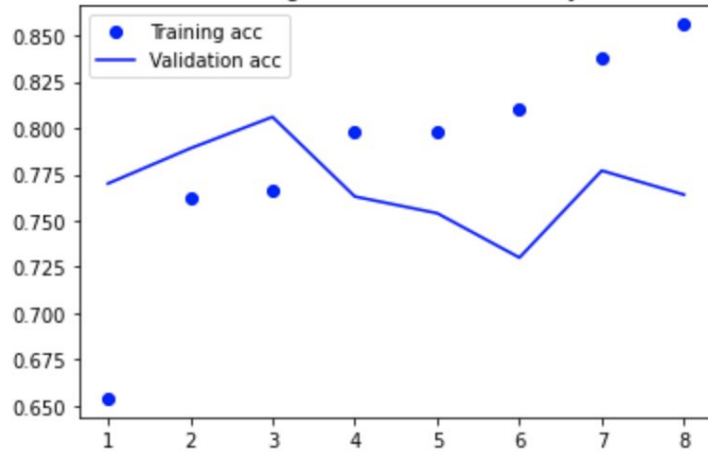




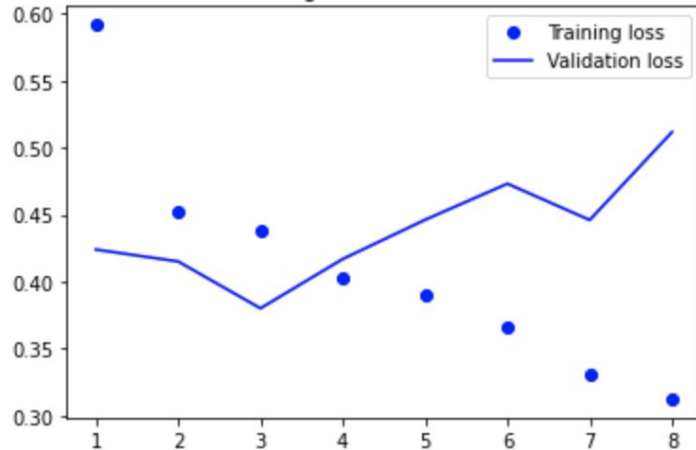


- Data set \_33
- $(1 \cdot (i - 1000))$ 
  - Multiplication factor: 1
  - Subtraction factor: 1000
- 4 convolution layers
- 8 epochs:
  - loss: 0.3257
  - acc: 0.8405
  - val\_loss: 0.5362
  - val\_acc: 0.7230

Training and validation accuracy

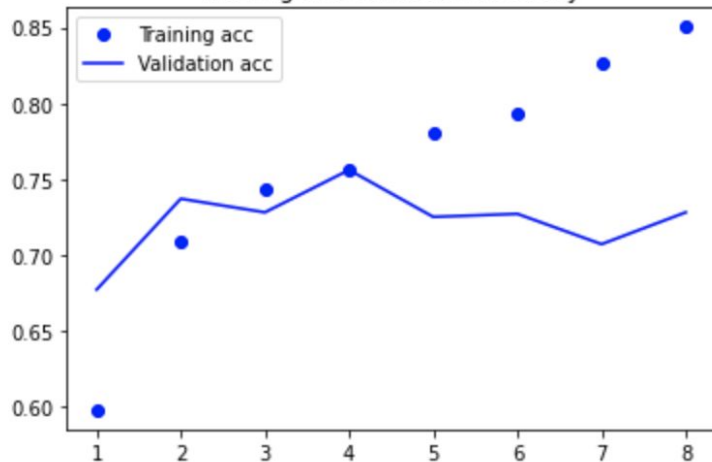


Training and validation loss

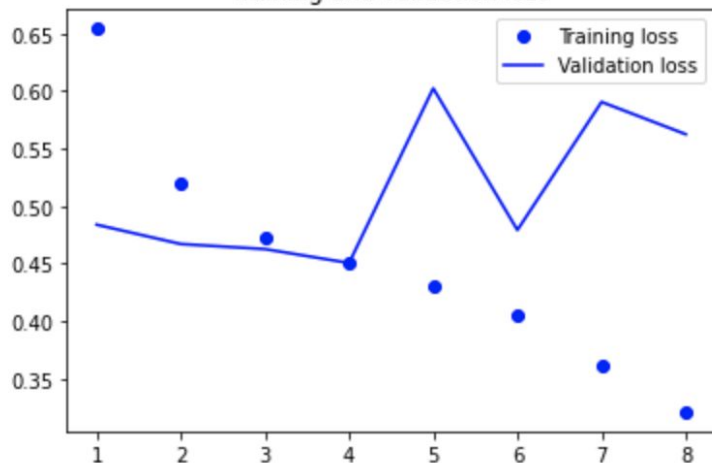


- Data set \_34
- $(1*(i-750))$ 
  - Multiplication factor: 1
  - Subtraction factor: 750
- 4 convolution layers
- 8 epochs:
  - loss: 0.3124
  - acc: 0.8560
  - val\_loss: 0.5116
  - val\_acc: 0.7640

Training and validation accuracy

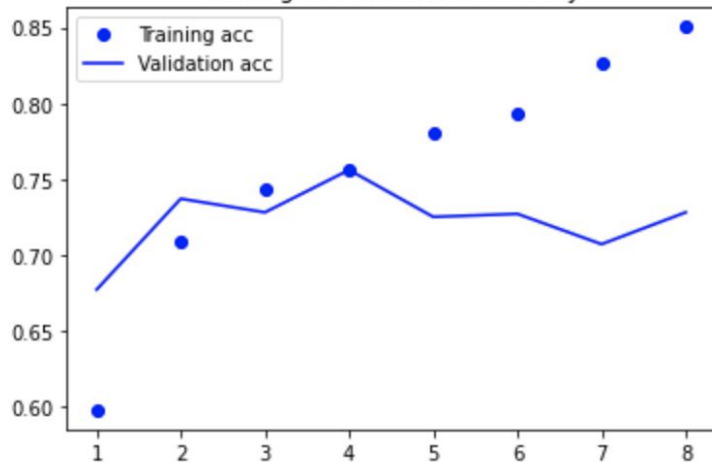


Training and validation loss

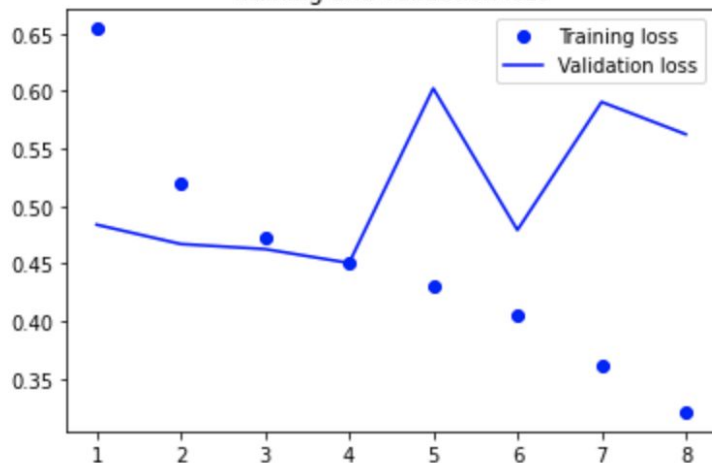


- Data set \_39
- $(0.5 * (i - 750))$ 
  - Multiplication factor: 0.5
  - Subtraction factor: 750
- 4 convolution layers
- 8 epochs:
  - loss: 0.3469
  - acc: 0.8410
  - val\_loss: 0.5038
  - val\_acc: 0.7850
- Patchsize: 0-125

Training and validation accuracy

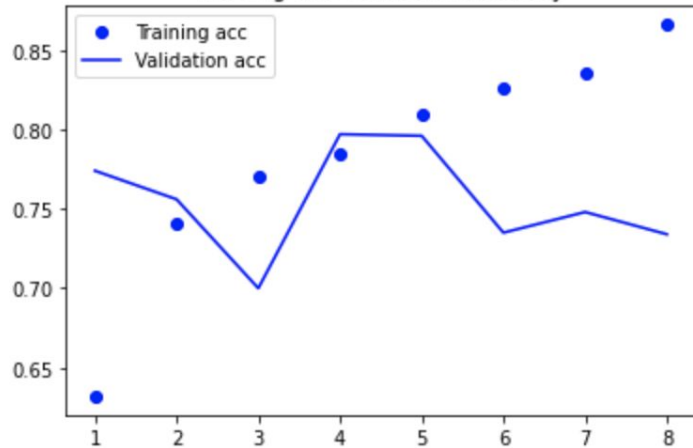


Training and validation loss

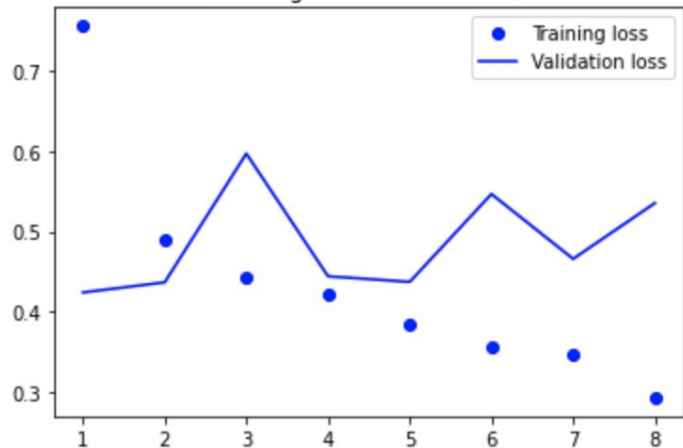


- Data set \_37
- $(0.1 * (i - 750))$ 
  - Multiplication factor: 0.1
  - Subtraction factor: 750
- 4 convolution layers
- 8 epochs:
  - loss: 0.3346
  - acc: 0.8515
  - val\_loss: 0.5291
  - val\_acc: 0.7250
- Size of patch: 0-25

Training and validation accuracy



Training and validation loss



- Data set \_40
- $(0.5 * (i - 500))$ 
  - Multiplication factor: 0.5
  - Subtraction factor: 500
- 4 convolution layers
- 8 epochs:
  - 0.2933 - acc: 0.8660 - val\_loss:
  - 0.5352 - val\_acc: 0.7340

