Modelli di Keras

MobileNet

Guess T1	2676	**Model Size**	16 MB		
Guess T5	3480				
Total	3923				
TOP 1	68.21%	Expected TOP 1	70.40%	-2.19%	
TOP 5	88.71%	Expected TOP 5	89.50%	-0.79%	

Inception V3

Guess T1	2983	**Model Size**	92 MB		
Guess T5	3643				
Total	3923				
TOP 1	76.04%	Expected TOP 1	77.90%	-1.86%	
TOP 5	92.86%	Expected TOP 5	93.70%	-0.84%	

ResNet152 V2

Guess T1	2699	**Model Size**	232 MB		
Guess T5	3496				
Total	3923				
TOP 1	68.80%	Expected TOP 1	78.00%	-9.20%	
TOP 5	89.12%	Expected TOP 5	94.21%	-5.09%	

ResNet50 V2

Guess T1	2567	**Model Size**	98 MB		
Guess T5	3422				
Total	3923				
TOP 1	65.43%	Expected TOP 1	76.01%	-10.58%	
TOP 5	87.23%	Expected TOP 5	92.82%	-5.59%	

Modelli di PyTorch

MobileNetV2

Guess T1	2657	**Model Size**	14 MB		
Guess T5	3487				
Total	3923				
TOP 1	67.73%	Expected TOP 1	71.88%	-4.15%	
TOP 5	88.89%	Expected TOP 5	90.27%	-1.38%	

Inception V3

Guess T1	2978	**Model Size**	104 MB		
Guess T5	3646				
Total	3923				
TOP 1	75.91%	Expected TOP 1	77.29%	-1.38%	
TOP 5	92.94%	Expected TOP 5	93.45%	-0.51%	

ResNet152

Guess T1	2950	**Model Size**	231 MB		
Guess T5	3656				
Total	3923				
TOP 1	75.20%	Expected TOP 1	78.31%	-3.11%	
TOP 5	93.19%	Expected TOP 5	94.05%	-0.85%	

AlexNet

Guess T1	2073	**Model Size**	234 MB		
Guess T5	3024				
Total	3923				
TOP 1	52.84%	Expected TOP 1	56.52%	-3.68%	
TOP 5	77.08%	Expected TOP 5	79.07%	-1.98%	

Keras VS PyTorch

Normal *	GrayScale
0.48%	
-0.18%	

Normal	GrayScale
0.13%	
-0.08%	

Normal *	GrayScale
-6.40%	
-4.08%	

ResNet50

Guess T1	2661	Model Size	98 MB	
Guess T5	3466			
Total	3923			
TOP 1	67.83%	Expected TOP 1	74.90%	-7.07%
TOP 5	88.35%	Expected TOP 5	91.20%	-2.85%

ResNet50

Guess T1	2853	Model Size	98 MB	
Guess T5	3608			
Total	3923			
TOP 1	72.72%	Expected TOP 1	76.13%	-3.41%
TOP 5	91.97%	Expected TOP 5	92.86%	-0.89%

Normal	GrayScale
-4.89%	
-3.62%	

VGG16

Guess T1	2502	Model Size	528 MB	
Guess T5	3369			
Total	3923			
TOP 1	63.78%	Expected TOP 1	71.30%	-7.52%
TOP 5	85.88%	Expected TOP 5	90.01%	-4.13%

VGG16

Guess T1	2663	Model Size	528 MB	
Guess T5	3500			
Total	3923			
TOP 1	67.88%	Expected TOP 1	71.59%	-3.71%
TOP 5	89.22%	Expected TOP 5	90.38%	-1.16%

Normal	GrayScale
-4.10%	
-3.34%	

VGG19

Guess T1	2516	Model Size	549 MB	
Guess T5	3365			
Total	3923			
TOP 1	64.13%	Expected TOP 1	71.30%	-7.17%
TOP 5	85.78%	Expected TOP 5	90.00%	-4.22%

VGG19

Guess T1	2723	Model Size	549 MB	
Guess T5	3502			
Total	3923			
TOP 1	69.41%	Expected TOP 1	72.38%	-2.96%
TOP 5	89.27%	Expected TOP 5	90.88%	-1.61%

Normal	GrayScale
-5.28%	
-3.49%	

SqueezeNet 1.1

Guess T1	2040	Model Size	5 MB	
Guess T5	3026			
Total	3923			
TOP 1	52.00%	Expected TOP 1	58.18%	-6.18%
TOP 5	77.13%	Expected TOP 5	80.62%	-3.49%

VGG19 BN

Guess T1	2773	Model Size	549 MB	
Guess T5	3581			
Total	3923			
TOP 1	70.69%	Expected TOP 1	74.22%	-3.53%
TOP 5	91.28%	Expected TOP 5	91.84%	-0.56%

TOP 1 AVG	TOP 5 AVG
-10.61%	-8.81%

MobileNet

	ImageNet Mini		
	Normal	Vs	GrayScale
Guess T1	2676		2284	Guess T1
Guess T5	3480		3220	Guess T5
Total	3923		3923	Total
TOP 1	68.21%	-9.99%	58.22%	TOP 1
TOP 5	88.71%	-6.63%	82.08%	TOP 5

Inception V3

	ImageNet Mini		
	Normal	Vs	GrayScale
Guess T1	2983		2702	Guess T1
Guess T5	3643		3486	Guess T5
Total	3923		3923	Total
TOP 1	76.04%	-7.16%	68.88%	TOP 1
TOP 5	92.86%	-4.00%	88.86%	TOP 5

ResNet50

	ImageNet Mini		
	Normal	Vs	GrayScale
Guess T1	2661		2116	Guess T1
Guess T5	3466		3089	Guess T5
Total	3923		3923	Total
TOP 1	67.83%	-13.89%	53.94%	TOP 1
TOP 5	88.35%	-9.61%	78.74%	TOP 5

ResNet152 V2

	ImageNet Mini			
	Normal	Vs	GrayScale	
Guess T1	2699		2369	Guess T1
Guess T5	3496		3264	Guess T5
Total	3923		3923	Total
TOP 1	68.80%	-8.41%	60.39%	TOP 1
TOP 5	89.12%	-5.91%	83.20%	TOP 5

VGG19

	ImageNet Mini			
	Normal	Vs	GrayScale	
Guess T1	2516		1982	Guess T1
Guess T5	3365		2934	Guess T5
Total	3923		3923	Total
TOP 1	64.13%	-13.61%	50.52%	TOP 1
TOP 5	85.78%	-10.99%	74.79%	TOP 5