

04/05/2020

Rete: Alexnet.

Dataset: ORIGA-light (168 glaucoma / 480 normali)

Split: 0.8 training / 0.2 validation (640 elementi)

Augmentation: Null

Options:

```
'MiniBatchSize',10 , ...  
'MaxEpochs',6, ...  
'InitialLearnRate',3e-4, ...  
'Shuffle','every-epoch', ...  
'ValidationData',testAug, ...  
'ValidationFrequency',*valFrequency, ...  
'Verbose',false, ...  
'Plots','training-progress'
```

```
*valFrequency = floor(numel(augimdsTrain.Files)/miniBatchSize);
```

Accuracy: 0.7422

Test:

Glaucoma

Im0643_g_ORIGA	0.3288	0.6712
Im0644_g_ORIGA	0.2600	0.7400
Im0645_g_ORIGA	0.5005	0.4995 T
Im0646_g_ORIGA	0.3914	0.6086
Im0647_g_ORIGA	0.3446	0.6554

Normali

Im0478_ORIGA	0.3470	0.6530 T
Im0479_ORIGA	0.1546	0.8454 T
Im0480_ORIGA	0.3716	0.6284 T
Im0481_ORIGA	0.3624	0.6376 T
Im0482_ORIGA	0.0669	0.9331 T

Rete: Alexnet.

Dataset: ORIGA-light (168 glaucoma / 480 normali)

Split: 0.8 training / 0.2 validation (640 elementi)

Augmentation:

```
pixelRange = [-30 30];  
scaleRange = [0.9 1.1];  
imageAugmenter = imageDataAugmenter( ...  
'RandXReflection',true, ...  
'RandXTranslation',pixelRange, ...  
'RandYTranslation',pixelRange, ...  
'RandXScale',scaleRange, ...  
'RandYScale',scaleRange);
```

Options:

```
'MiniBatchSize',10 , ...
'MaxEpochs',6, ...
'InitialLearnRate',3e-4, ...
'Shuffle','every-epoch', ...
'ValidationData',testAug, ...
'ValidationFrequency',*valFrequency, ...
'Verbose',false, ...
'Plots','training-progress'
```

Accuracy: 0.7422

Test:

Glaucoma

Im0643_g_ORIGA	0.2581	0.7419
Im0644_g_ORIGA	0.2884	0.7116
Im0645_g_ORIGA	0.3024	0.6976
Im0646_g_ORIGA	0.2428	0.7572
Im0647_g_ORIGA	0.3122	0.6878

Normali

Im0478_ORIGA	0.4093	0.5907 T
Im0479_ORIGA	0.2970	0.7030T
Im0480_ORIGA	0.2154	0.7846 T
Im0481_ORIGA	0.3417	0.6583 T
Im0482_ORIGA	0.3146	0.6854 T

Note:

- Link dataset - https://www.researchgate.net/publication/49626932_ORIGA-light_An_Online_Retinal_Fundus_Image_Database_for_Glaucoma_Analysis_and_Research