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1 D:\OneDrive\TFG\TFG_Python\venv\Scripts\python.exe C:\
  Users\elias\AppData\Local\JetBrains\Toolbox\apps\PyCharm-P
  \ch-0\183.4284.139\helpers\pydev\pydevconsole.py --mode=
  client --port=50174
2
3 import sys; print('Python %s on %s' % (sys.version, sys.
  platform))
4 sys.path.extend(['D:\\OneDrive\\TFG\\TFG_Python', 'D:/
  OneDrive/TFG/TFG_Python'])
5
6 PyDev console: starting.
7
8 Python 3.6.7 (v3.6.7:6ec5cf24b7, Oct 20 2018, 13:35:33) [
  MSC v.1900 64 bit (AMD64)] on win32
9 >>> runfile('D:/OneDrive/TFG/TFG_Python/core/model.py',
  wdir='D:/OneDrive/TFG/TFG_Python/core')
10 Using TensorFlow backend.
11 ISBINARY: True
12 tipo
13 benign          2510
14 malignant       2510
15 premalignant    2510
16 dtype: int64
17 Valid gen: Img leidas= 0
18 Valid gen: Img leidas= 100
19 Valid gen: Img leidas= 200
20 Valid gen: Img leidas= 300
21 Valid gen: Img leidas= 400
22 Valid gen: Img leidas= 500
23 Valid gen: Img leidas= 600
24 Valid gen: Img leidas= 700
25 Valid gen: Img leidas= 800
26 Valid gen: Img leidas= 900
27 Valid gen: Img leidas= 1000
28 Valid gen: Img leidas= 1100
29 Valid gen: Img leidas= 1200
30 Creando modelo y compilandolo
31 2019-04-27 12:46:19.814411: I tensorflow/core/platform/
  cpu_feature_guard.cc:141] Your CPU supports instructions
  that this TensorFlow binary was not compiled to use: AVX2
32 2019-04-27 12:46:20.051048: I tensorflow/core/
  common_runtime/gpu/gpu_device.cc:1432] Found device 0 with
  properties:
33 name: GeForce GTX 1070 major: 6 minor: 1 memoryClockRate(
  GHz): 1.835
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34 pciBusID: 0000:26:00.0
35 totalMemory: 8.00GiB freeMemory: 6.64GiB
36 2019-04-27 12:46:20.051234: I tensorflow/core/
    common_runtime/gpu/gpu_device.cc:1511] Adding visible gpu
    devices: 0
37 2019-04-27 12:46:22.645117: I tensorflow/core/
    common_runtime/gpu/gpu_device.cc:982] Device interconnect
    StreamExecutor with strength 1 edge matrix:
38 2019-04-27 12:46:22.645217: I tensorflow/core/
    common_runtime/gpu/gpu_device.cc:988]      0
39 2019-04-27 12:46:22.645272: I tensorflow/core/
    common_runtime/gpu/gpu_device.cc:1001] 0:    N
40 2019-04-27 12:46:22.645460: I tensorflow/core/
    common_runtime/gpu/gpu_device.cc:1115] Created TensorFlow
    device (/job:localhost/replica:0/task:0/device:GPU:0 with
    6397 MB memory) -> physical GPU (device: 0, name: GeForce
    GTX 1070, pci bus id: 0000:26:00.0, compute capability: 6.
    1)
41 Se comienza el entrenamiento del modelo
42 ['loss', 'acc']
43 Epoch 1/40
44 2019-04-27 12:47:54.367743: W tensorflow/core/
    common_runtime/bfc_allocator.cc:211] Allocator (GPU_0_bfc
    ) ran out of memory trying to allocate 2.03GiB. The caller
    indicates that this is not a failure, but may mean that
    there could be performance gains if more memory were
    available.
45 2019-04-27 12:47:54.486550: W tensorflow/core/
    common_runtime/bfc_allocator.cc:211] Allocator (GPU_0_bfc
    ) ran out of memory trying to allocate 2.00GiB. The caller
    indicates that this is not a failure, but may mean that
    there could be performance gains if more memory were
    available.
46 2019-04-27 12:47:54.489615: W tensorflow/core/
    common_runtime/bfc_allocator.cc:211] Allocator (GPU_0_bfc
    ) ran out of memory trying to allocate 2.15GiB. The caller
    indicates that this is not a failure, but may mean that
    there could be performance gains if more memory were
    available.
47 - 101s - loss: 0.1312 - acc: 0.7094 - val_loss: 0.1818 -
    val_acc: 0.6705
48 Epoch 2/40
49 - 73s - loss: 0.1085 - acc: 0.7740 - val_loss: 0.2406 -
    val_acc: 0.6174
50 Epoch 3/40
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51 - 74s - loss: 0.0955 - acc: 0.7948 - val_loss: 0.2046 -  
    val_acc: 0.6174  
52 Epoch 4/40  
53 - 70s - loss: 0.0869 - acc: 0.8146 - val_loss: 0.1402 -  
    val_acc: 0.7303  
54 Epoch 5/40  
55 - 71s - loss: 0.0901 - acc: 0.7979 - val_loss: 0.1221 -  
    val_acc: 0.7834  
56 Epoch 6/40  
57 - 58s - loss: 0.0901 - acc: 0.8094 - val_loss: 0.0816 -  
    val_acc: 0.8282  
58 Epoch 7/40  
59 - 64s - loss: 0.0852 - acc: 0.8333 - val_loss: 0.1463 -  
    val_acc: 0.6896  
60 Epoch 8/40  
61 - 63s - loss: 0.0893 - acc: 0.8177 - val_loss: 0.4372 -  
    val_acc: 0.3427  
62 Epoch 9/40  
63 - 87s - loss: 0.0828 - acc: 0.8281 - val_loss: 0.1478 -  
    val_acc: 0.6689  
64 Epoch 10/40  
65 - 91s - loss: 0.0834 - acc: 0.8229 - val_loss: 0.2785 -  
    val_acc: 0.5029  
66 Epoch 11/40  
67 - 90s - loss: 0.0892 - acc: 0.8042 - val_loss: 0.1551 -  
    val_acc: 0.6822  
68  
69 Epoch 00011: ReduceLROnPlateau reducing learning rate to 0  
    .000100000000474974513.  
70 Epoch 12/40  
71 - 119s - loss: 0.1027 - acc: 0.7906 - val_loss: 0.1020 -  
    val_acc: 0.7917  
72 Epoch 13/40  
73 - 82s - loss: 0.0819 - acc: 0.8208 - val_loss: 0.0941 -  
    val_acc: 0.8041  
74 Epoch 14/40  
75 - 64s - loss: 0.0715 - acc: 0.8635 - val_loss: 0.0932 -  
    val_acc: 0.8008  
76 Epoch 15/40  
77 - 62s - loss: 0.0738 - acc: 0.8396 - val_loss: 0.1014 -  
    val_acc: 0.7751  
78 Epoch 16/40  
79 - 70s - loss: 0.0746 - acc: 0.8531 - val_loss: 0.0869 -  
    val_acc: 0.8116  
80
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81 Epoch 00016: ReduceLROnPlateau reducing learning rate to
    1.0000000474974514e-05.
82 Entrenamiento completado, se procede al test final
83
84 32/1506 [.....] - ETA: 11s
85 64/1506 [>.....] - ETA: 10s
86 96/1506 [>.....] - ETA: 10s
87 128/1506 [=>.....] - ETA: 9s
88 160/1506 [==>.....] - ETA: 9s
89 192/1506 [==>.....] - ETA: 9s
90 224/1506 [===>.....] - ETA: 8s
91 256/1506 [===>.....] - ETA: 8s
92 288/1506 [===>.....] - ETA: 8s
93 320/1506 [====>.....] - ETA: 8s
94 352/1506 [====>.....] - ETA: 7s
95 384/1506 [====>.....] - ETA: 7s
96 416/1506 [====>.....] - ETA: 7s
97 448/1506 [====>.....] - ETA: 7s
98 480/1506 [====>.....] - ETA: 7s
99 512/1506 [====>.....] - ETA: 6s
100 544/1506 [====>.....] - ETA: 6s
101 576/1506 [====>.....] - ETA: 6s
102 608/1506 [====>.....] - ETA: 6s
103 640/1506 [====>.....] - ETA: 5s
104 672/1506 [====>.....] - ETA: 5s
105 704/1506 [====>.....] - ETA: 5s
106 736/1506 [====>.....] - ETA: 5s
107 768/1506 [====>.....] - ETA: 5s
108 800/1506 [====>.....] - ETA: 4s
109 832/1506 [====>.....] - ETA: 4s
110 864/1506 [====>.....] - ETA: 4s
111 896/1506 [====>.....] - ETA: 4s
112 928/1506 [====>.....] - ETA: 3s
113 960/1506 [====>.....] - ETA: 3s
114 992/1506 [====>.....] - ETA: 3s
115 1024/1506 [====>.....] - ETA: 3s
116 1056/1506 [====>.....] - ETA: 3s
117 1088/1506 [====>.....] - ETA: 2s
118 1120/1506 [====>.....] - ETA: 2s
119 1152/1506 [====>.....] - ETA: 2s
120 1184/1506 [====>.....] - ETA: 2s
121 1216/1506 [====>.....] - ETA: 1s
122 1248/1506 [====>.....] - ETA: 1s
123 1280/1506 [====>.....] - ETA: 1s
124 1312/1506 [====>.....] - ETA: 1s
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125 1344/1506 [=====>....] - ETA: 1s
126 1376/1506 [=====>...] - ETA: 0s
127 1408/1506 [=====>..] - ETA: 0s
128 1440/1506 [=====>.] - ETA: 0s
129 1472/1506 [=====>.] - ETA: 0s
130 1504/1506 [=====>.] - ETA: 0s
131 1506/1506 [=====] - 10s 7ms/step
132 ['loss', 'acc']
133 [0.08687514028107503, 0.8134130146082338]
134 Ahora vamos a dibujar la matriz de confusion
135 ['benign', 'prealignant', 'malignant']
136 Normalized confusion matrix
137 [[0.72895277 0.21560575 0.05544148]
138  [0.26162791 0.72093023 0.01744186]
139  [0.00397614 0.00596421 0.99005964]]
140 El entrenamiento ha llevado : 1522.896490097046
141
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