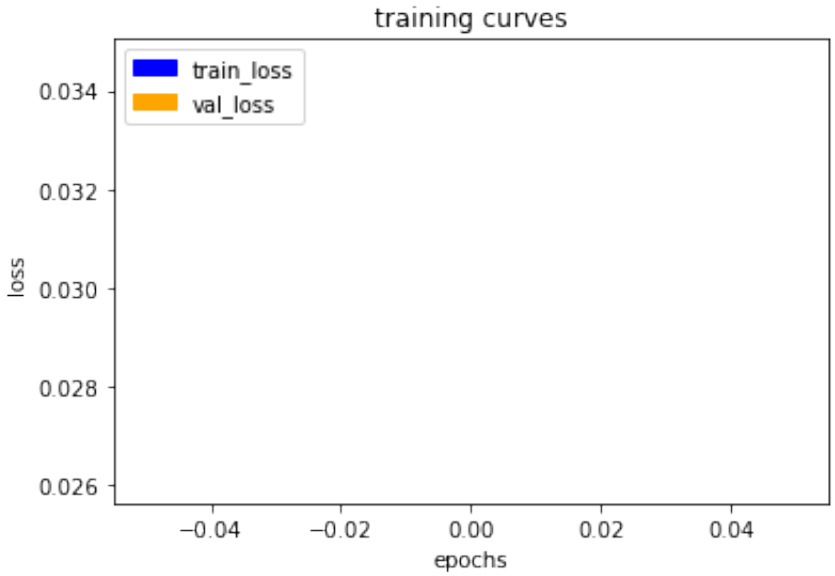
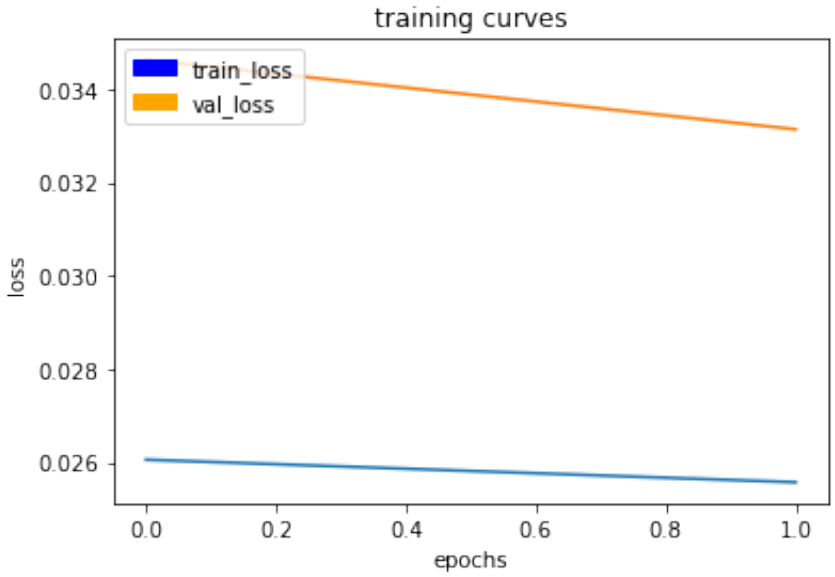
On AWS instance

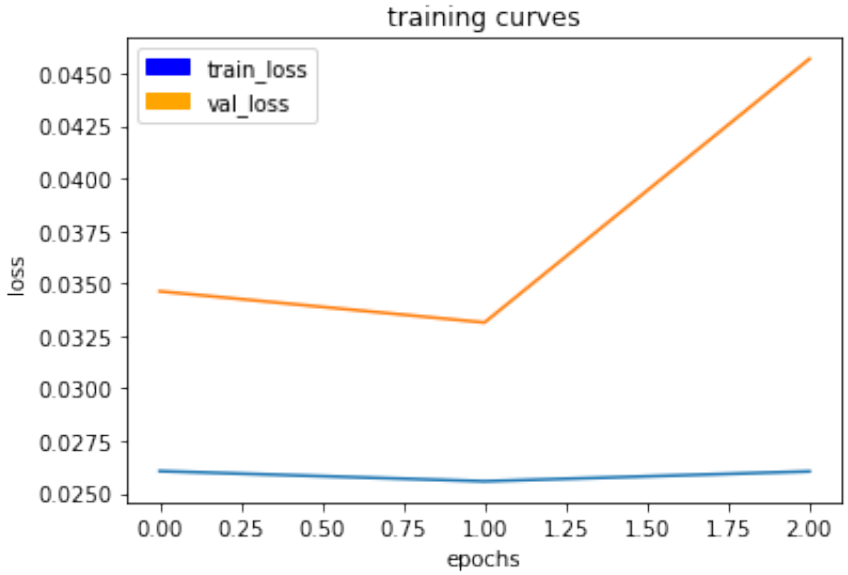
Epoch 1/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0260



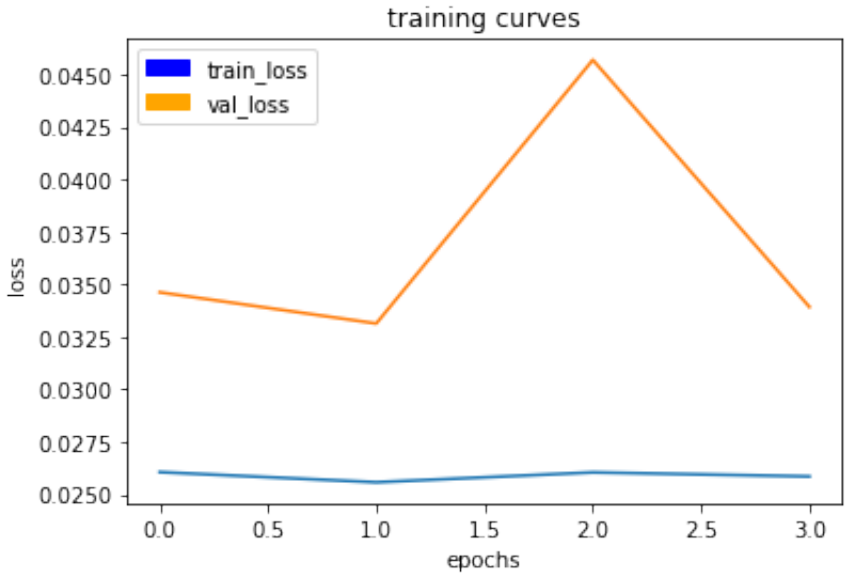
65/65 [==============================] - 188s - loss: 0.0260 - val_loss: 0.0346
Epoch 2/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0256



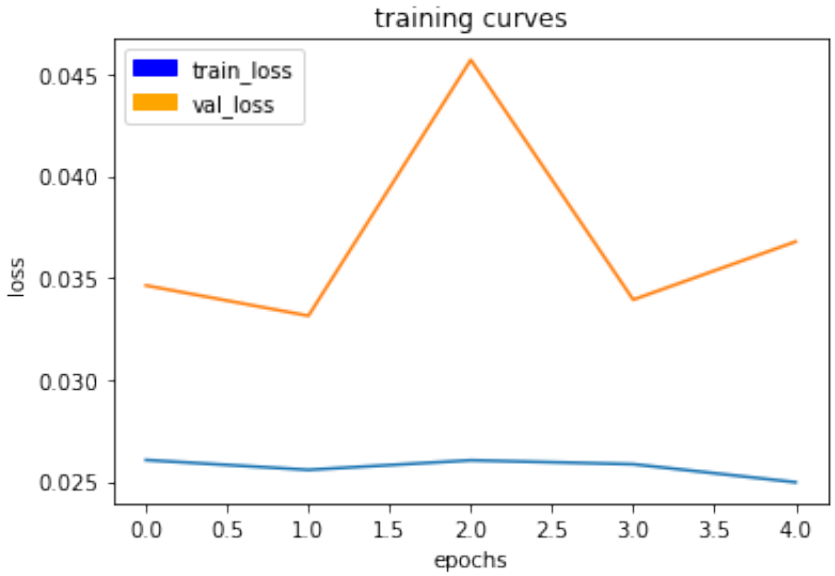
65/65 [==============================] - 186s - loss: 0.0256 - val_loss: 0.0331
Epoch 3/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0261



65/65 [==============================] - 186s - loss: 0.0260 - val_loss: 0.0457
Epoch 4/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0257

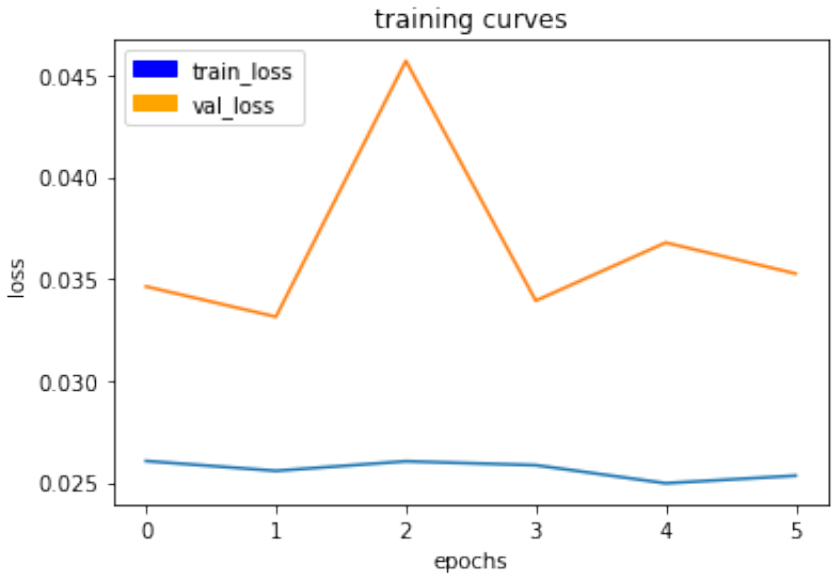


65/65 [==============================] - 187s - loss: 0.0259 - val_loss: 0.0339
Epoch 5/100
64/65 [============================>.] - ETA: 2s - loss: 0.0252

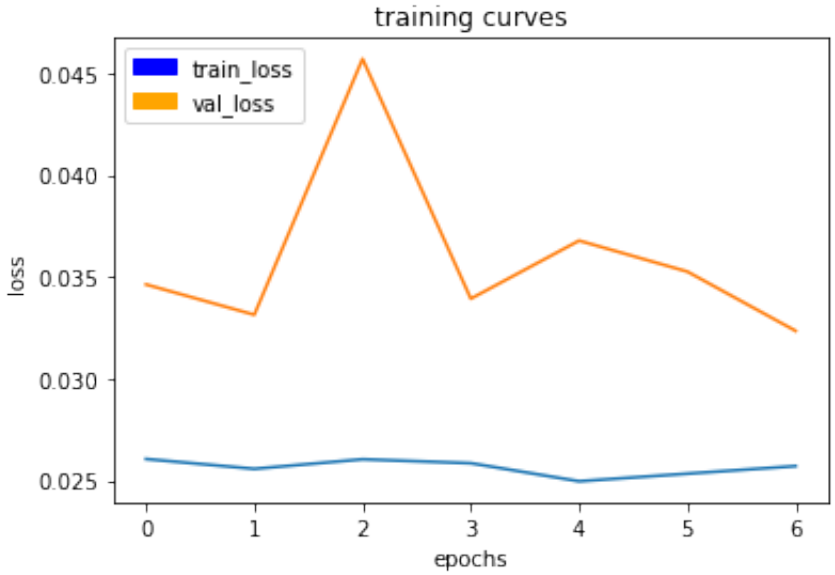


65/65 [==============================] - 185s - loss: 0.0251 - val_loss: 0.0368
Epoch 6/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0253

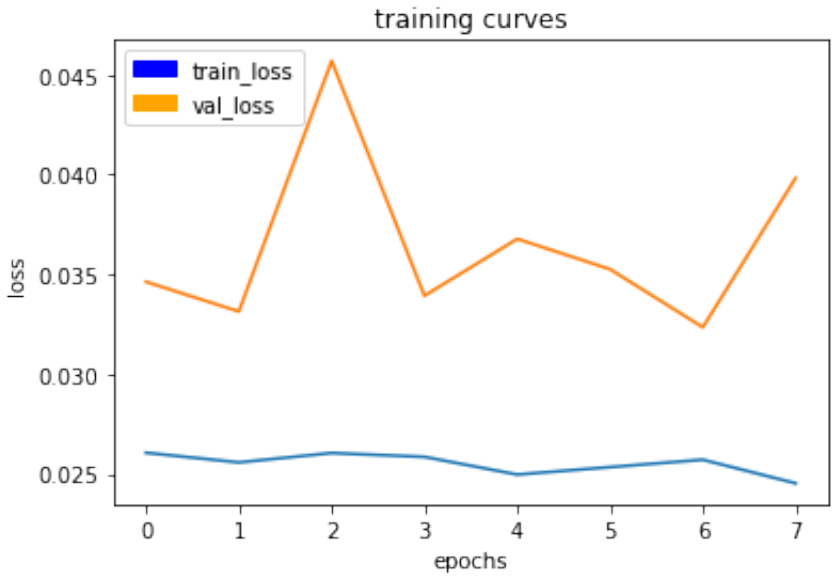


65/65 [==============================] - 187s - loss: 0.0253 - val_loss: 0.0353
Epoch 7/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0257

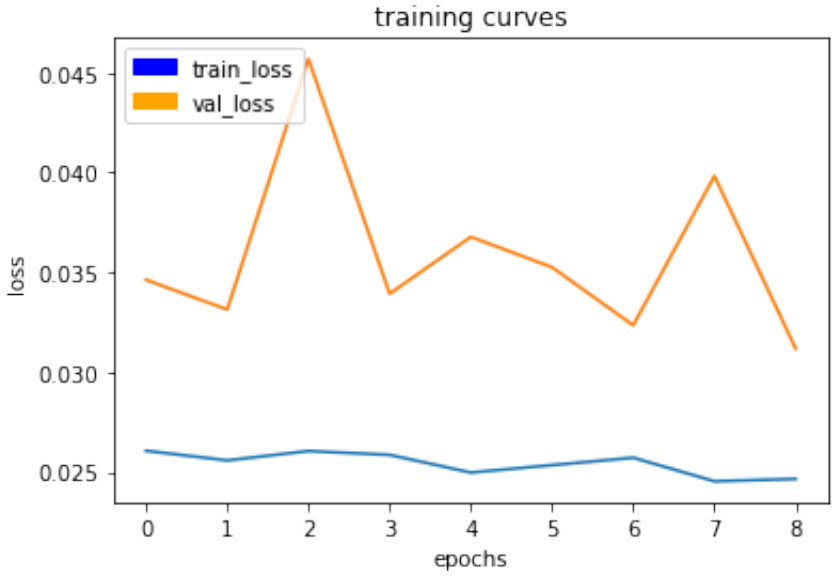


65/65 [==============================] - 187s - loss: 0.0257 - val_loss: 0.0323

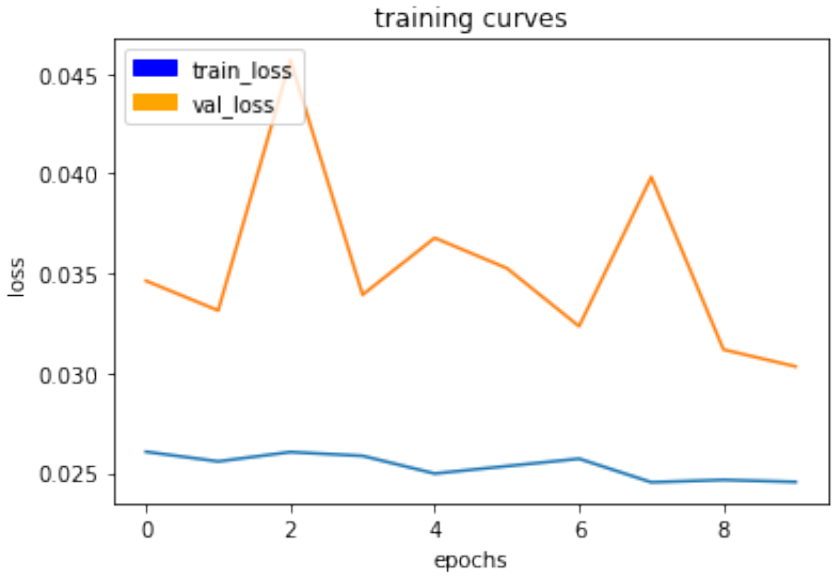
Epoch 8/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0242



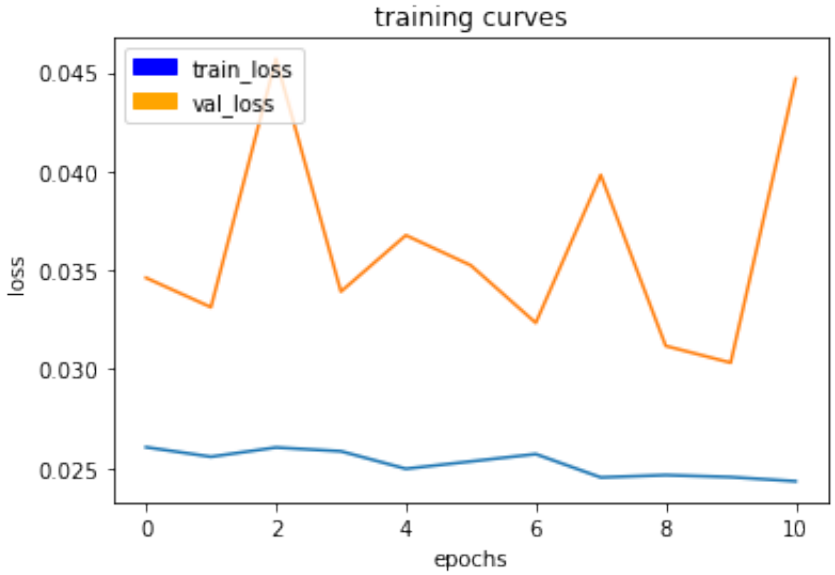
65/65 [==============================] - 187s - loss: 0.0245 - val_loss: 0.0398
Epoch 9/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0247



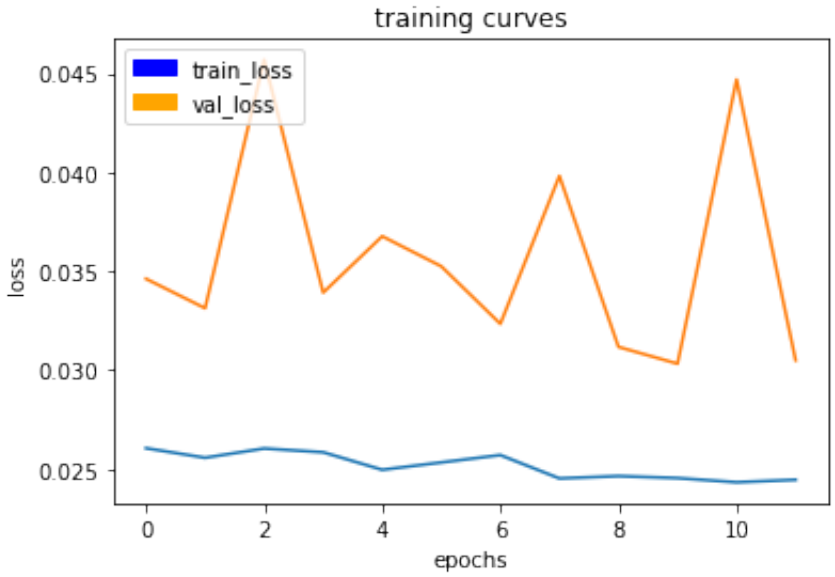
65/65 [==============================] - 187s - loss: 0.0246 - val_loss: 0.0312
Epoch 10/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0247



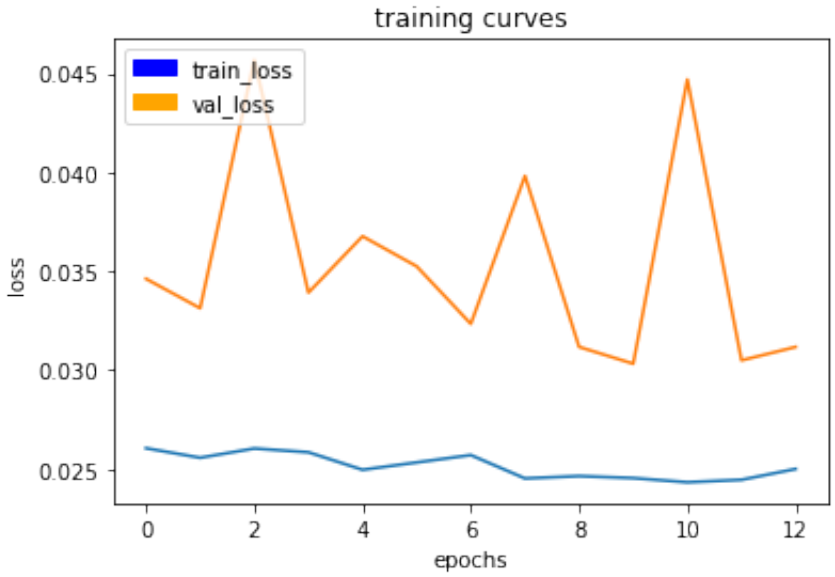
65/65 [==============================] - 187s - loss: 0.0247 - val_loss: 0.0303
Epoch 11/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0243



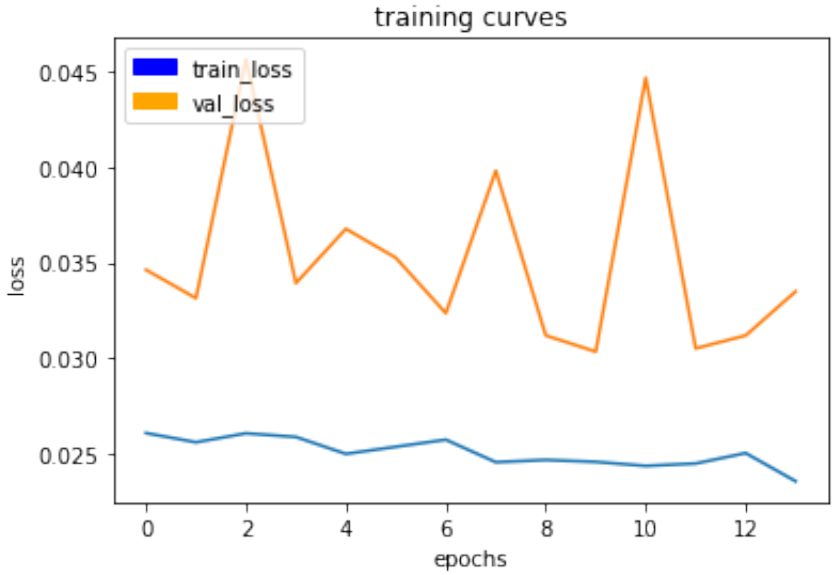
65/65 [==============================] - 187s - loss: 0.0244 - val_loss: 0.0447
Epoch 12/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0245



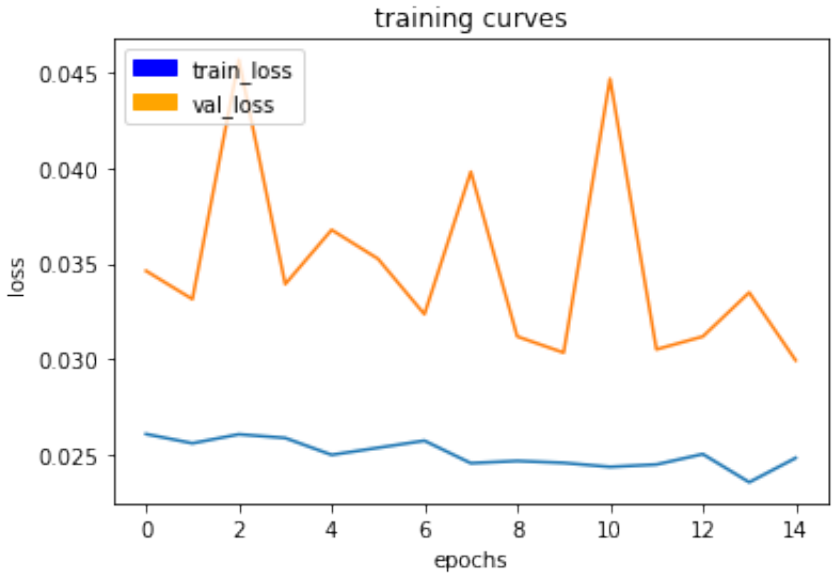
65/65 [==============================] - 187s - loss: 0.0244 - val_loss: 0.0305
Epoch 13/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0250



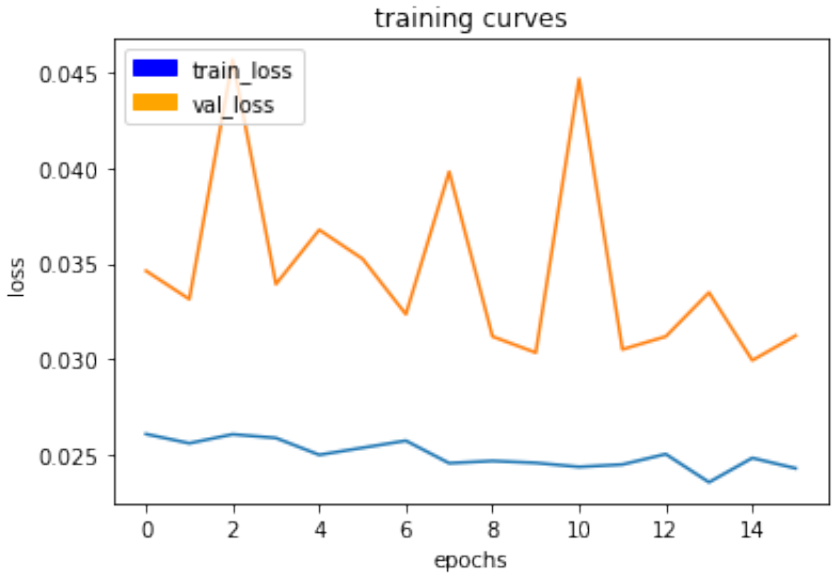
65/65 [==============================] - 187s - loss: 0.0250 - val_loss: 0.0312
Epoch 14/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0236



65/65 [==============================] - 187s - loss: 0.0235 - val_loss: 0.0335
Epoch 15/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0249

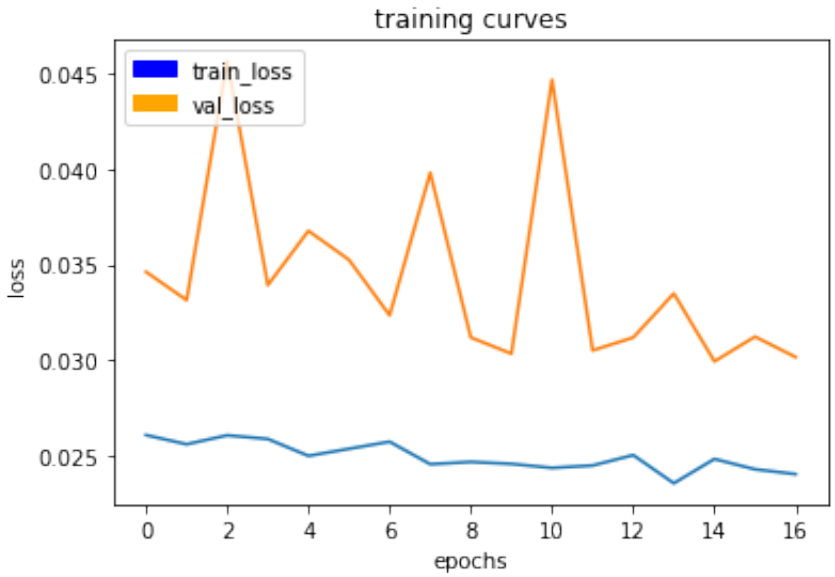


65/65 [==============================] - 186s - loss: 0.0248 - val_loss: 0.0299
Epoch 16/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0242

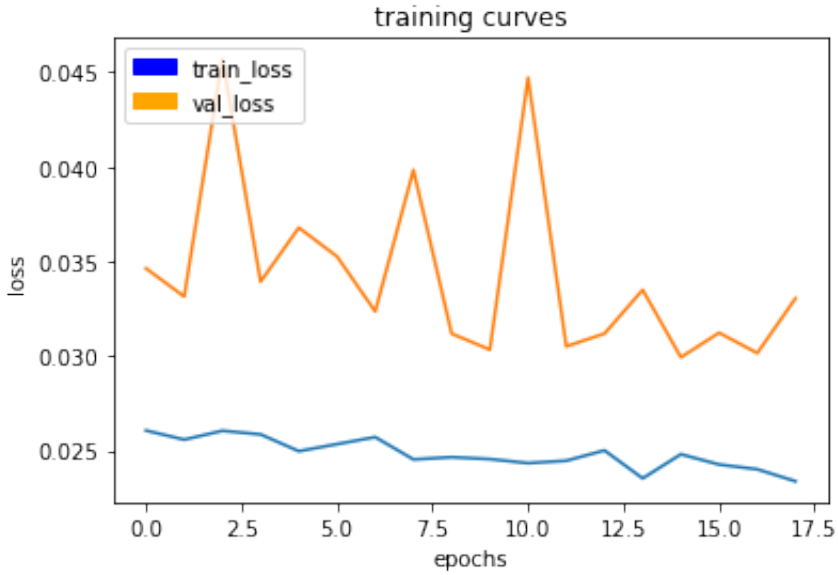


65/65 [==============================] - 186s - loss: 0.0242 - val_loss: 0.0312
Epoch 17/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0239

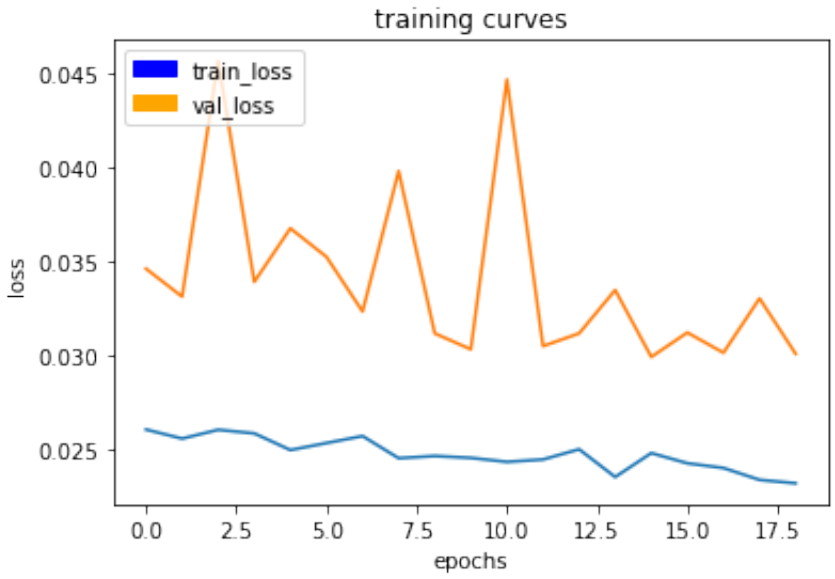


65/65 [==============================] - 187s - loss: 0.0240 - val_loss: 0.0301
Epoch 18/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0234

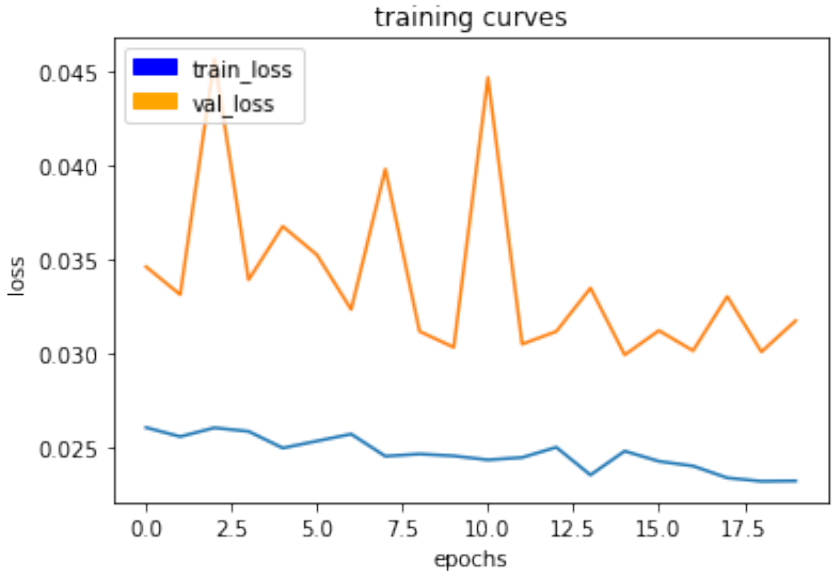


65/65 [==============================] - 187s - loss: 0.0234 - val_loss: 0.0330

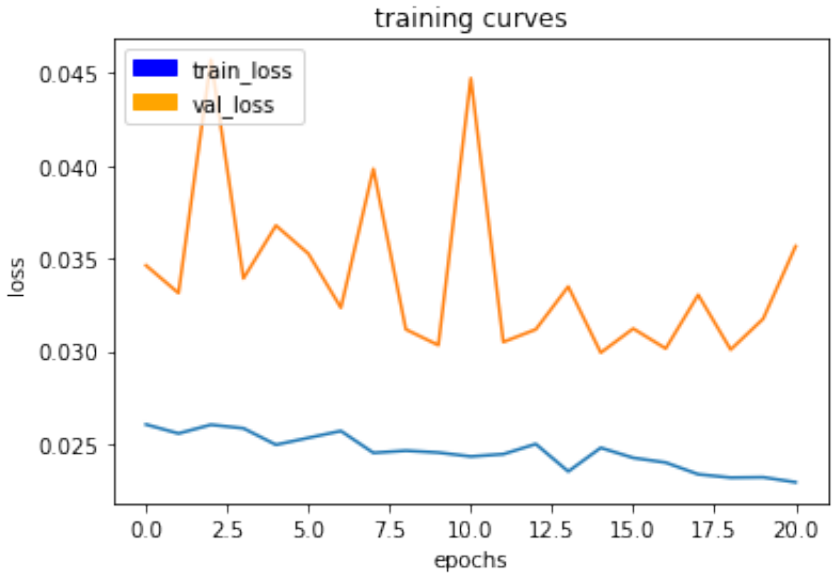
Epoch 19/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0232



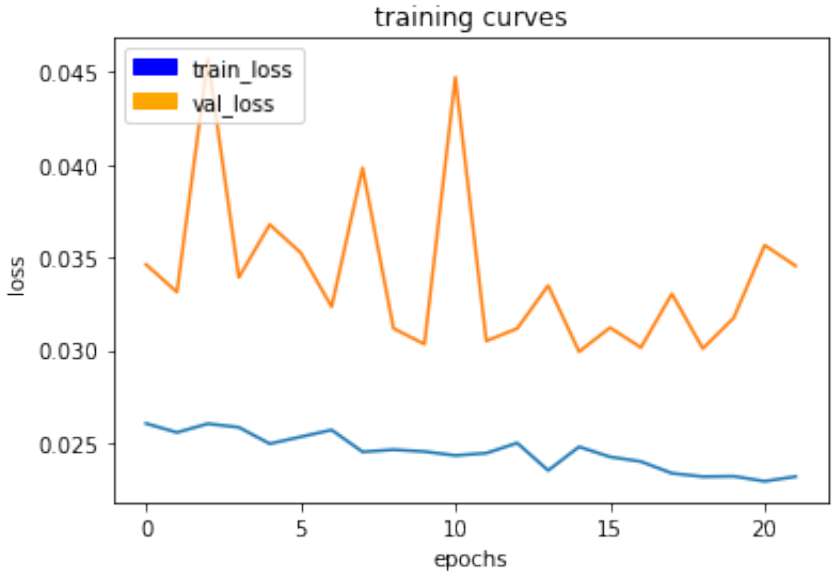
65/65 [==============================] - 187s - loss: 0.0232 - val_loss: 0.0301
Epoch 20/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0232



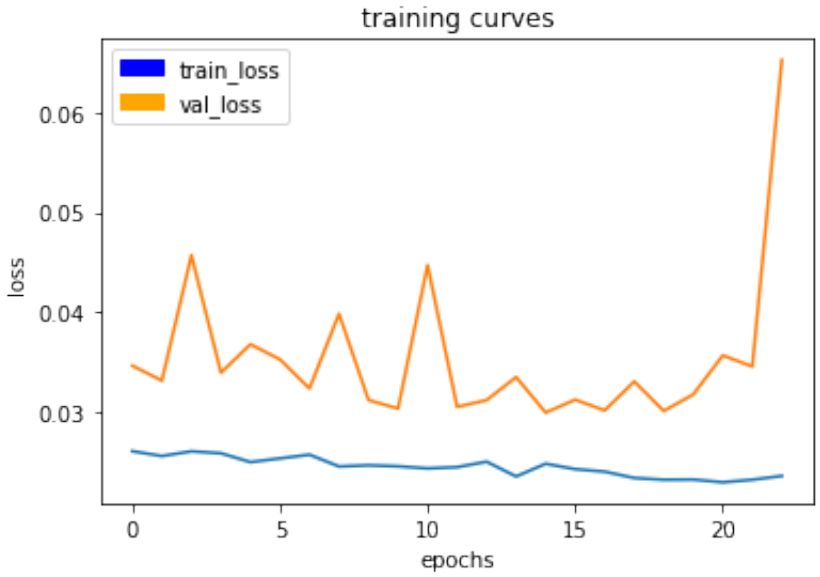
65/65 [==============================] - 186s - loss: 0.0233 - val_loss: 0.0317
Epoch 21/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0229



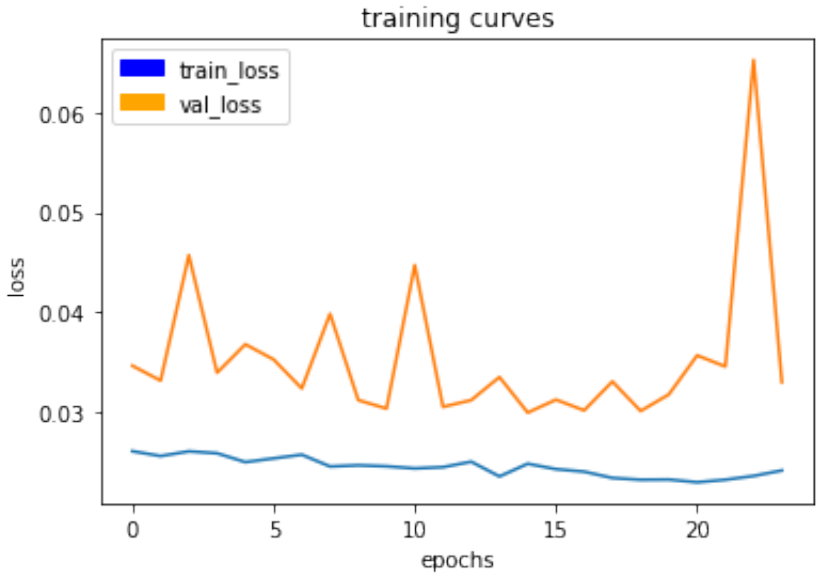
65/65 [==============================] - 186s - loss: 0.0229 - val_loss: 0.0357
Epoch 22/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0231



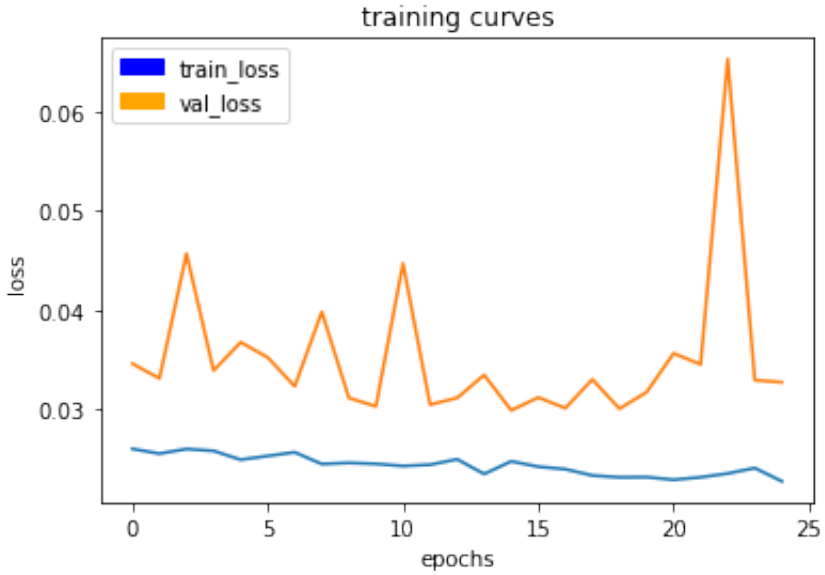
65/65 [==============================] - 188s - loss: 0.0232 - val_loss: 0.0345
Epoch 23/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0236



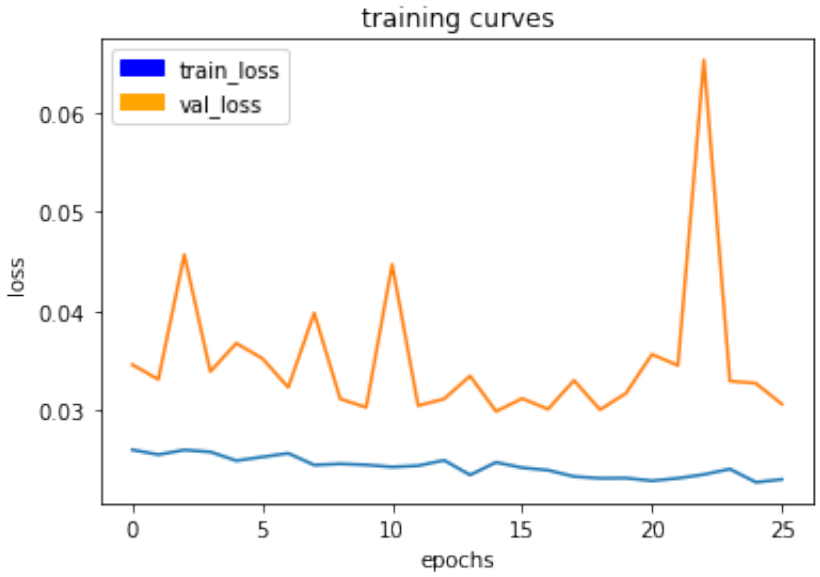
65/65 [==============================] - 187s - loss: 0.0236 - val_loss: 0.0653
Epoch 24/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0240



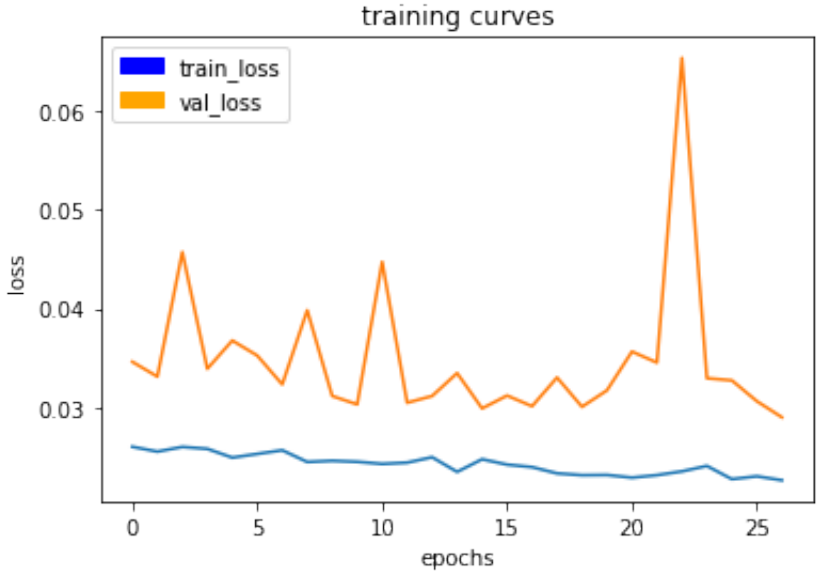
65/65 [==============================] - 187s - loss: 0.0241 - val_loss: 0.0330
Epoch 25/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0225



65/65 [==============================] - 187s - loss: 0.0227 - val_loss: 0.0328
Epoch 26/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0231

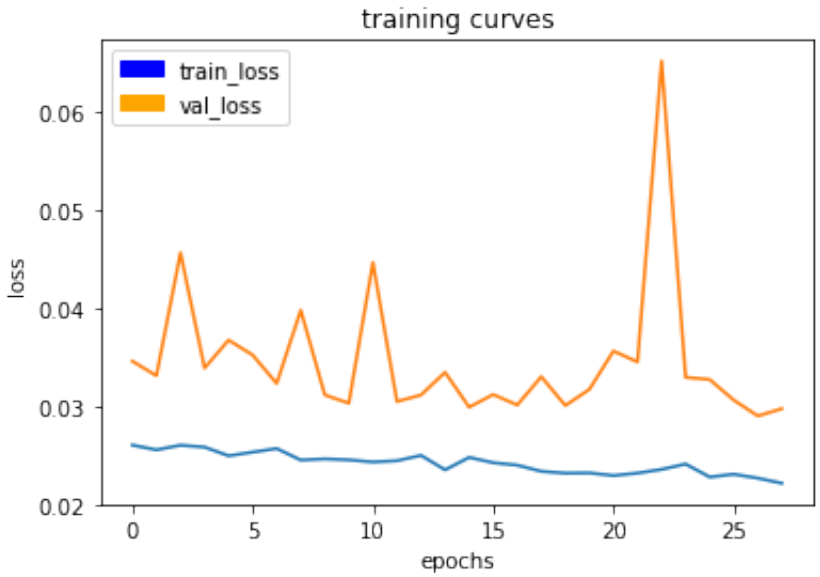


65/65 [==============================] - 186s - loss: 0.0231 - val_loss: 0.0307
Epoch 27/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0227

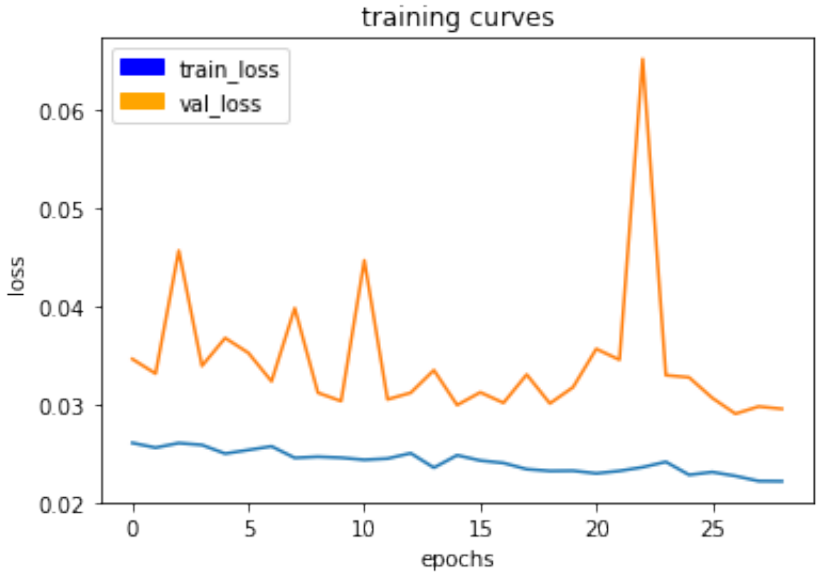


65/65 [==============================] - 187s - loss: 0.0227 - val_loss: 0.0290
Epoch 28/100

64/65 [============================>.] - ETA: 2s - loss: 0.0220

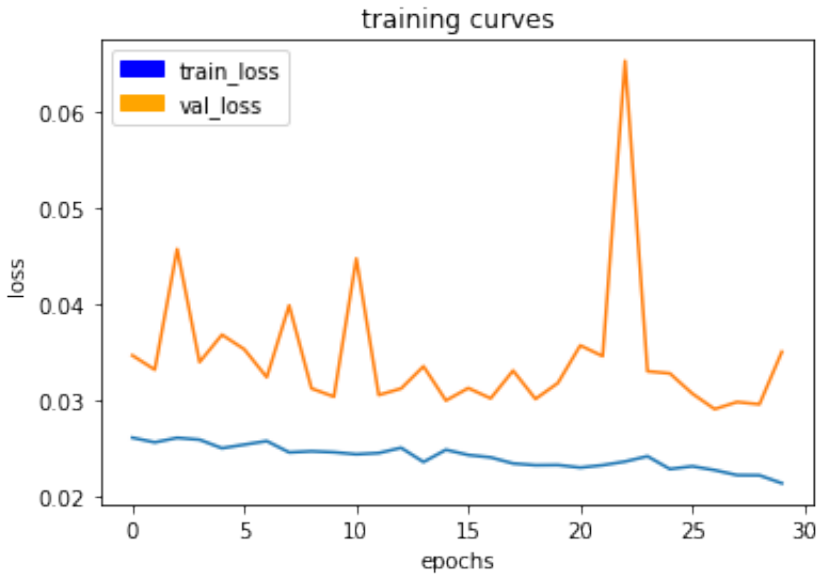


65/65 [==============================] - 186s - loss: 0.0222 - val_loss: 0.0298
Epoch 29/100
64/65 [============================>.] - ETA: 2s - loss: 0.0222

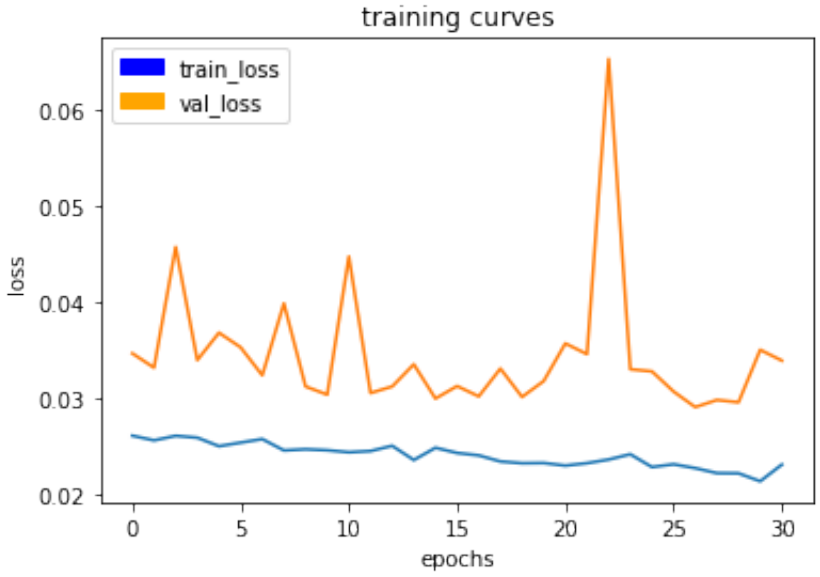


65/65 [==============================] - 187s - loss: 0.0221 - val_loss: 0.0295

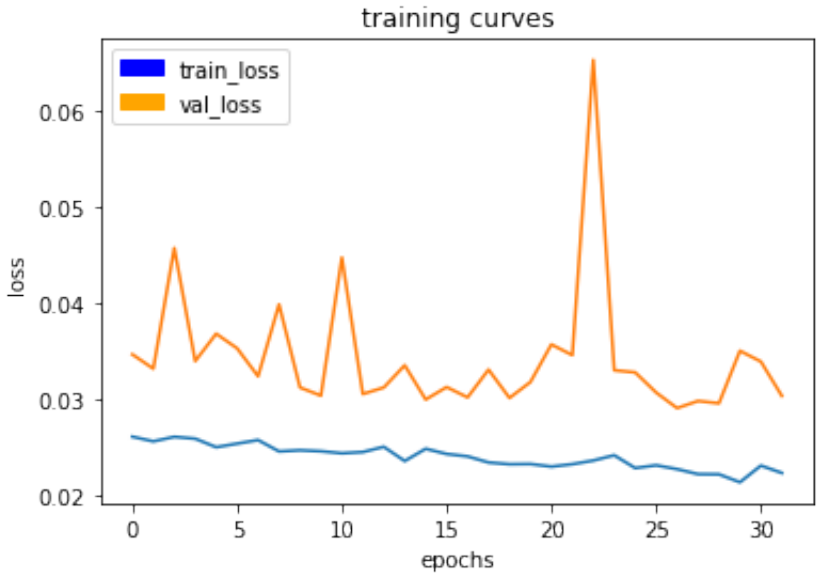
Epoch 30/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0214



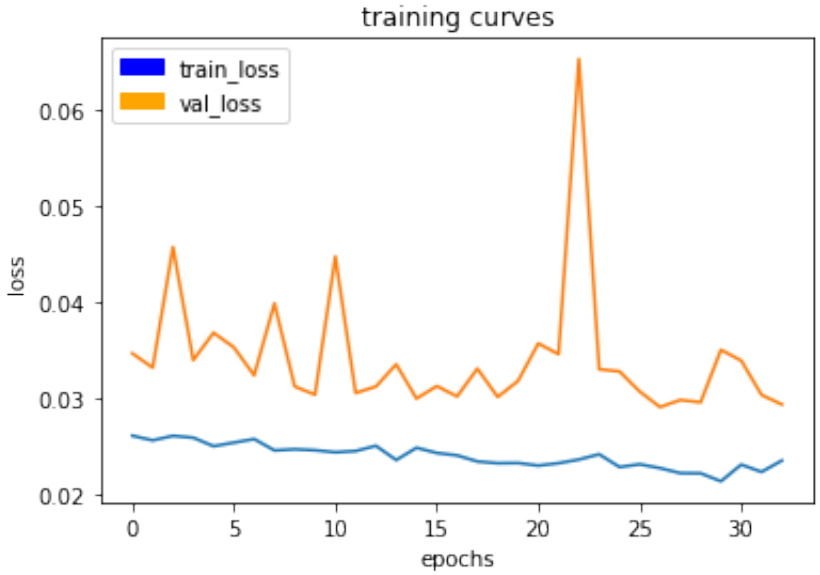
65/65 [==============================] - 186s - loss: 0.0214 - val_loss: 0.0350
Epoch 31/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0230



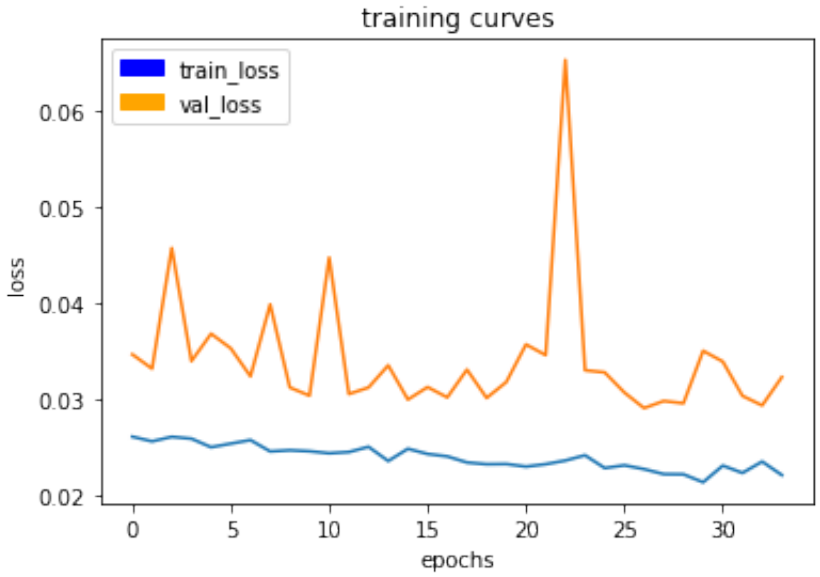
65/65 [==============================] - 186s - loss: 0.0230 - val_loss: 0.0339
Epoch 32/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0223



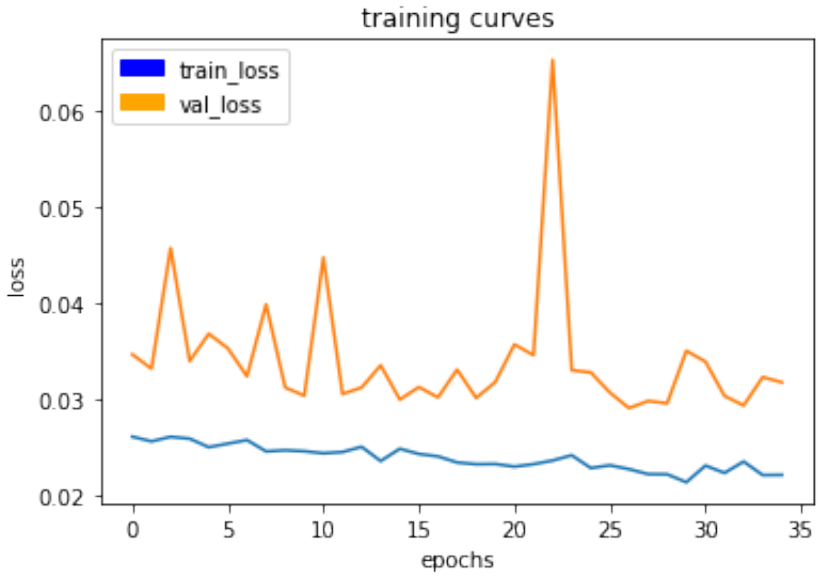
65/65 [==============================] - 187s - loss: 0.0223 - val_loss: 0.0303
Epoch 33/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0235



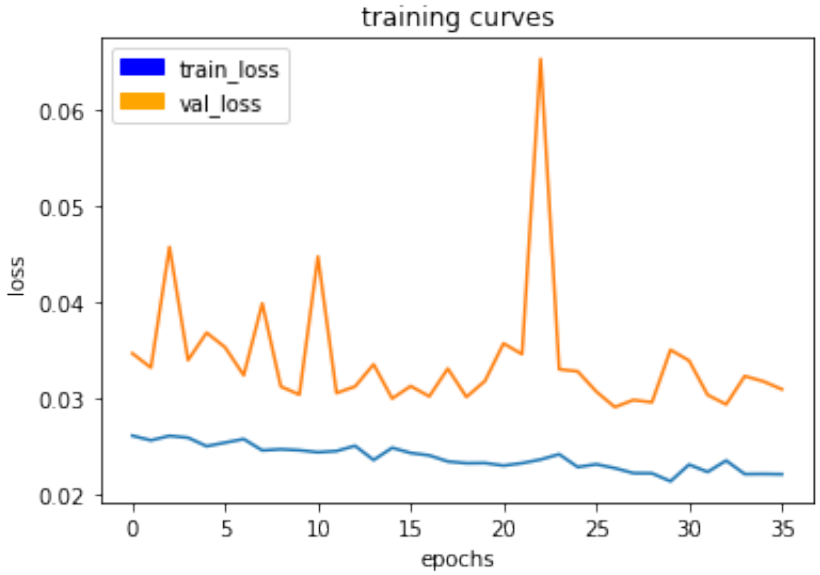
65/65 [==============================] - 186s - loss: 0.0234 - val_loss: 0.0293
Epoch 34/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0221



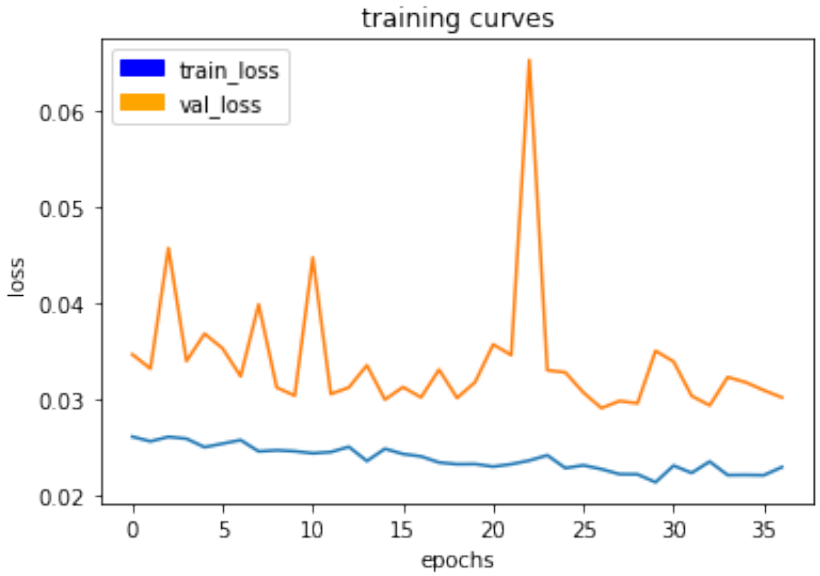
65/65 [==============================] - 187s - loss: 0.0220 - val_loss: 0.0323
Epoch 35/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0221



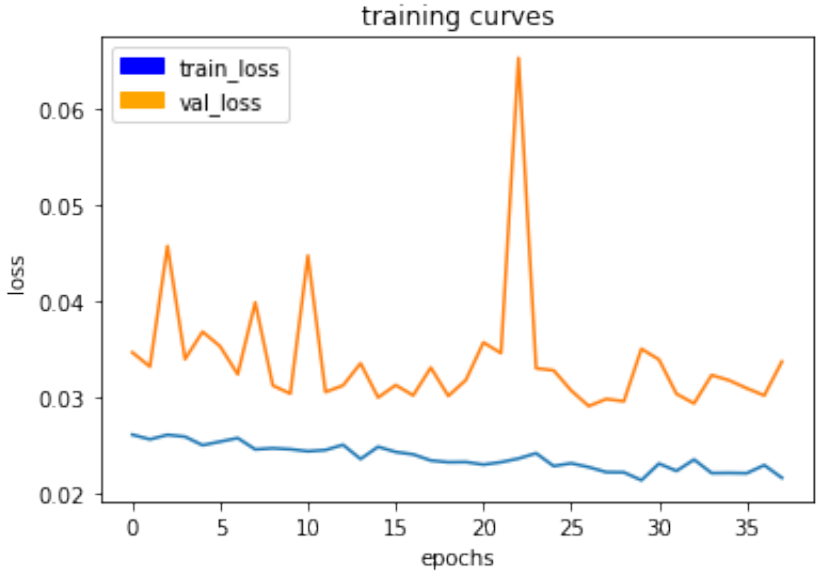
65/65 [==============================] - 187s - loss: 0.0221 - val_loss: 0.0317
Epoch 36/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0220



65/65 [==============================] - 186s - loss: 0.0220 - val_loss: 0.0309
Epoch 37/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0229

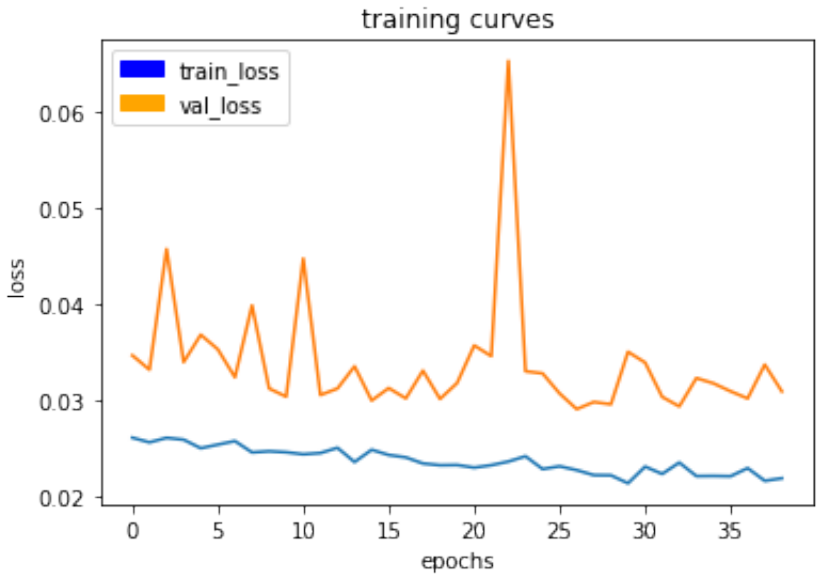


65/65 [==============================] - 186s - loss: 0.0229 - val_loss: 0.0301
Epoch 38/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0215

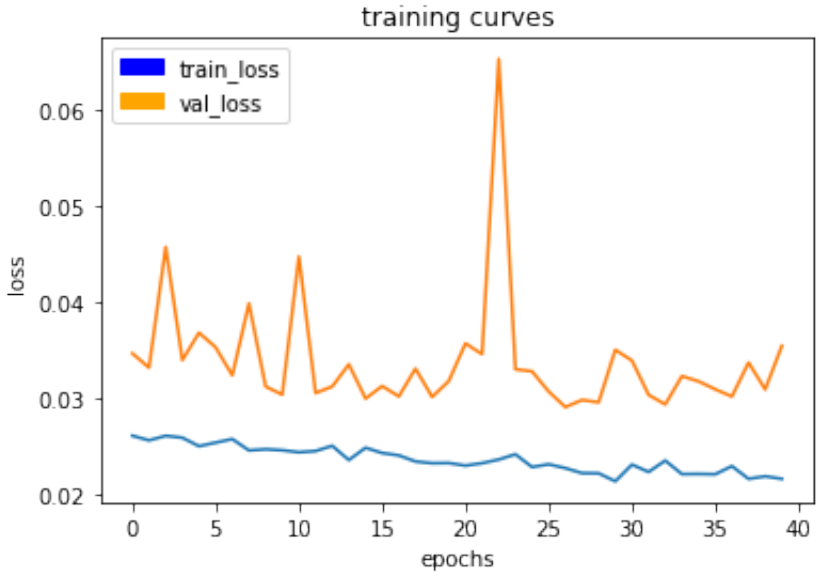


65/65 [==============================] - 186s - loss: 0.0216 - val_loss: 0.0337
Epoch 39/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0219

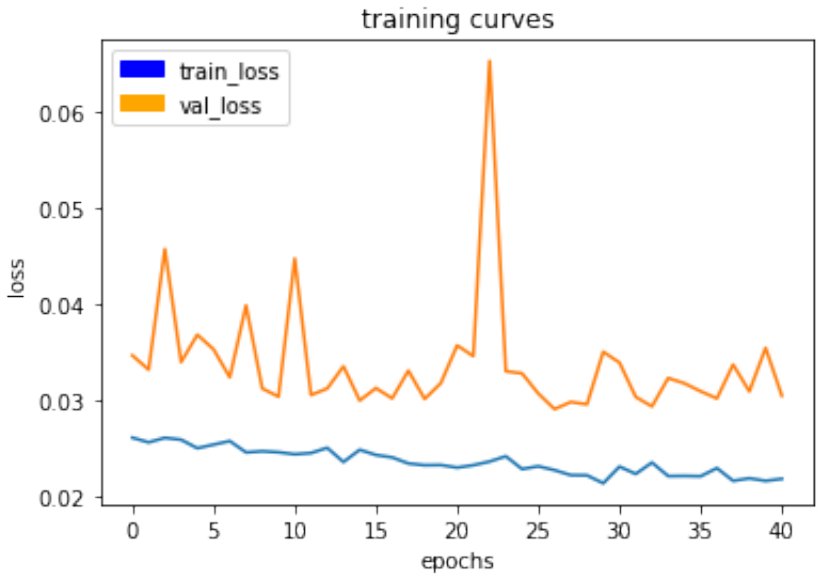


65/65 [==============================] - 187s - loss: 0.0218 - val_loss: 0.0309
Epoch 40/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0216

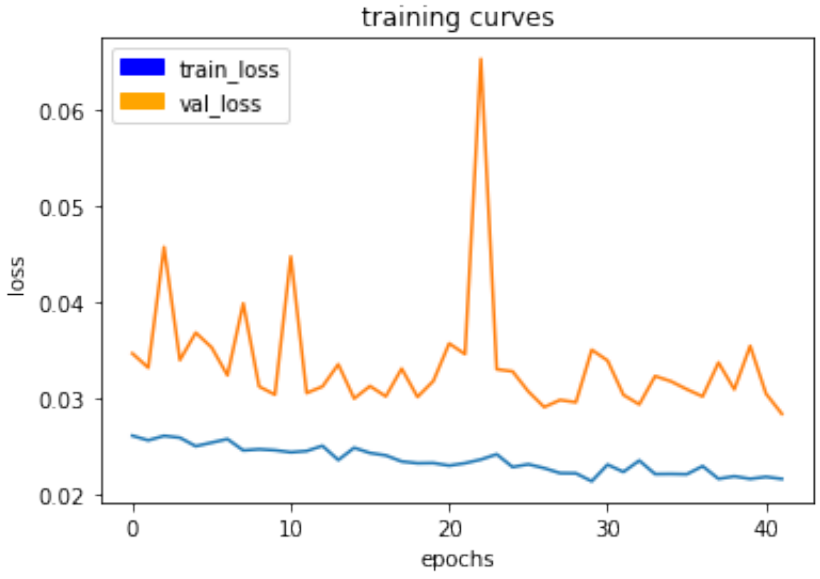


65/65 [==============================] - 186s - loss: 0.0216 - val_loss: 0.0354

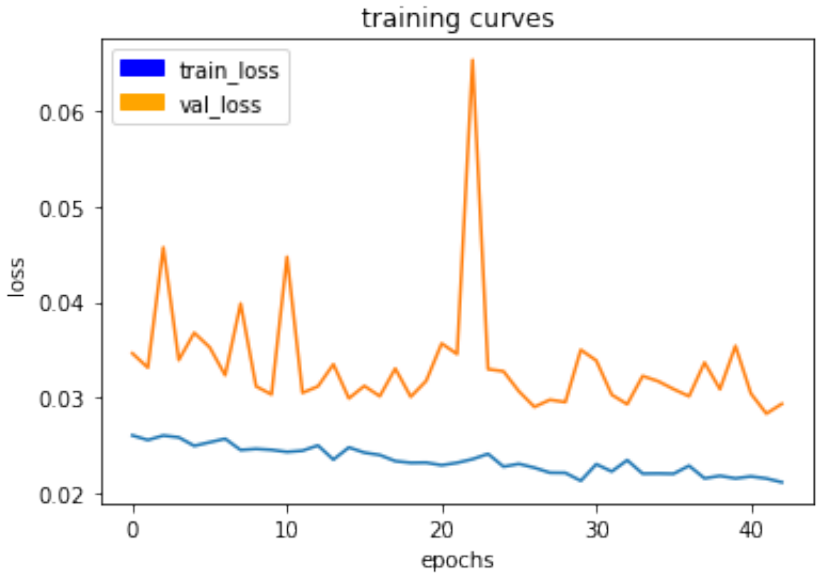
Epoch 41/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0218



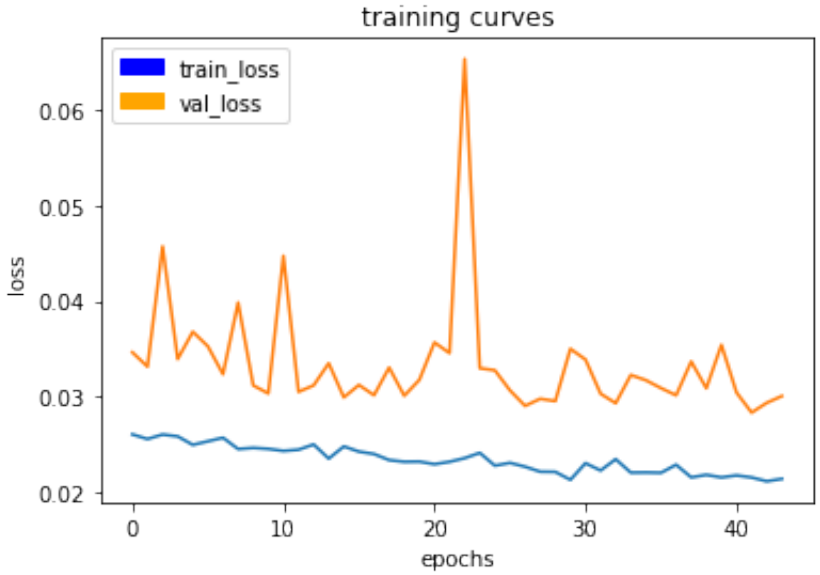
65/65 [==============================] - 187s - loss: 0.0217 - val_loss: 0.0304
Epoch 42/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0216



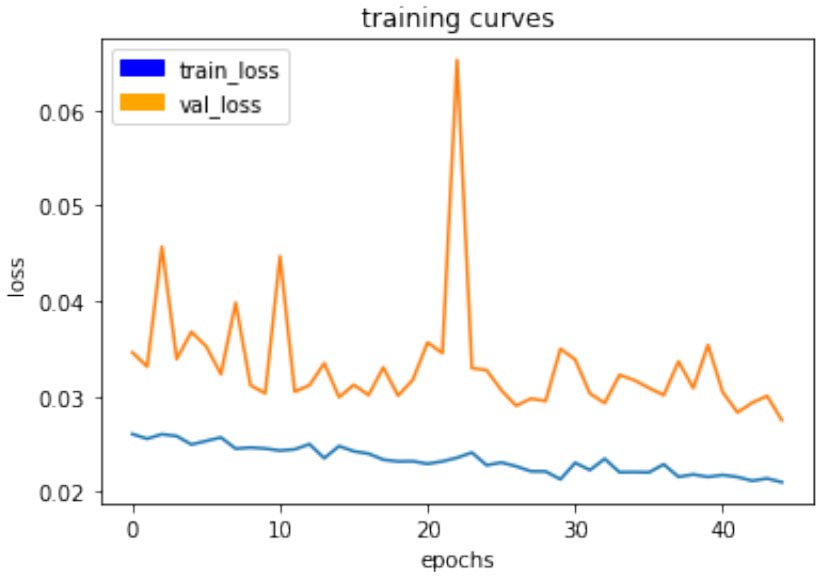
65/65 [==============================] - 187s - loss: 0.0215 - val_loss: 0.0283
Epoch 43/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0212



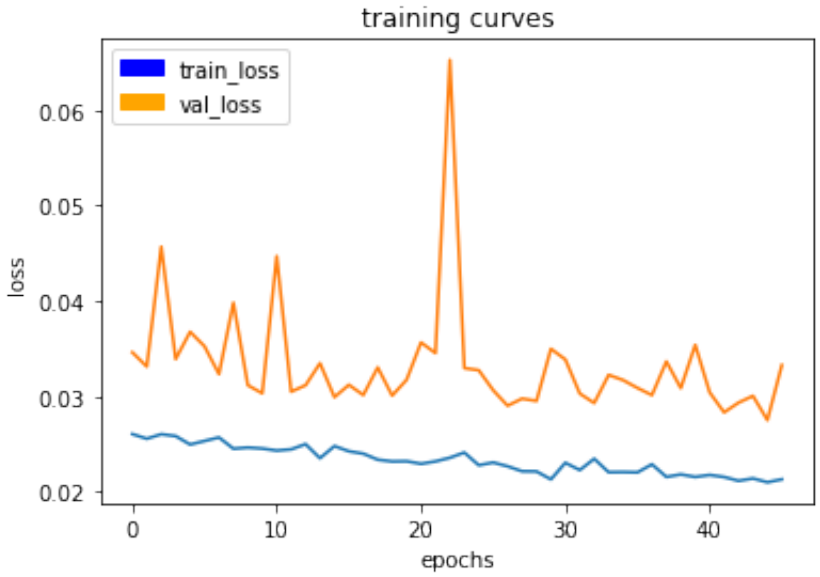
65/65 [==============================] - 186s - loss: 0.0211 - val_loss: 0.0294
Epoch 44/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0214



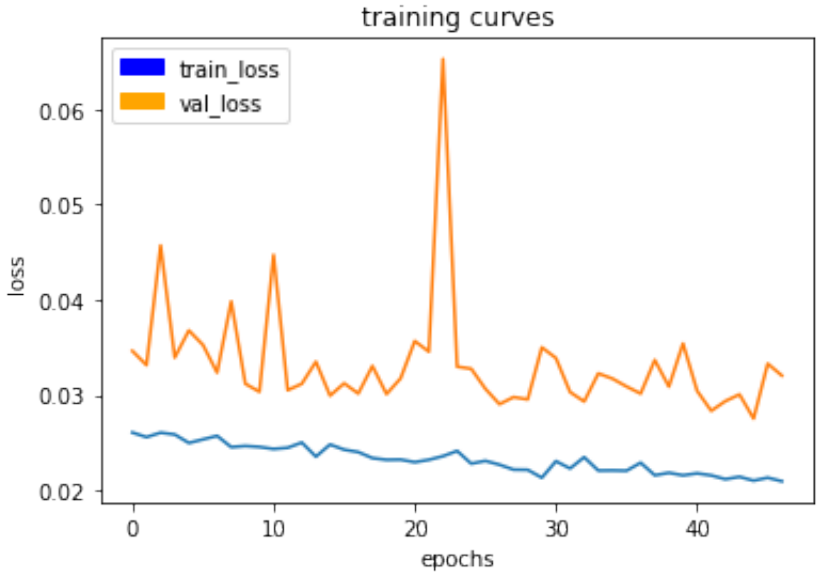
65/65 [==============================] - 187s - loss: 0.0214 - val_loss: 0.0301
Epoch 45/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0210



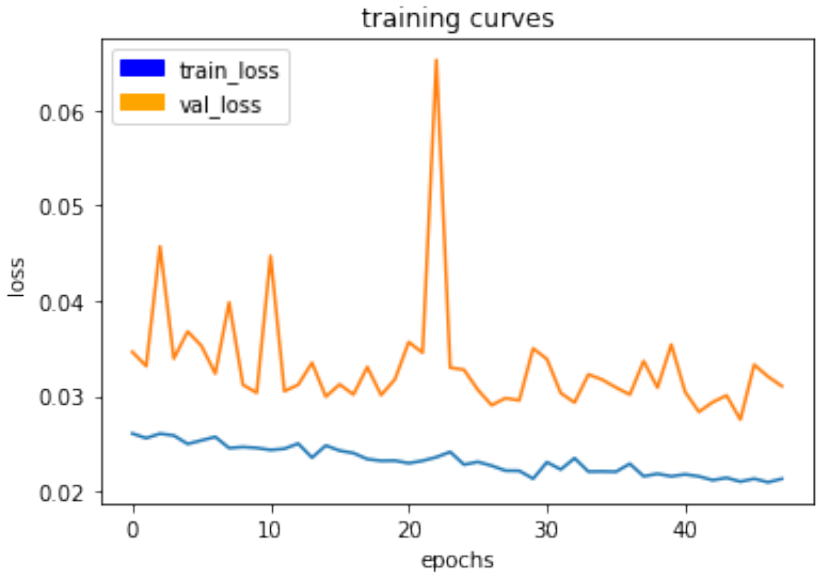
65/65 [==============================] - 186s - loss: 0.0210 - val_loss: 0.0275
Epoch 46/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0211



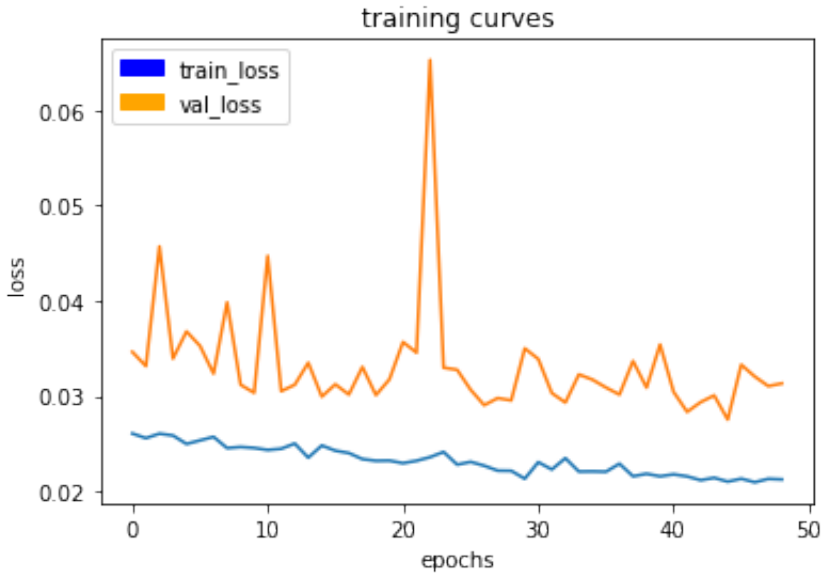
65/65 [==============================] - 187s - loss: 0.0213 - val_loss: 0.0333
Epoch 47/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0210



65/65 [==============================] - 187s - loss: 0.0210 - val_loss: 0.0320
Epoch 48/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0210

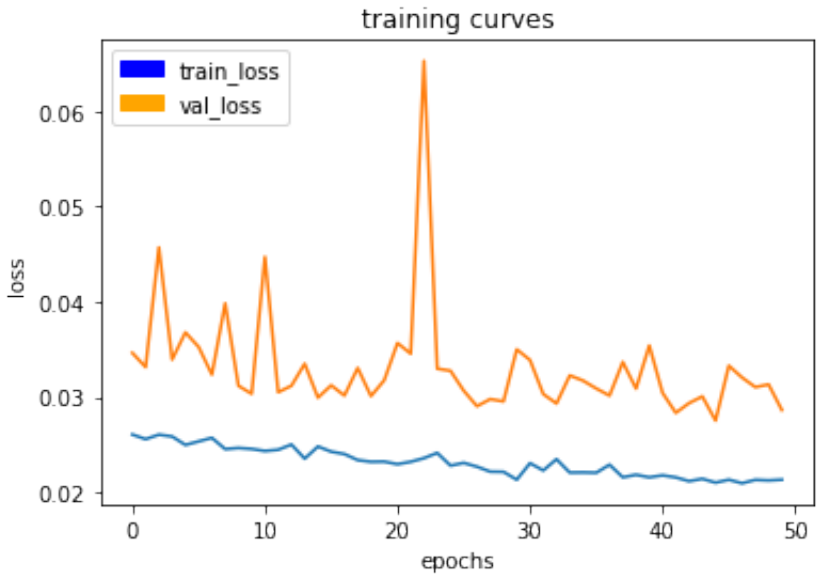


65/65 [==============================] - 186s - loss: 0.0213 - val_loss: 0.0310
Epoch 49/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0211

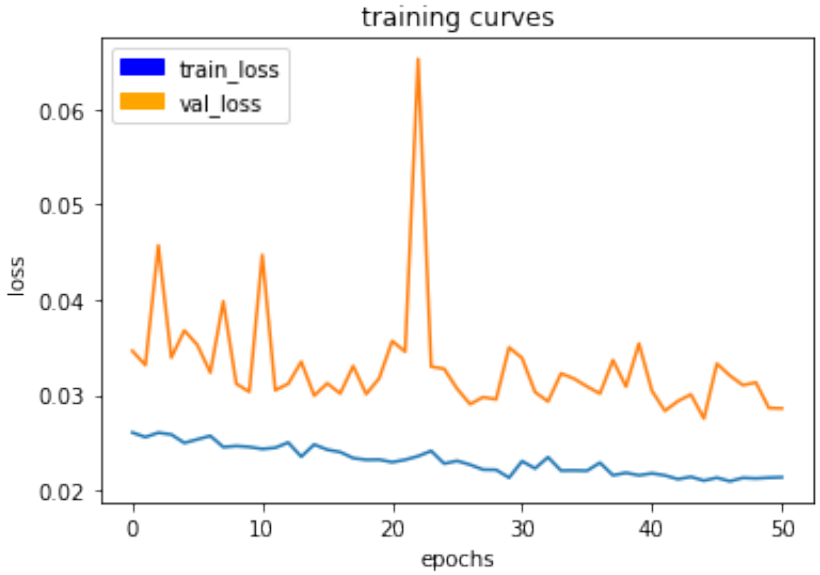


65/65 [==============================] - 187s - loss: 0.0213 - val_loss: 0.0313
Epoch 50/100

64/65 [============================>.] - ETA: 2s - loss: 0.0213

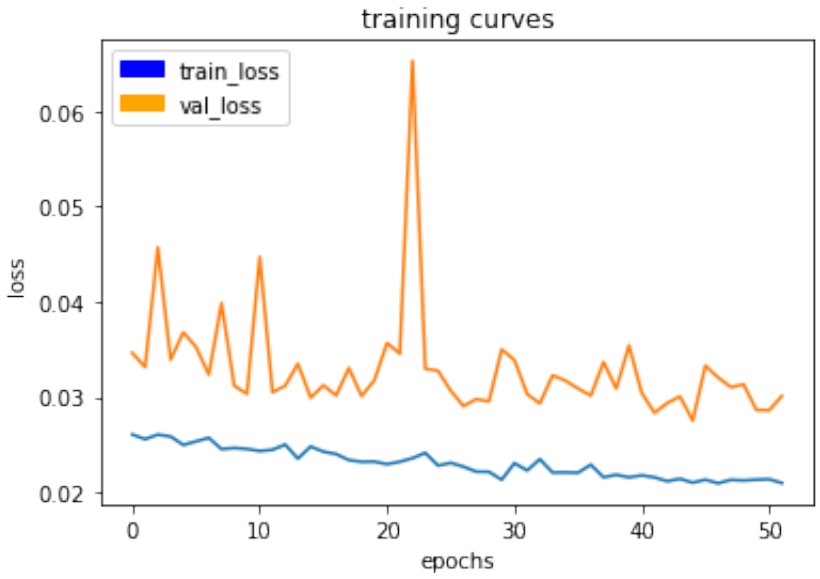


65/65 [==============================] - 187s - loss: 0.0213 - val_loss: 0.0286
Epoch 51/100
64/65 [============================>.] - ETA: 2s - loss: 0.0214

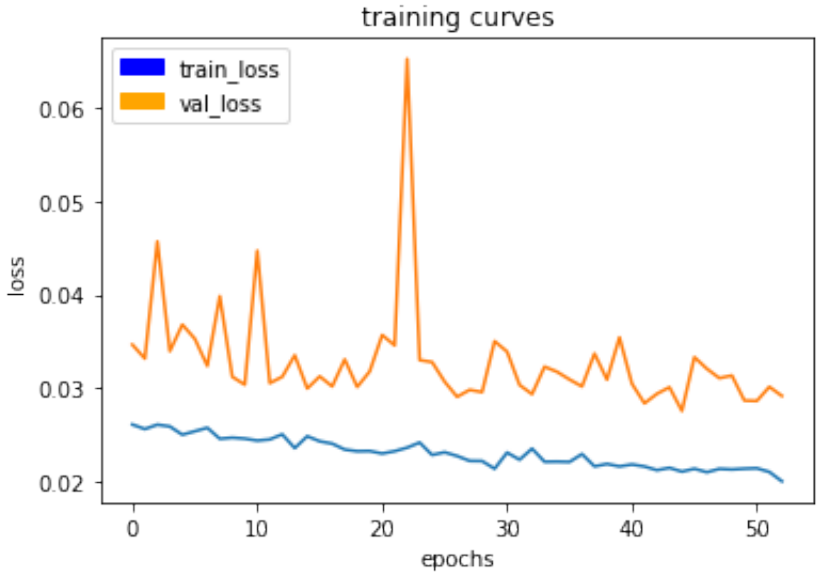


65/65 [==============================] - 187s - loss: 0.0213 - val_loss: 0.0286

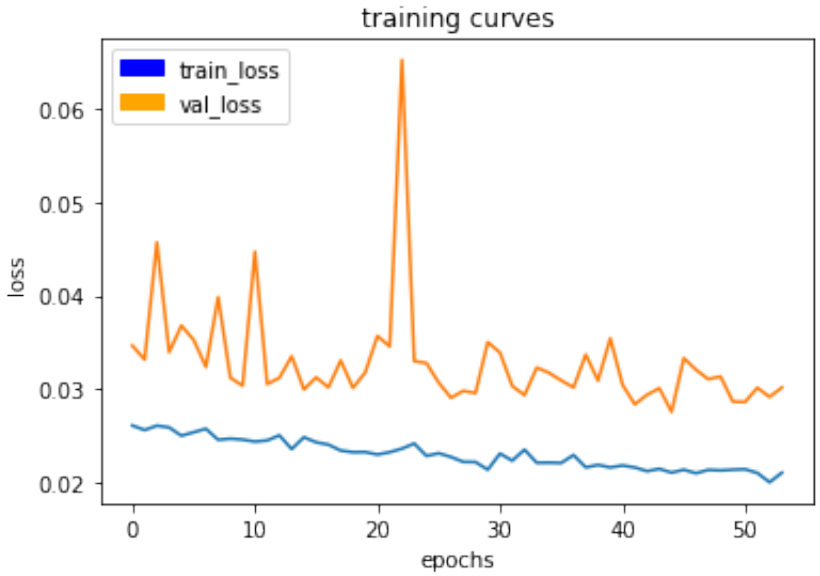
Epoch 52/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0208



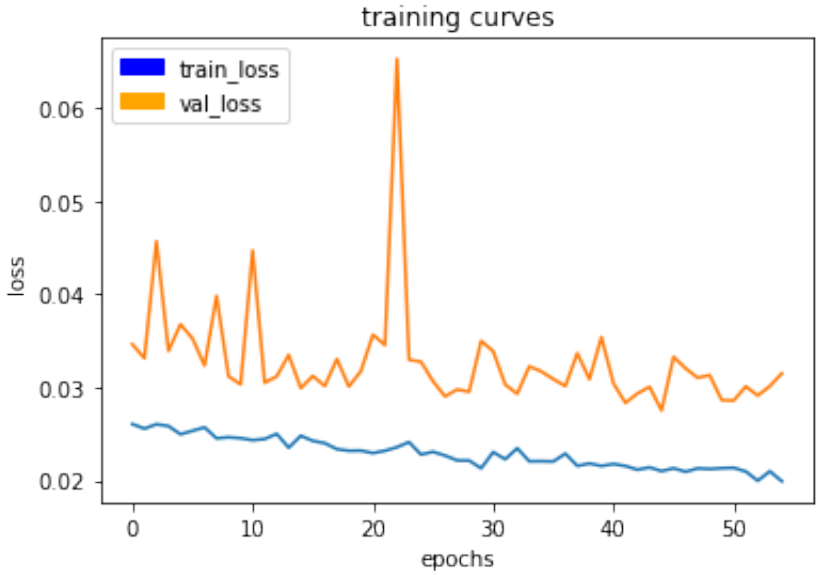
65/65 [==============================] - 187s - loss: 0.0209 - val_loss: 0.0301
Epoch 53/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0200



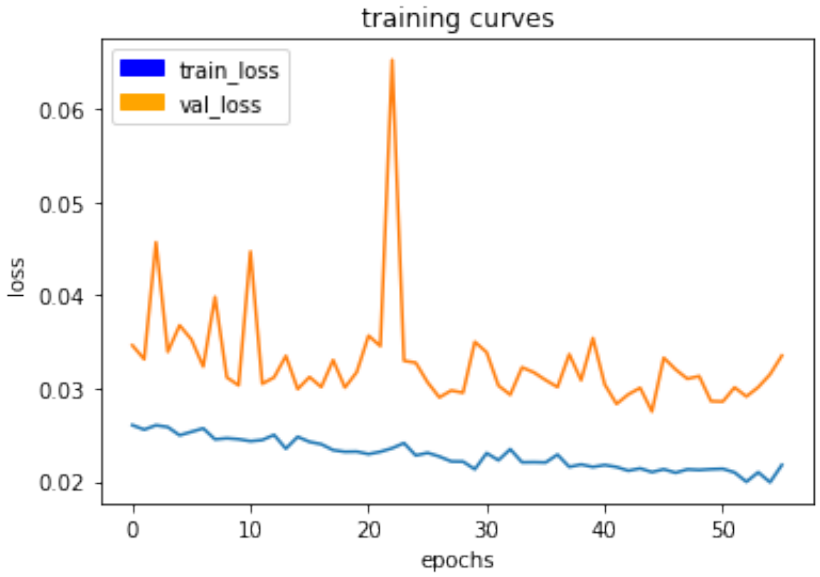
65/65 [==============================] - 187s - loss: 0.0199 - val_loss: 0.0291
Epoch 54/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0211



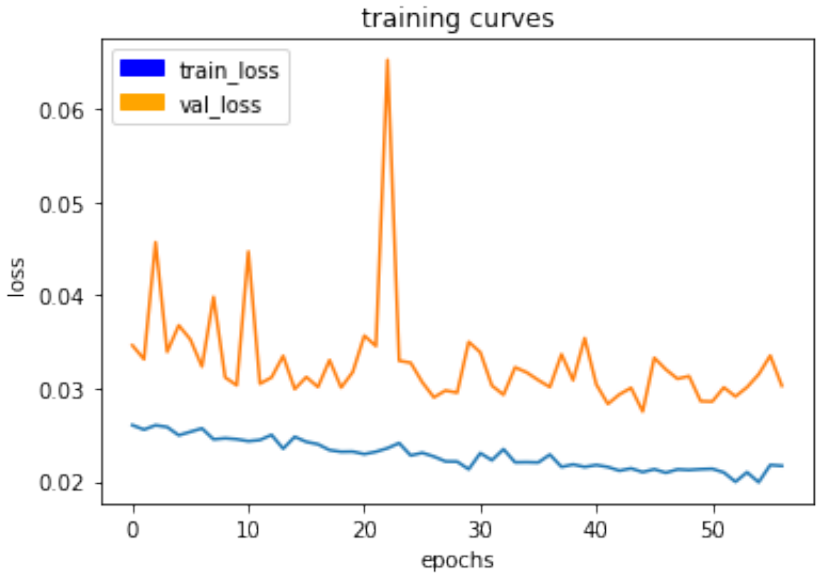
65/65 [==============================] - 187s - loss: 0.0210 - val_loss: 0.0301
Epoch 55/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0199



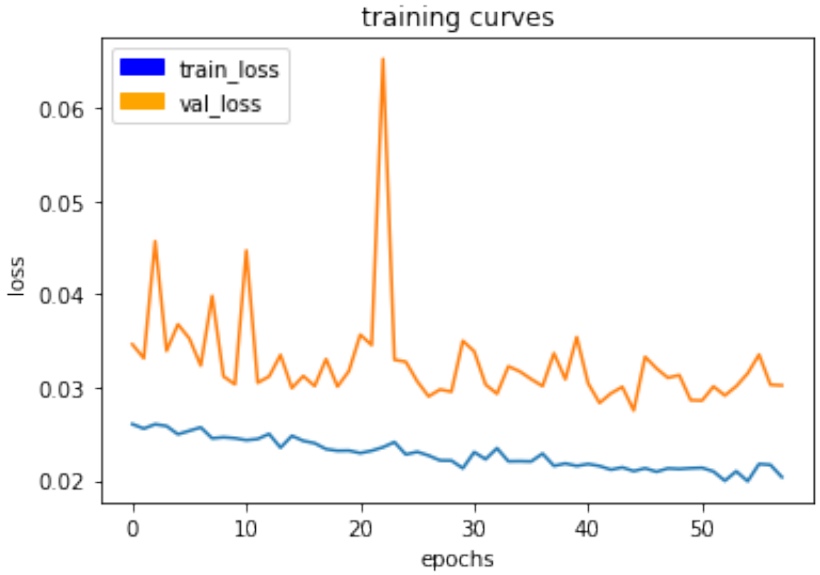
65/65 [==============================] - 186s - loss: 0.0199 - val_loss: 0.0315
Epoch 56/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0218



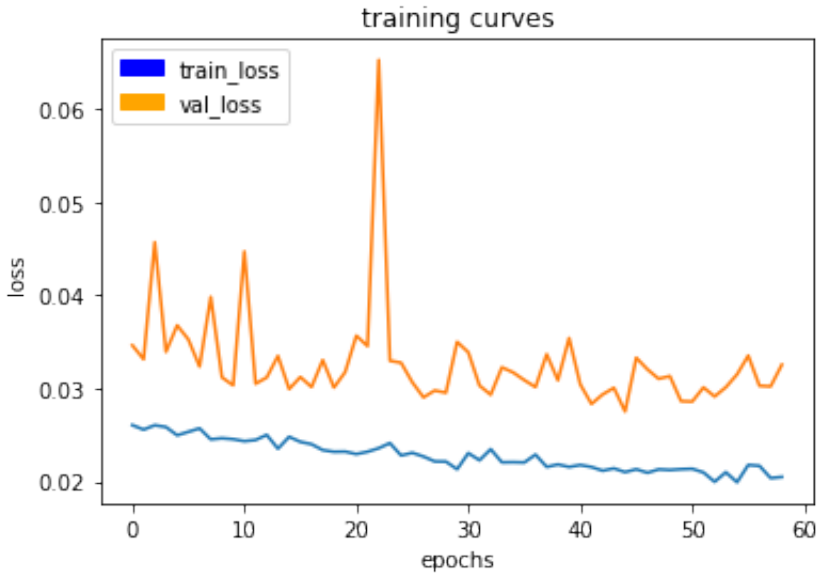
65/65 [==============================] - 187s - loss: 0.0218 - val_loss: 0.0335
Epoch 57/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0217



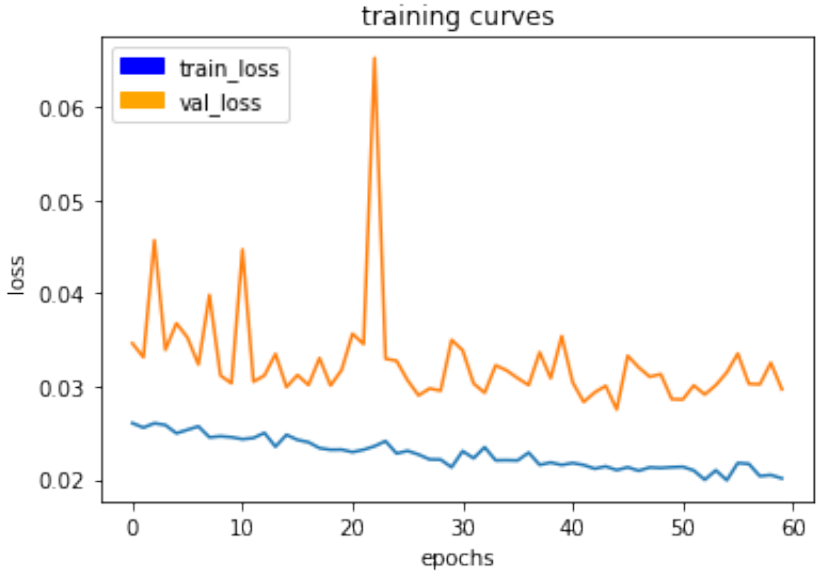
65/65 [==============================] - 187s - loss: 0.0217 - val_loss: 0.0303
Epoch 58/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0205



65/65 [==============================] - 187s - loss: 0.0204 - val_loss: 0.0302
Epoch 59/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0205

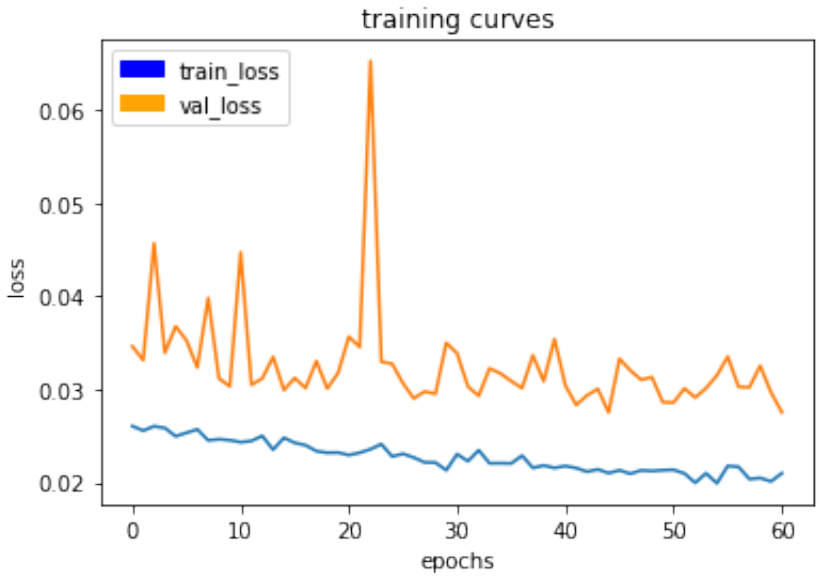


65/65 [==============================] - 187s - loss: 0.0204 - val_loss: 0.0325
Epoch 60/100
64/65 [============================>.] - ETA: 2s - loss: 0.0202

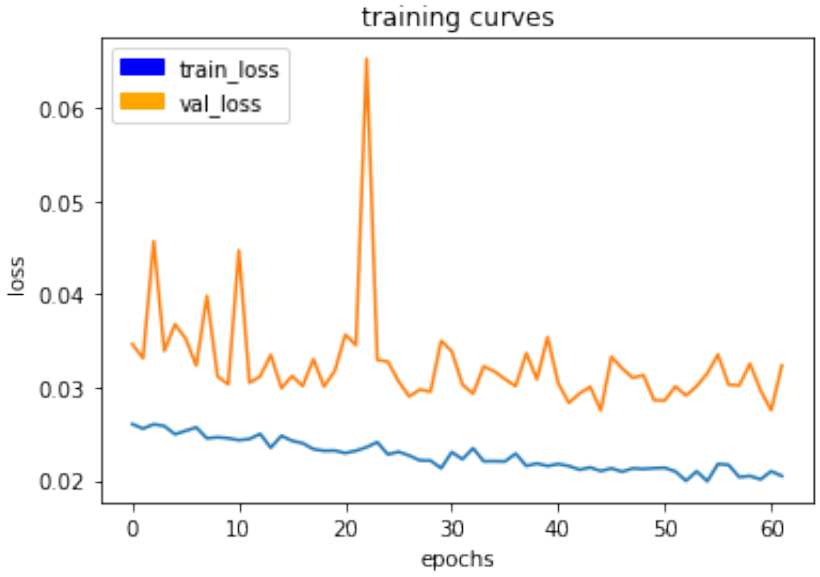


65/65 [==============================] - 187s - loss: 0.0202 - val_loss: 0.0297
Epoch 61/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0211

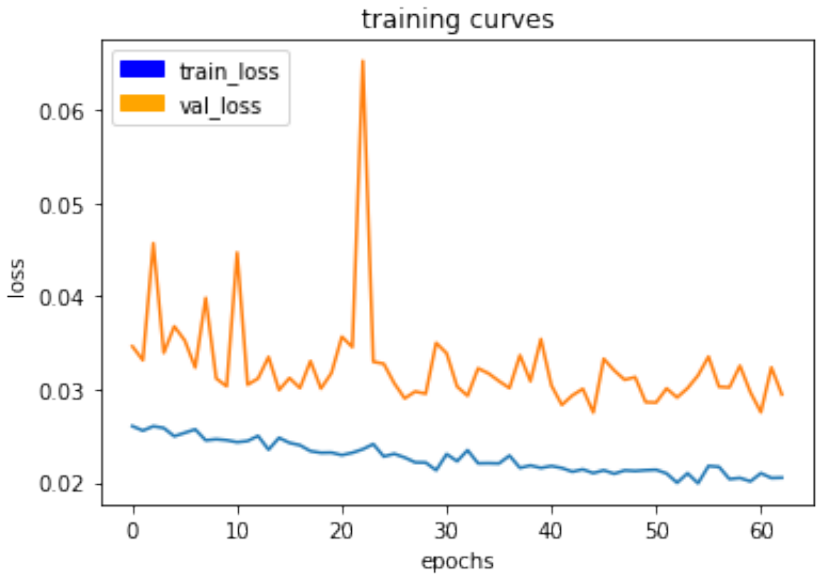


65/65 [==============================] - 187s - loss: 0.0210 - val_loss: 0.0275
Epoch 62/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0206

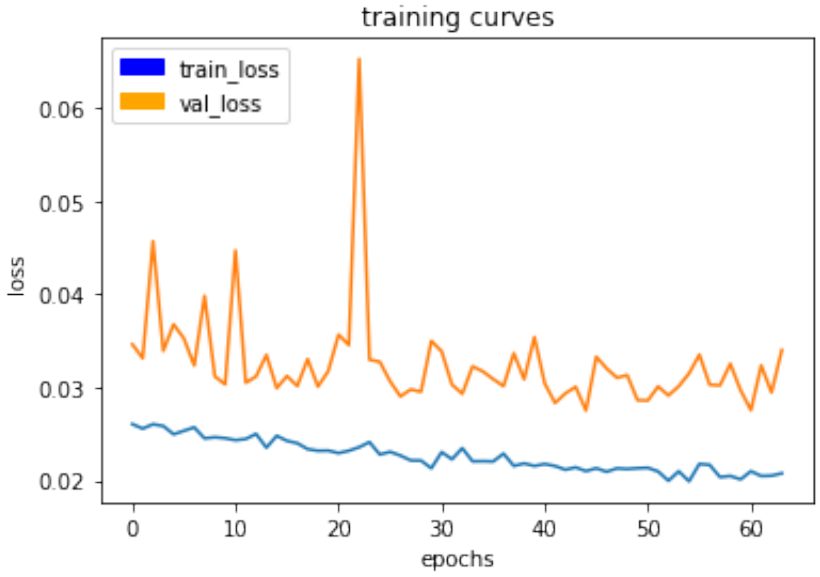


65/65 [==============================] - 187s - loss: 0.0206 - val_loss: 0.0324

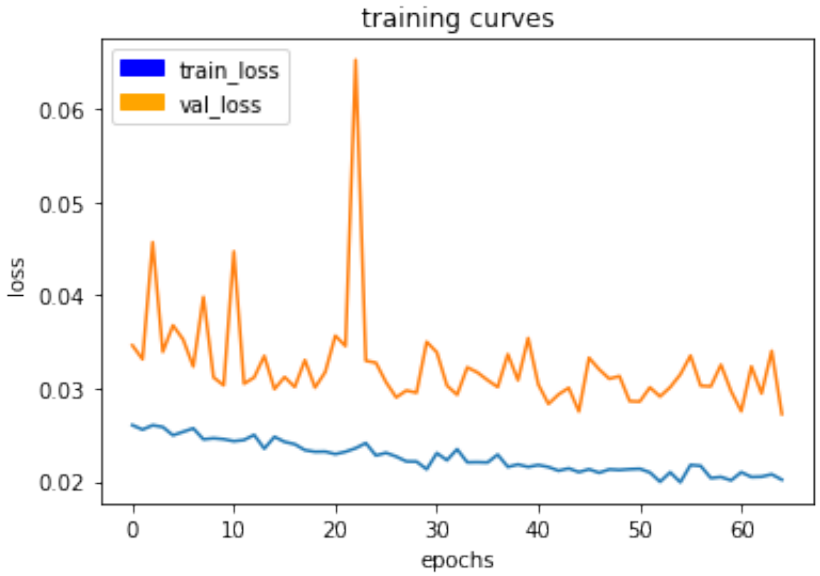
Epoch 63/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0205



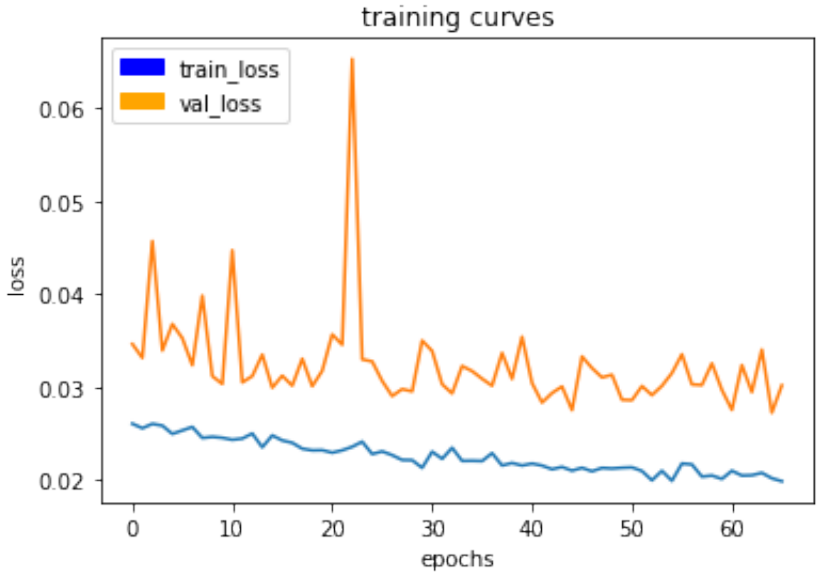
65/65 [==============================] - 186s - loss: 0.0205 - val_loss: 0.0295
Epoch 64/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0208



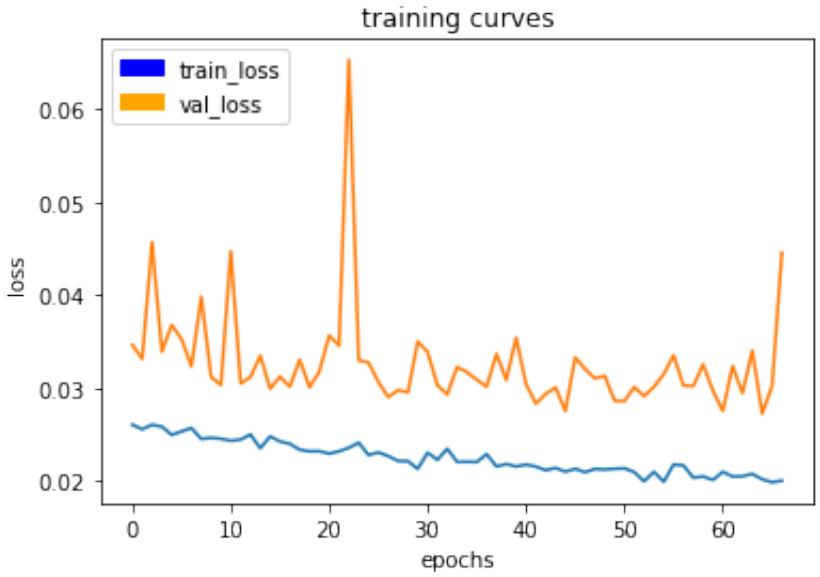
65/65 [==============================] - 187s - loss: 0.0208 - val_loss: 0.0340
Epoch 65/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0202



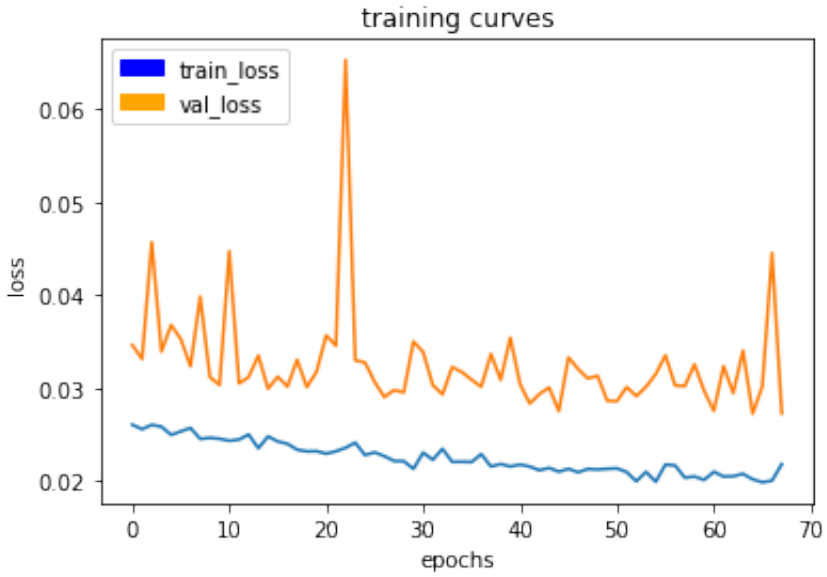
65/65 [==============================] - 186s - loss: 0.0202 - val_loss: 0.0272
Epoch 66/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0200



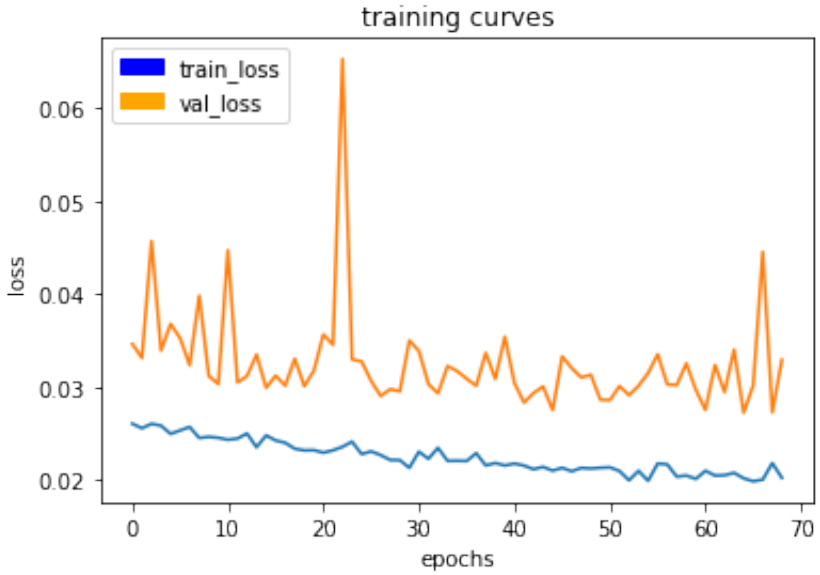
65/65 [==============================] - 187s - loss: 0.0200 - val_loss: 0.0302
Epoch 67/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0201



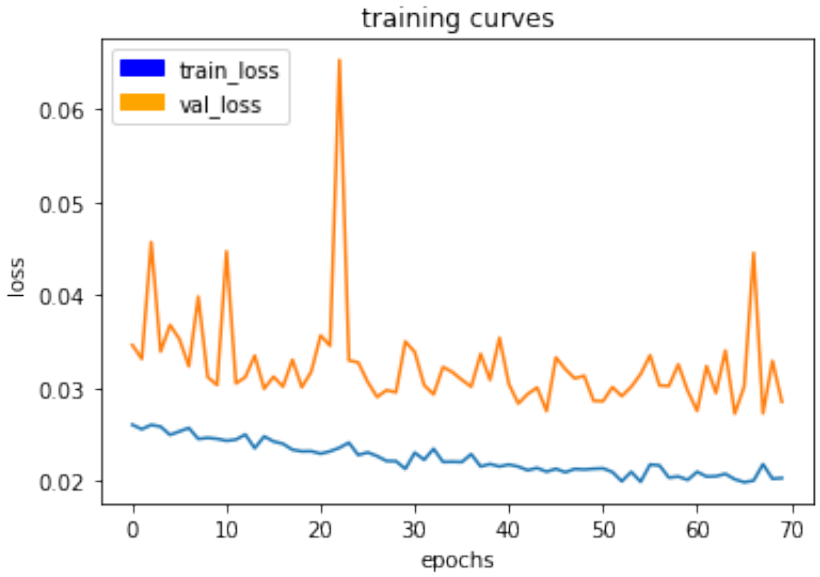
65/65 [==============================] - 187s - loss: 0.0200 - val_loss: 0.0445
Epoch 68/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0219



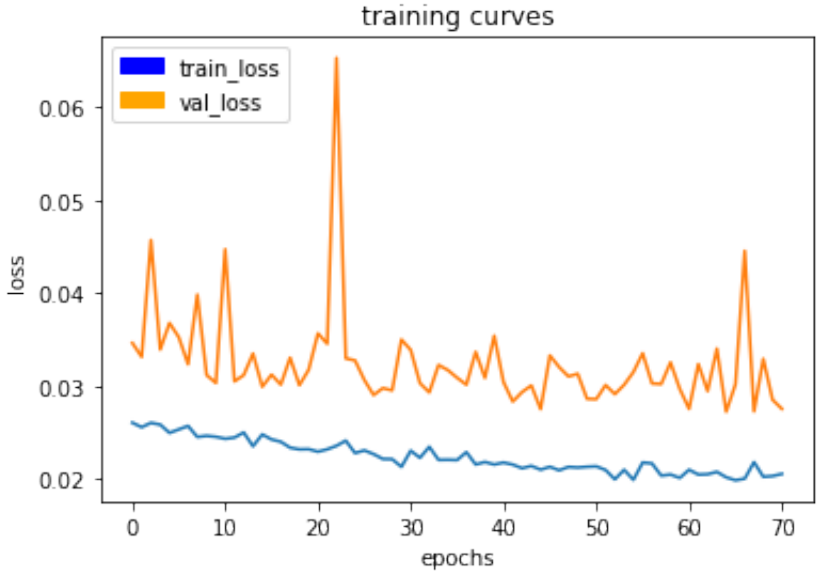
65/65 [==============================] - 186s - loss: 0.0218 - val_loss: 0.0273
Epoch 69/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0202



65/65 [==============================] - 187s - loss: 0.0203 - val_loss: 0.0329
Epoch 70/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0204

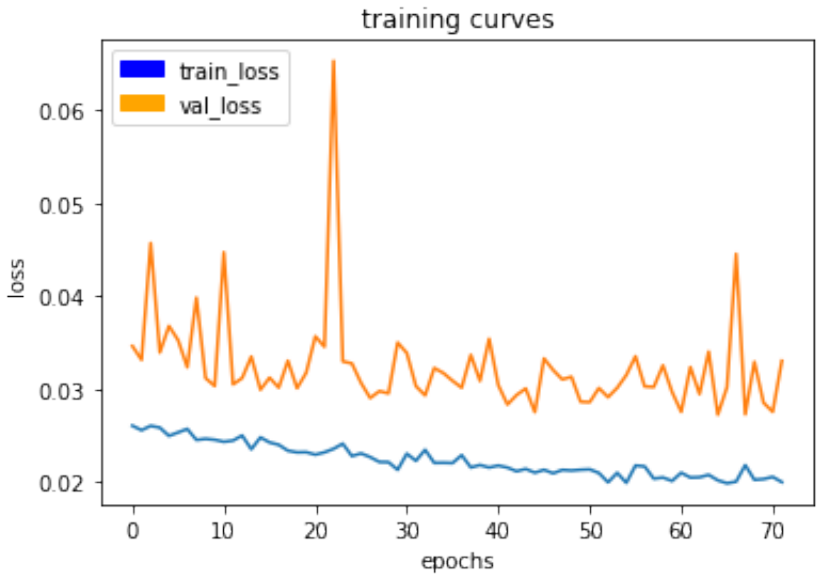


65/65 [==============================] - 187s - loss: 0.0203 - val_loss: 0.0285
Epoch 71/100
64/65 [============================>.] - ETA: 2s - loss: 0.0206

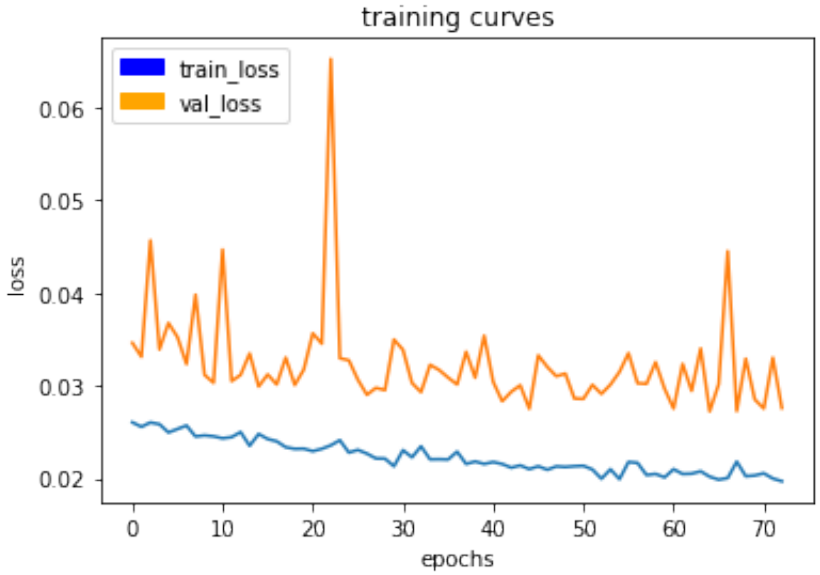


65/65 [==============================] - 187s - loss: 0.0206 - val_loss: 0.0276
Epoch 72/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0200

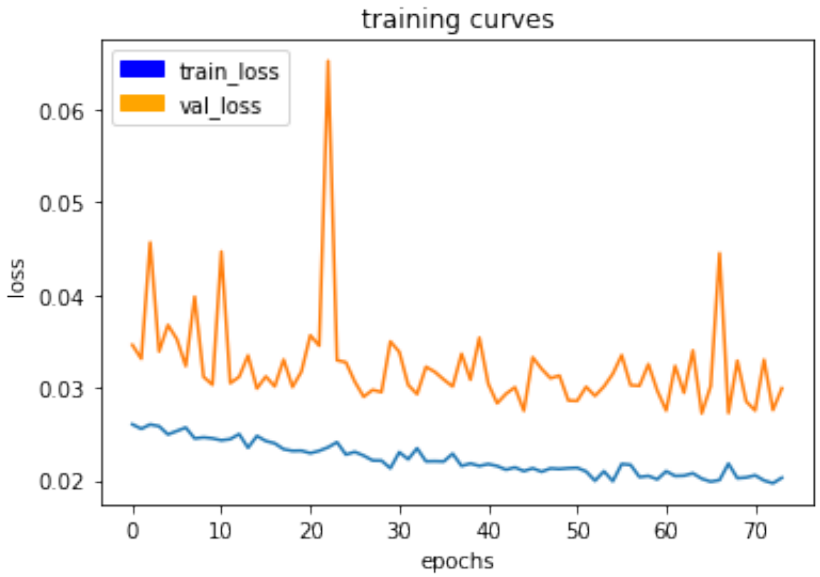


65/65 [==============================] - 187s - loss: 0.0200 - val_loss: 0.0330
Epoch 73/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0196

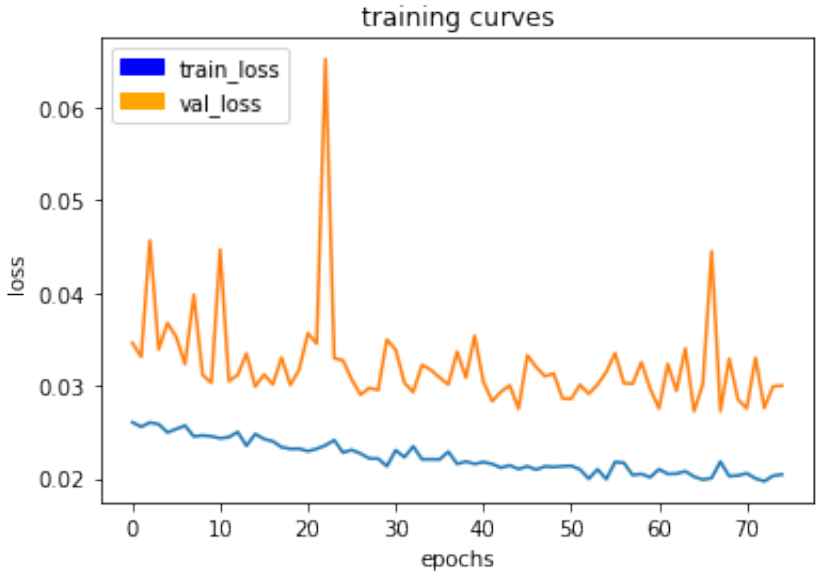


65/65 [==============================] - 187s - loss: 0.0197 - val_loss: 0.0276

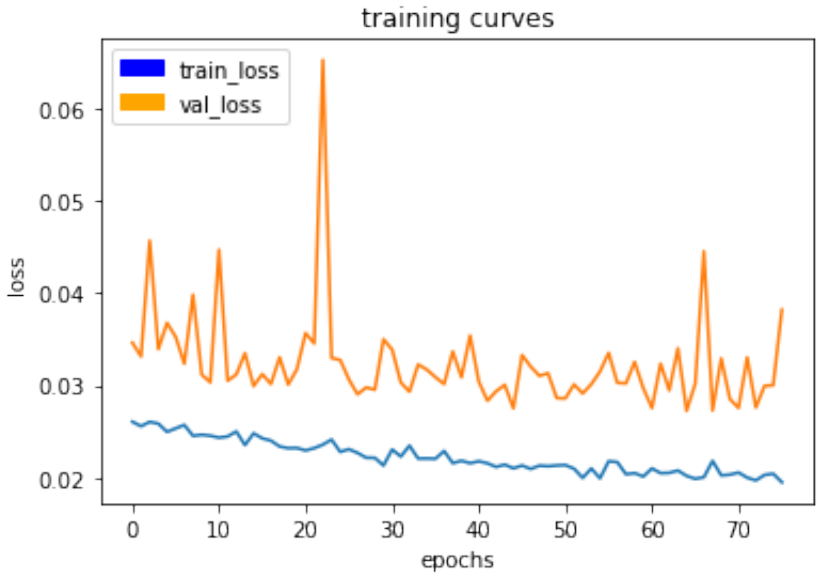
Epoch 74/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0203



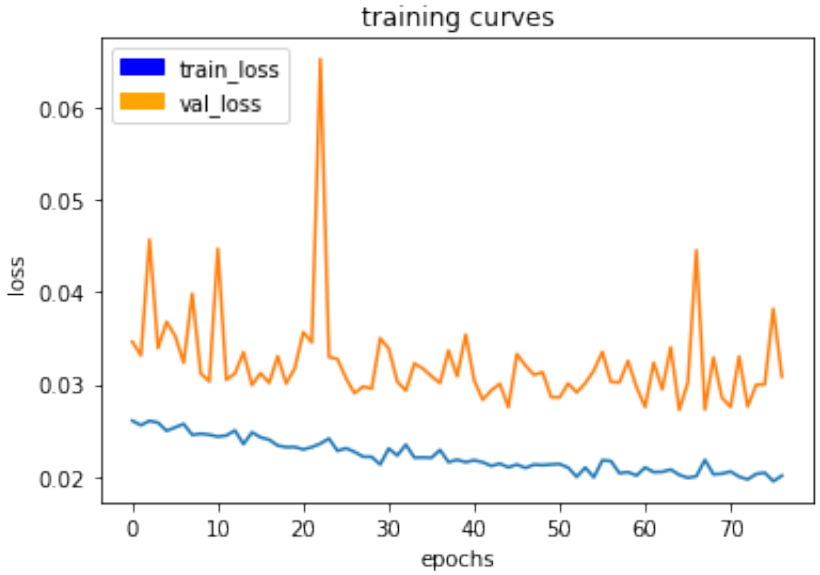
65/65 [==============================] - 187s - loss: 0.0203 - val_loss: 0.0299
Epoch 75/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0205



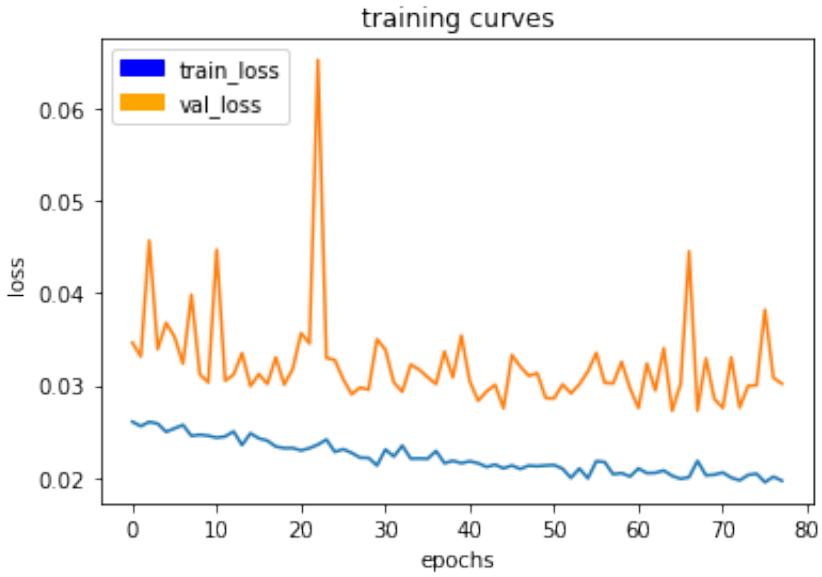
65/65 [==============================] - 186s - loss: 0.0204 - val_loss: 0.0300
Epoch 76/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0194



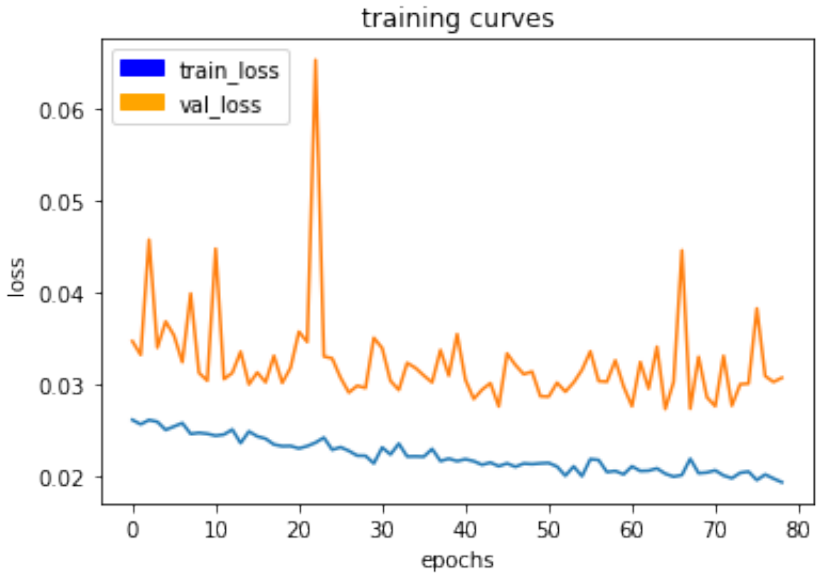
65/65 [==============================] - 187s - loss: 0.0195 - val_loss: 0.0382
Epoch 77/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0201



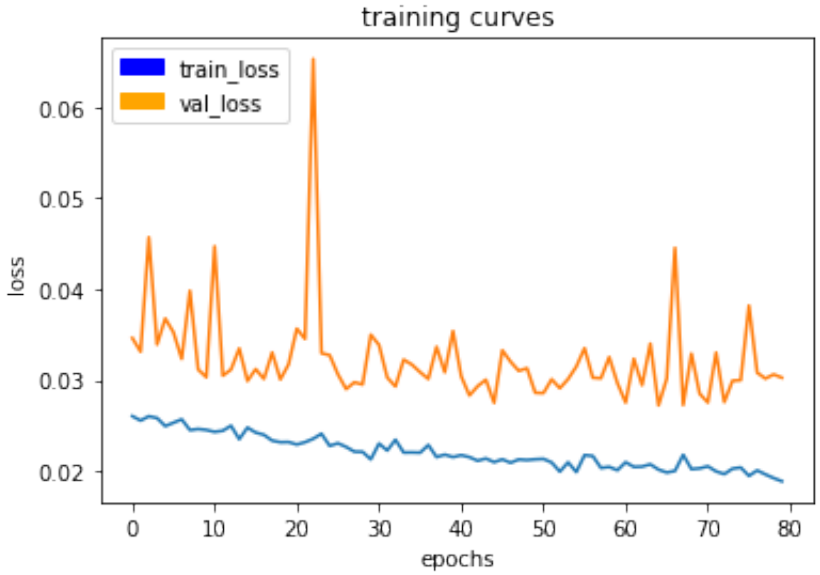
65/65 [==============================] - 187s - loss: 0.0201 - val_loss: 0.0308
Epoch 78/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0197



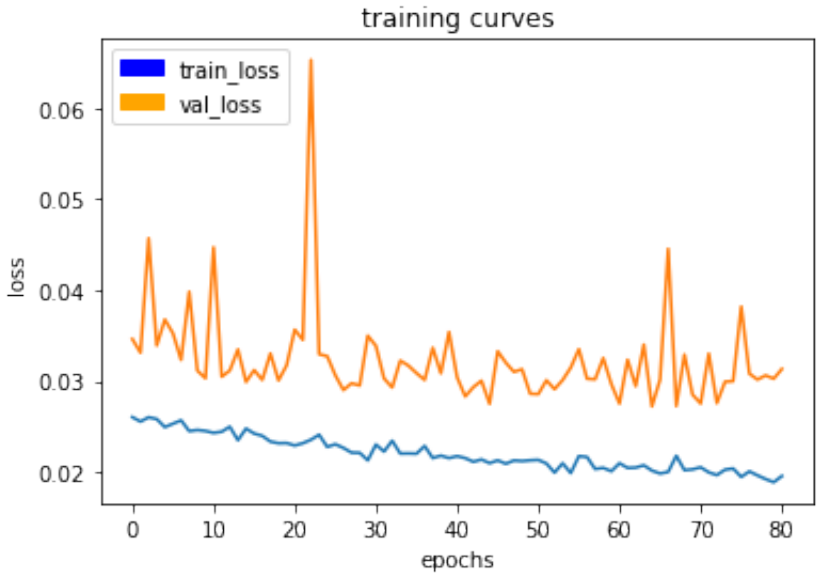
65/65 [==============================] - 187s - loss: 0.0197 - val_loss: 0.0302
Epoch 79/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0193



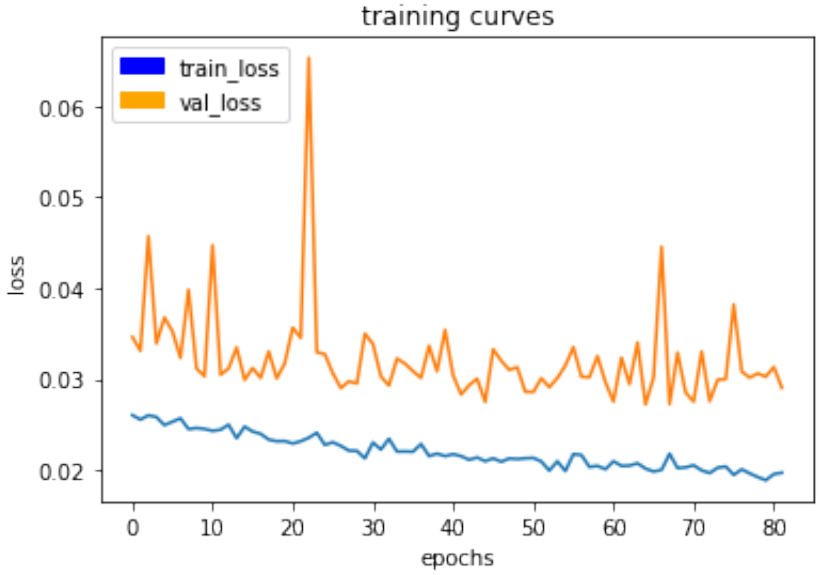
65/65 [==============================] - 187s - loss: 0.0193 - val_loss: 0.0306
Epoch 80/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0189



65/65 [==============================] - 187s - loss: 0.0189 - val_loss: 0.0303
Epoch 81/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0195

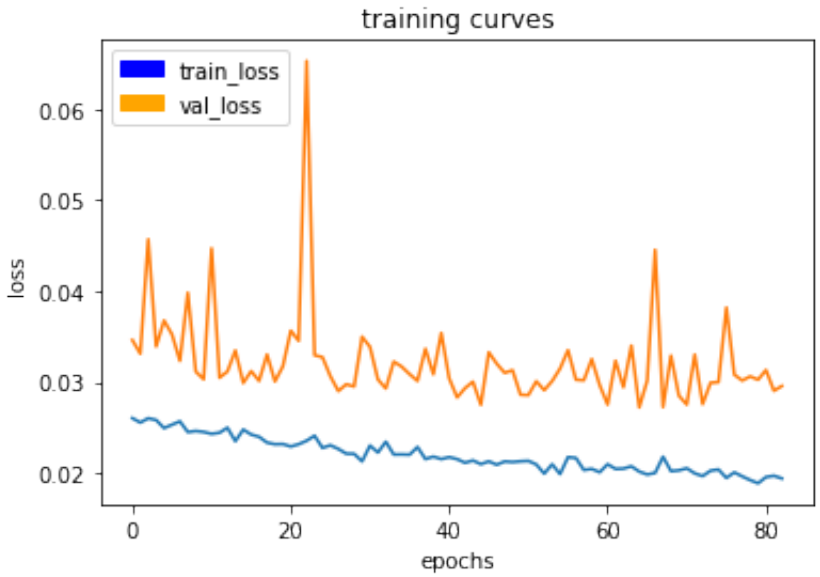


65/65 [==============================] - 187s - loss: 0.0196 - val_loss: 0.0313
Epoch 82/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0197

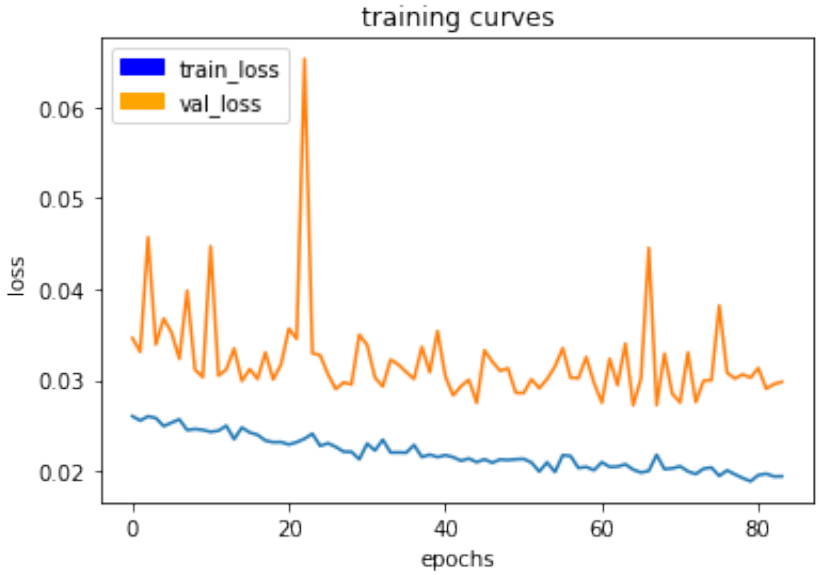


65/65 [==============================] - 187s - loss: 0.0197 - val_loss: 0.0291
Epoch 83/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0195

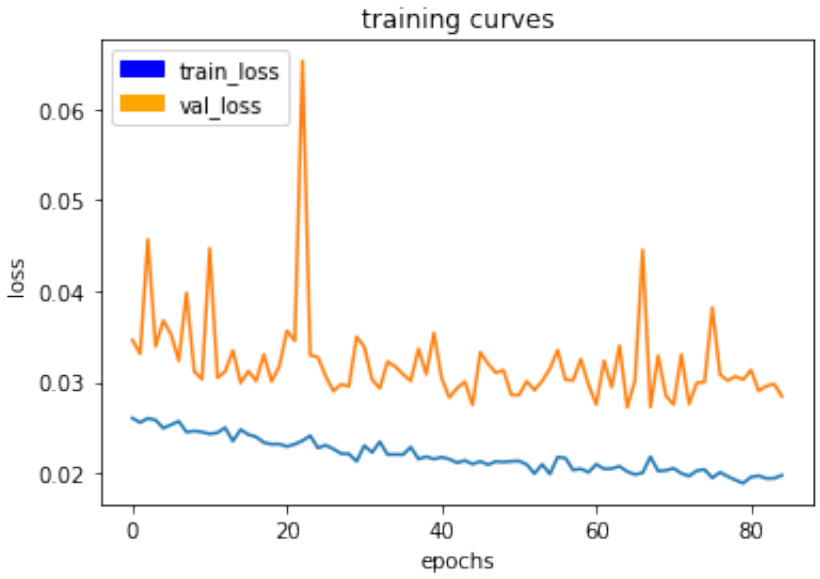


65/65 [==============================] - 186s - loss: 0.0194 - val_loss: 0.0296
Epoch 84/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0195

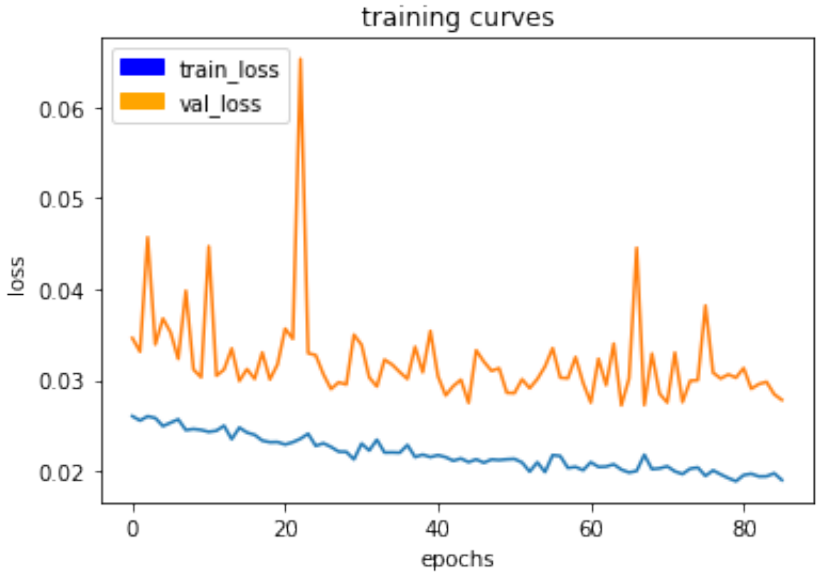


65/65 [==============================] - 187s - loss: 0.0195 - val_loss: 0.0298

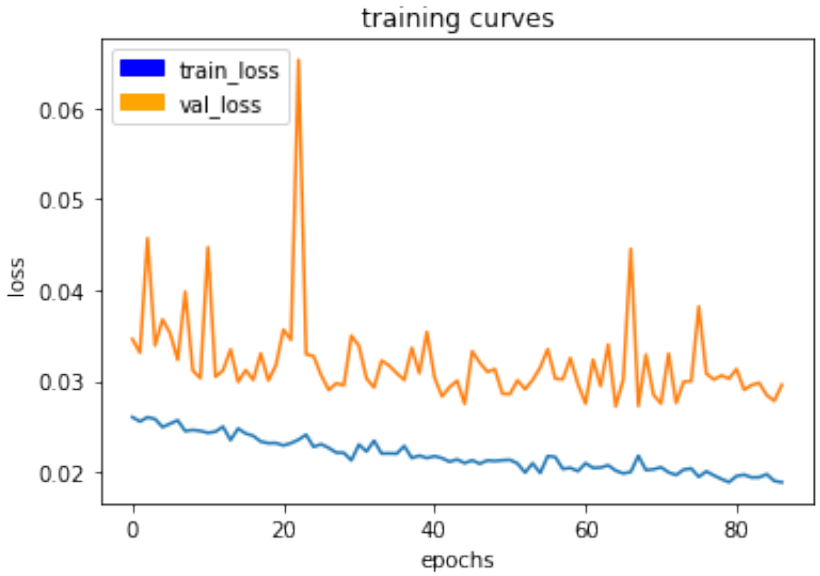
Epoch 85/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0199



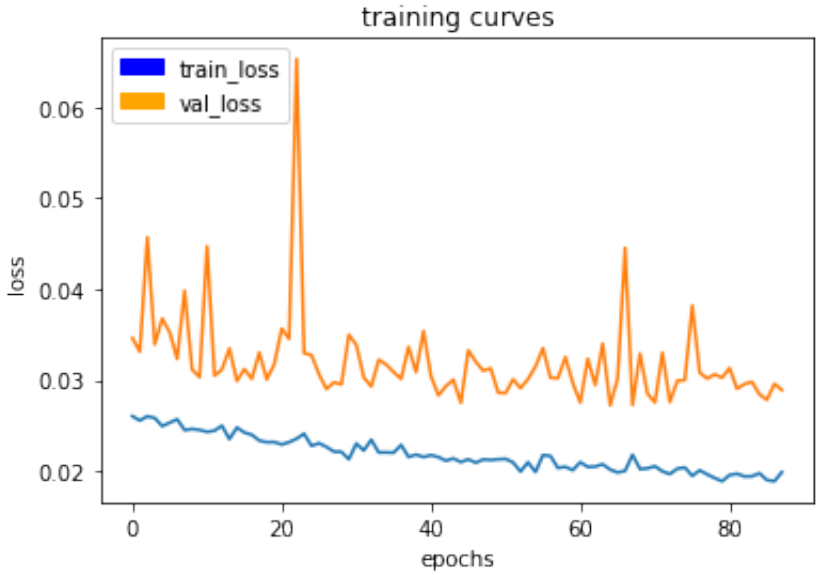
65/65 [==============================] - 186s - loss: 0.0198 - val_loss: 0.0285
Epoch 86/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0190



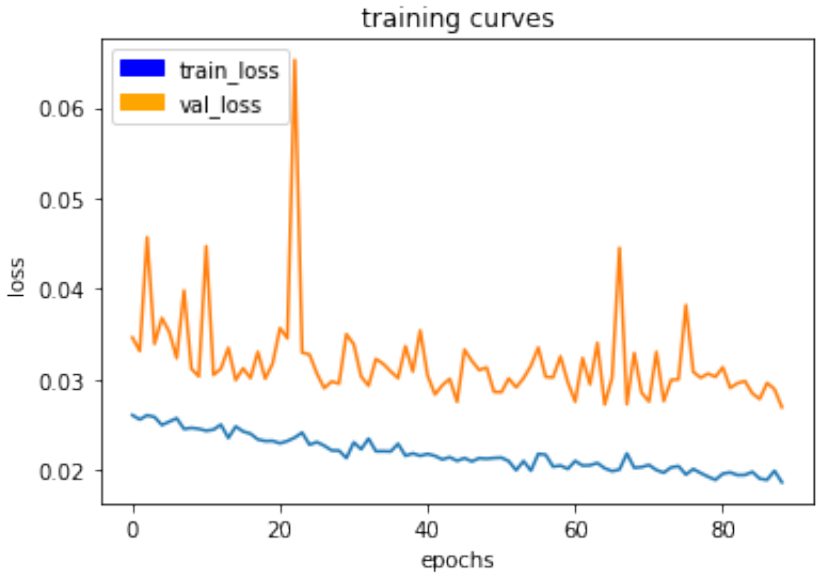
65/65 [==============================] - 187s - loss: 0.0190 - val_loss: 0.0278
Epoch 87/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0189



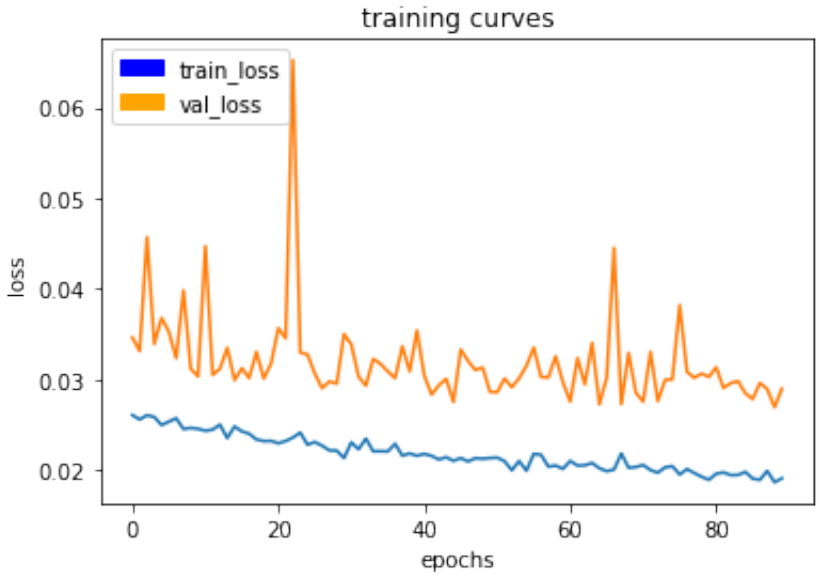
65/65 [==============================] - 187s - loss: 0.0189 - val_loss: 0.0296
Epoch 88/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0198



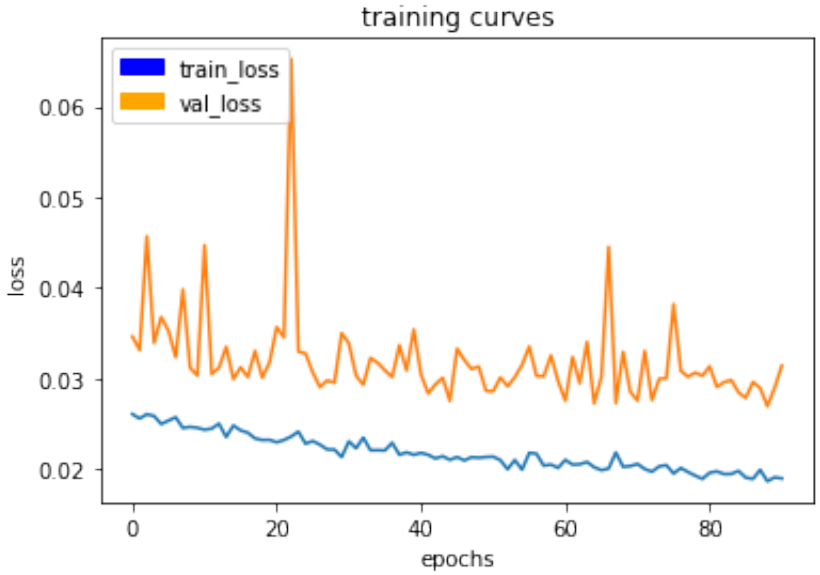
65/65 [==============================] - 186s - loss: 0.0199 - val_loss: 0.0289
Epoch 89/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0187



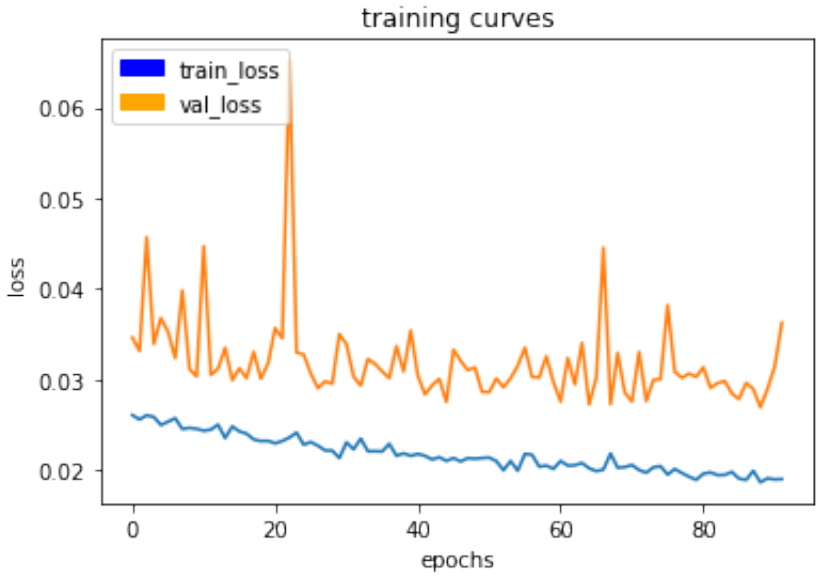
65/65 [==============================] - 187s - loss: 0.0186 - val_loss: 0.0269
Epoch 90/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0192



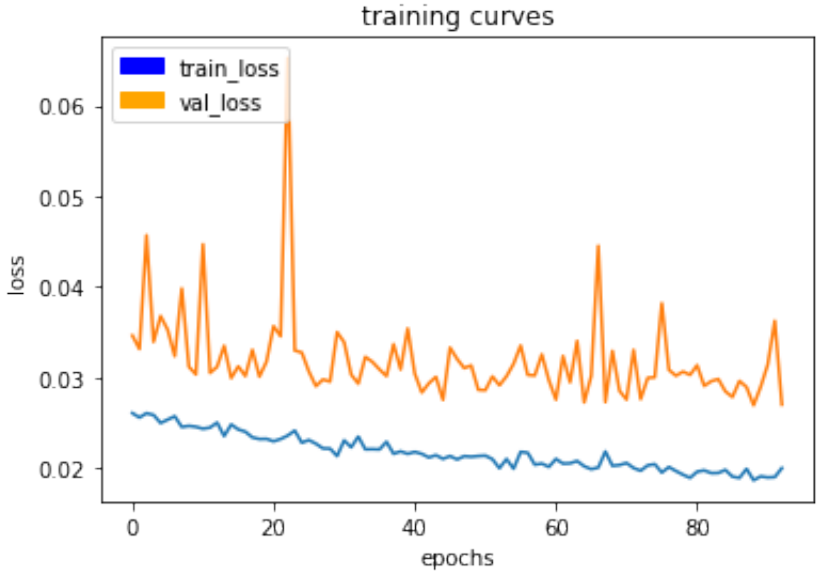
65/65 [==============================] - 187s - loss: 0.0191 - val_loss: 0.0290
Epoch 91/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0190



65/65 [==============================] - 187s - loss: 0.0189 - val_loss: 0.0314
Epoch 92/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0192

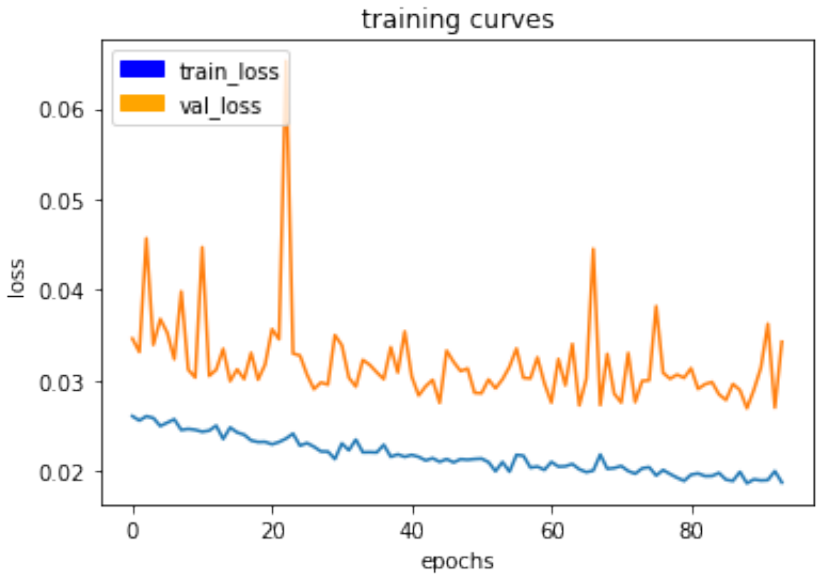


65/65 [==============================] - 186s - loss: 0.0192 - val_loss: 0.0362
Epoch 93/100
64/65 [============================>.] - ETA: 2s - loss: 0.0200

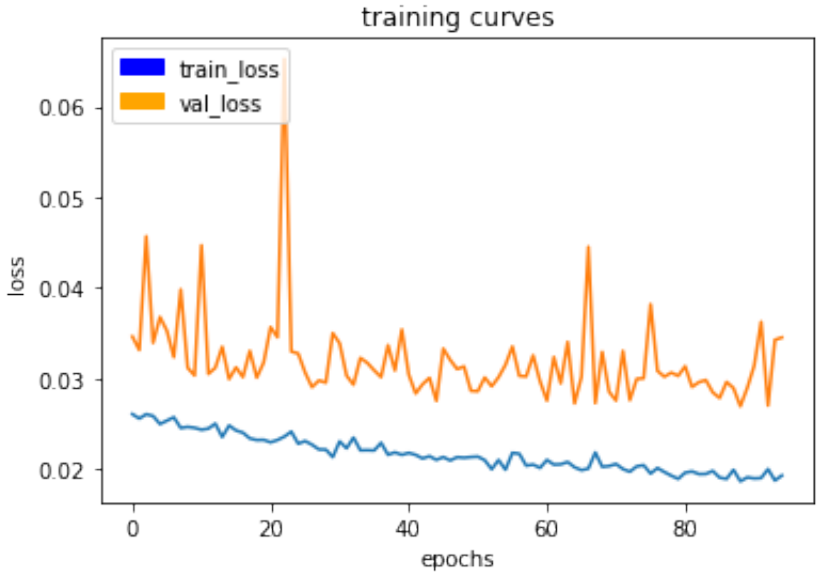


65/65 [==============================] - 187s - loss: 0.0200 - val_loss: 0.0270
Epoch 94/100

64/65 [==============================>.] - ETA: 2s - loss: 0.0190

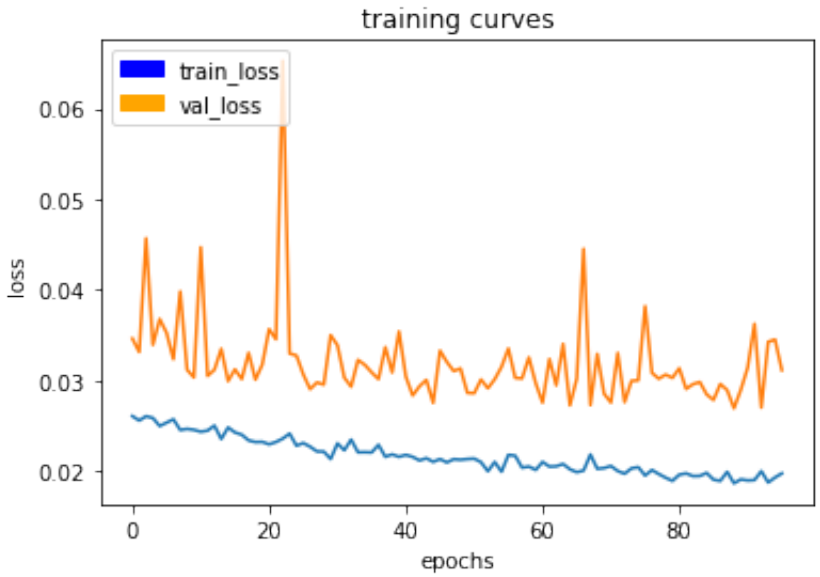


65/65 [==============================] - 187s - loss: 0.0190 - val_loss: 0.0343
Epoch 95/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0193

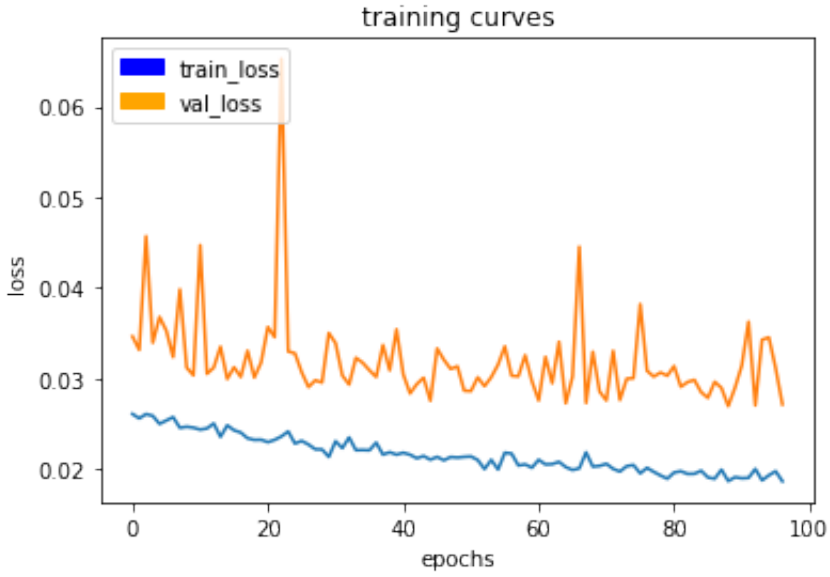


65/65 [==============================] - 186s - loss: 0.0193 - val_loss: 0.0345

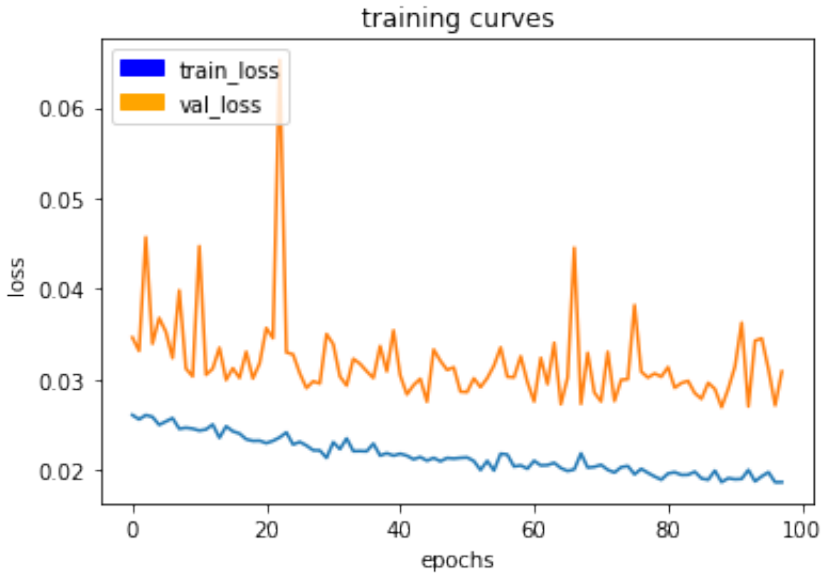
Epoch 96/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0198



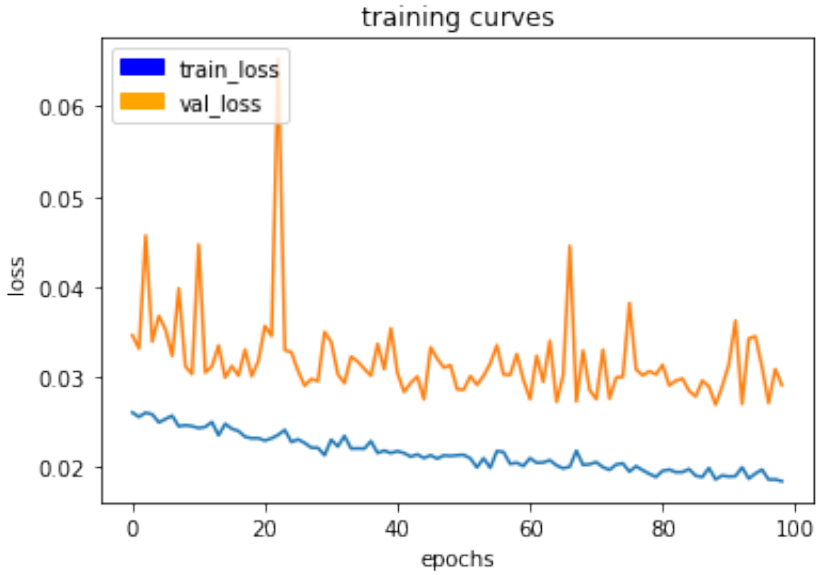
65/65 [==============================] - 187s - loss: 0.0197 - val_loss: 0.0311
Epoch 97/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0185



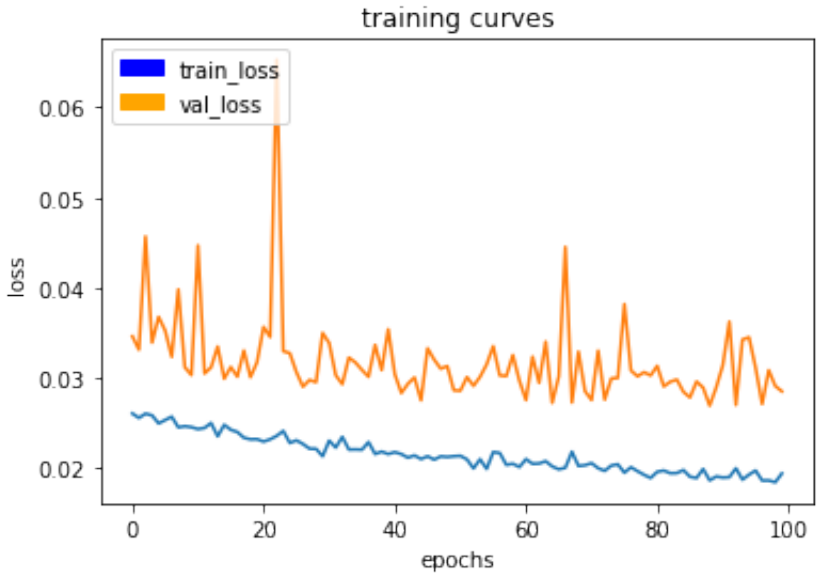
65/65 [==============================] - 186s - loss: 0.0187 - val_loss: 0.0271
Epoch 98/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0186



65/65 [==============================] - 186s - loss: 0.0186 - val_loss: 0.0309
Epoch 99/100
64/65 [==============================>.] - ETA: 2s - loss: 0.0185



65/65 [==============================] - 187s - loss: 0.0184 - val_loss: 0.0291
Epoch 100/100
64/65 [============================>.] - ETA: 2s - loss: 0.0191

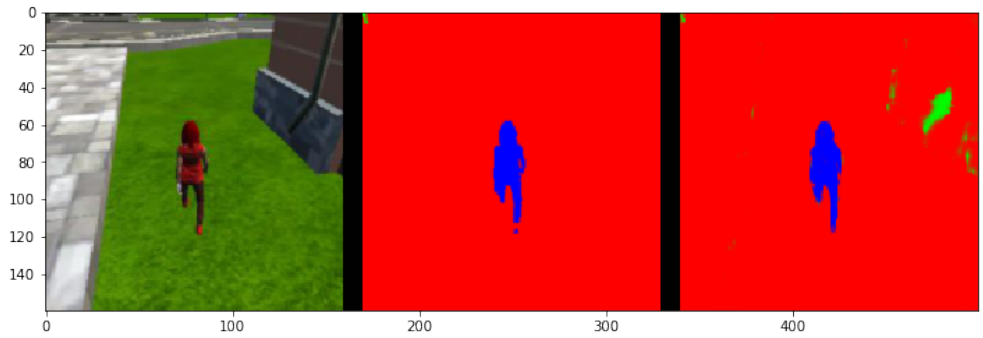


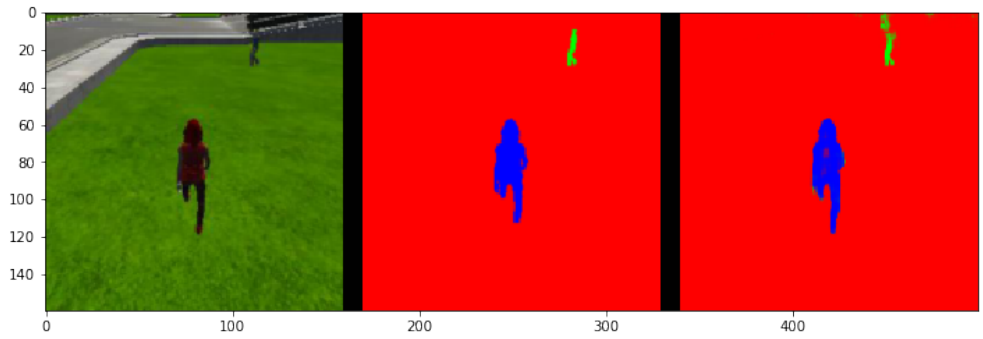
65/65 [==============================] - 186s - loss: 0.0194 - val_loss: 0.0285

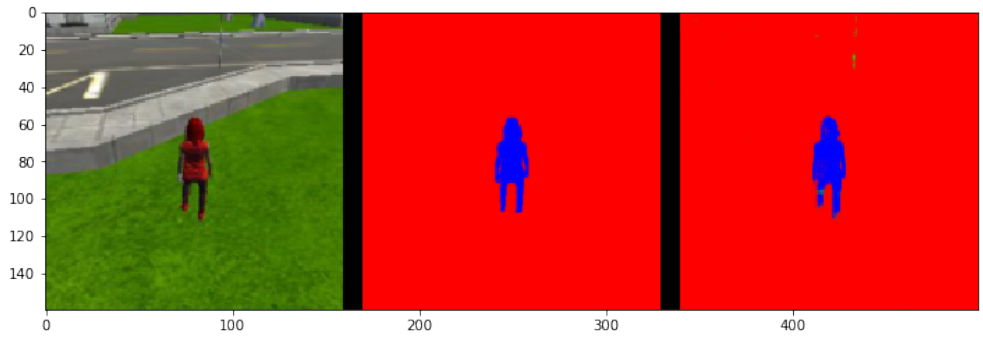
Scores for while the quad is following behind the target:

number of validation samples intersection over the union evaulated on 542
average intersection over union for background is 0.9943922632238236
average intersection over union for other people is 0.3493459834420628
average intersection over union for the hero is 0.887736713581679
number true positives: 539, number false positives: 0, number false negatives: 0

Images while following the target:







Scores for images while the quad is on patrol and the target is not visible:

number of validation samples intersection over the union evaulated on 270

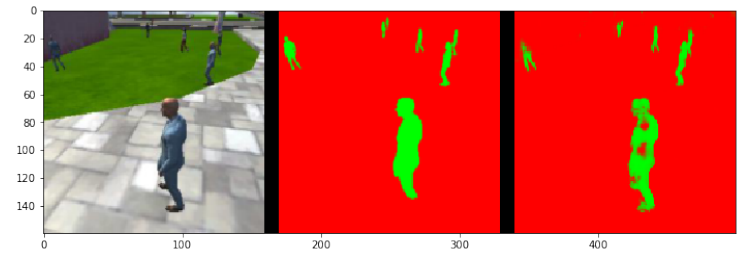
average intersection over union for background is 0.9835427221856471

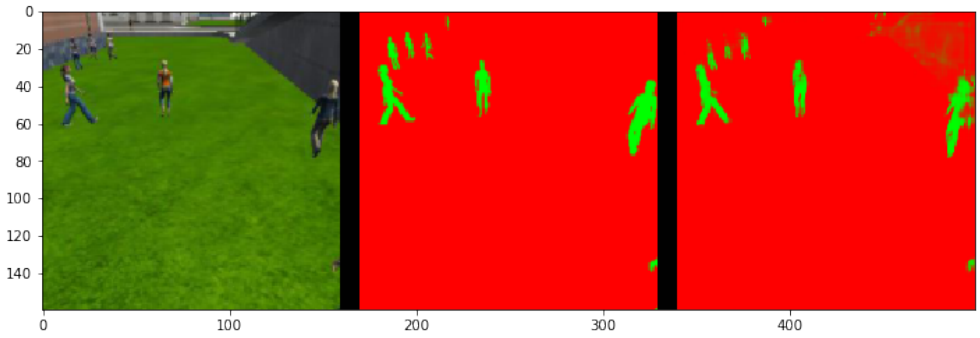
average intersection over union for other people is 0.6669176867400937

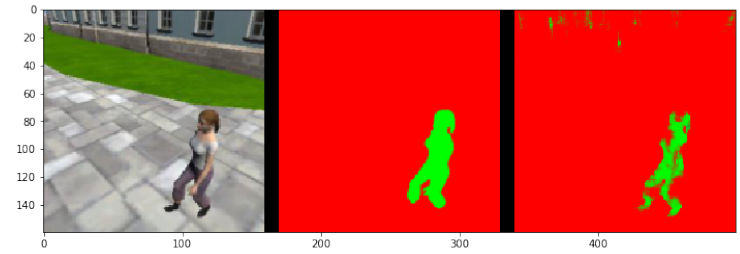
average intersection over union for the hero is 0.0

number true positives: 0, number false positives: 100, number false negatives: 0

Images while at patrol without target:







This score measures how well the neural network can detect the target from far away:

number of validation samples intersection over the union evaulated on 322

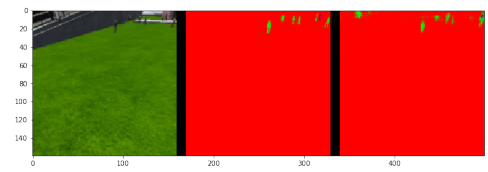
average intersection over union for background is 0.9953639647567724

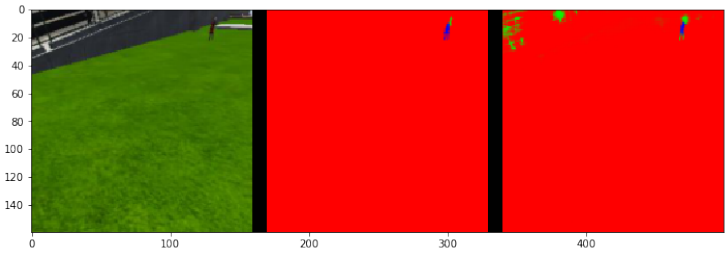
average intersection over union for other people is 0.4304604416323082

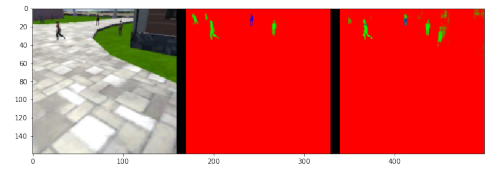
average intersection over union for the hero is 0.29743250563079177

number true positives: 175, number false positives: 2, number false negatives: 126

Images while at patrol with target:







Sum all the true positives, etc from the three datasets to get a weight for the score:

0.7579617834394905

Final IoU:

0.592584609606

Final score:

0.449156487536