

# Few-Shot Experiments (1)

Ominglot: Contains 1,623 characters from 50 alphabets each class with 20 samples.

Model	Fine Tune	5-way Acc.		20-way Acc.	
		1-shot	5-shot	1-shot	5-shot
MANN [32]	N	82.8%	94.9%	-	-
CONVOLUTIONAL SIAMESE NETS [20]	N	96.7%	98.4%	88.0%	96.5%
CONVOLUTIONAL SIAMESE NETS [20]	Y	97.3%	98.4%	88.1%	97.0%
MATCHING NETS [39]	N	98.1%	98.9%	93.8%	98.5%
MATCHING NETS [39]	Y	97.9%	98.7%	93.5%	98.7%
SIAMESE NETS WITH MEMORY [18]	N	98.4%	99.6%	95.0%	98.6%
NEURAL STATISTICIAN [8]	N	98.1%	99.5%	93.2%	98.1%
META NETS [27]	N	99.0%	-	97.0%	-
PROTOTYPICAL NETS [36]	N	98.8%	99.7%	96.0%	98.9%
MAML [10]	Y	98.7 ± 0.4%	<b>99.9 ± 0.1%</b>	95.8 ± 0.3%	98.9 ± 0.2%
<b>RELATION NET</b>	N	<b>99.6 ± 0.2%</b>	<b>99.8 ± 0.1%</b>	<b>97.6 ± 0.2%</b>	<b>99.1 ± 0.1%</b>

Table 1: Omniglot few-shot classification. Results are accuracies averaged over 1000 test episodes and with 95% confidence intervals where reported. The best-performing method is highlighted, along with others whose confidence intervals overlap. ‘-’: not reported.

# Few-Shot Experiments (2)

miniImageNet: 100 classes with 600 color images per classes.

Model	FT	5-way Acc.	
		1-shot	5-shot
<b>MATCHING NETS</b> [39]	N	43.56 $\pm$ 0.84%	55.31 $\pm$ 0.73%
<b>META NETS</b> [27]	N	49.21 $\pm$ 0.96%	-
<b>META-LEARN LSTM</b> [29]	N	43.44 $\pm$ 0.77%	60.60 $\pm$ 0.71%
<b>MAML</b> [10]	Y	48.70 $\pm$ 1.84%	63.11 $\pm$ 0.92%
<b>PROTOTYPICAL NETS</b> [36]	N	49.42 $\pm$ 0.78%	<b>68.20 <math>\pm</math> 0.66%</b>
<b>RELATION NET</b>	N	<b>50.44 <math>\pm</math> 0.82%</b>	65.32 $\pm$ 0.70%

Table 2: Few-shot classification accuracies on miniImagenet