

**Rete:** Alexnet.

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

**Split:** 0.8 training / 0.2 validation (640 elementi)

**Augmentation:** Null

**Options:**

```
'MiniBatchSize',10 , ...  
'MaxEpochs',10, ...  
'InitialLearnRate', 0.0001, ...  
'Shuffle','every-epoch', ...  
'ValidationData',testAug, ...  
'ValidationFrequency',*valFrequency, ...  
'Verbose',false, ...  
'Plots','training-progress'
```

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

**Accuracy: 0.7734**

**Test:**

Glaucoma

Im0643_g_ORIGA	0.1703	0.8297
Im0644_g_ORIGA	0.1926	0.8074
Im0645_g_ORIGA	0.8373	0.1627 T
Im0646_g_ORIGA	0.8223	0.1777 T
Im0647_g_ORIGA	0.6499	0.3501 T

Normali

Im0478_ORIGA	0.5245	0.4755
Im0479_ORIGA	0.0647	0.9353 T
Im0480_ORIGA	0.8528	0.1472
Im0481_ORIGA	0.7681	0.2319
Im0482_ORIGA	0.0517	0.9483 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];  
angleRange = [-45 45];  
imageAugmenter = imageDataAugmenter( ...  
    'RandXReflection',true, ...  
    'RandXTranslation',pixelRange, ...  
    'RandYTranslation',pixelRange, ...  
    'RandXScale',scaleRange, ...  
    'RandYScale',scaleRange, ...  
    'RandRotation', angleRange);
```

### Options:

```
'MiniBatchSize',10 , ...  
'MaxEpochs',10, ...  
'InitialLearnRate', 0.0001, ...  
'Shuffle','every-epoch', ...  
'ValidationData',testAug, ...  
'ValidationFrequency',*valFrequency, ...  
'Verbose',false, ...  
'Plots','training-progress'
```

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

### Accuracy: 0.7891

#### Test:

##### Glaucoma

Im0643_g_ORIGA	0.1873	0.8127
Im0644_g_ORIGA	0.4416	0.5584
Im0645_g_ORIGA	0.4719	0.5281
Im0646_g_ORIGA	0.3754	0.6246
Im0647_g_ORIGA	0.4781	0.5219

##### Normali

Im0478_ORIGA	0.4150	0.5850	T	/
Im0479_ORIGA	0.1984	0.8016	T	/
Im0480_ORIGA	0.3868	0.6132	T	/
Im0481_ORIGA	0.5570	0.4430		/
Im0482_ORIGA	0.0671	0.9329	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];  
angleRange = [-90 90];  
imageAugmenter = imageDataAugmenter( ...  
'RandXReflection',true, ...  
'RandXTranslation',pixelRange, ...  
'RandYTranslation',pixelRange, ...  
'RandXScale',scaleRange, ...  
'RandYScale',scaleRange, ...  
'RandRotation', angleRange);
```

### Options:

```
miniBatchSize = 10;  
valFrequency = floor(numel(augimdsTrain.Files)/miniBatchSize);  
options = trainingOptions('sgdm', ...  
'MiniBatchSize',miniBatchSize, ...  
'MaxEpochs',14, ...  
'InitialLearnRate',0.00008, ...  
'Shuffle','every-epoch', ...
```

```
'ValidationData',testAug, ...  
'ValidationFrequency',valFrequency, ...  
'Verbose',false, ...  
'Plots','training-progress')
```

**Accuracy: 0.7734**

**Test:**

Glaucoma

lm0643_g_ORIGA	0.2756	0.7244
lm0644_g_ORIGA	0.3130	0.6870
lm0645_g_ORIGA	0.4507	0.5493
lm0646_g_ORIGA	0.3634	0.6366
lm0647_g_ORIGA	0.2947	0.7053

Normali

lm0478_ORIGA	0.5284	0.4716
lm0479_ORIGA	0.1984	0.8016 T
lm0480_ORIGA	0.2945	0.7055 T
lm0481_ORIGA	0.3005	0.6995 T
lm0482_ORIGA	0.1388	0.8612 T

---