Corruption Type	Standard (CNN)	TTA (CNN)	Standard (GMU-CNN)	TTA (GMU-CNN)
Brightness	0.2274	0.9887	0.9913	**0.9933**
Canny Edges	0.6149	0.9431	0.8998	**0.9813**
Dotted Line	0.9791	0.9873	0.9896	**0.9902**
Fog	0.1188	0.6074	0.9234	**0.9609**
Impulse Noise	0.4529	0.9098	0.9377	**0.9683**
Motion Blur	0.9675	**0.9858**	0.9614	0.9666
Shot Noise	0.9226	0.9677	0.9449	**0.9757**
Spatter	0.9834	**0.9857**	0.9759	0.9755
Zigzag	0.7826	0.8707	0.9447	**0.9608**
Average	0.67213333	0.916244	0.952078	**0.974733**

Table 1: Accuracy comparison of standard (no TTA) and Test-Time Adaptation (TTA) approaches across various corruption types on the MNIST dataset.

Corruption Type	Standard (CNN)	TTA (CNN)	Standard (GMU-CNN)	TTA (GMU-CNN)
Brightness	0.4535	0.8281	0.8250	**0.8550**
Canny Edges	0.3709	0.5322	0.7058	**0.7575**
Dotted Line	0.8786	0.8953	0.9118	**0.9161**
Fog	0.2712	0.6060	0.7442	**0.8373**
Impulse Noise	0.2056	0.6614	0.6703	**0.7837**
Motion Blur	0.7188	**0.7865**	0.6831	0.7830
Shot Noise	0.5959	**0.7059**	0.4896	0.6870
Spatter	0.8835	0.8902	0.8868	**0.8908**
Zigzag	0.8131	0.8606	0.8806	**0.8941**
Average	0.6159	0.7518	0.7558	**0.8227**

Table 2: Accuracy comparison of standard (no TTA) and Test-Time Adaptation (TTA) approaches across various corruption types on the Fashion-MNIST dataset.

Corruption Type	Standard (VGG)	TTA (VGG)	Standard (GMU(3))	TTA (GMU(3))	Standard (GMU(8))	TTA (GMU(8))
Brightness	0.83642	0.82376	0.8540	0.85266	0.86188	**0.86362**
Contrast	0.5952	0.74014	0.7489	0.8016	0.75478	**0.81086**
Defocus Blur	0.68148	0.79334	0.7811	0.82878	0.7977	**0.83792**
Elastic Transform	0.71436	0.74232	0.7493	0.7808	0.7534	**0.78318**
Fog	0.74422	0.77798	0.8176	0.8283	0.8311	**0.8393**
Frost	0.7386	0.7386	0.7410	0.77508	0.7620	**0.78332**
Gaussian Blur	0.5929	0.77528	0.7410	0.81844	0.7620	**0.82662**
Impulse Noise	0.59338	0.65226	0.6003	**0.75382**	0.5608	0.73398
Motion Blur	0.6211	0.74056	0.7142	0.79238	0.7325	**0.79896**
Pixelate	0.6826	0.7591	0.7192	0.80666	0.7273	**0.81328**
Saturate	0.8147	0.81246	0.8211	0.8283	0.8298	**0.83882**
Shot Noise	0.6366	0.72318	0.6372	**0.77136**	0.6163	0.76632
Spatter	0.7440	0.73732	0.7861	0.79432	0.7874	**0.7989**
Average	0.691966	0.7551	0.747	0.8025	0.752074	**0.807314**

Table 3: Accuracy comparison of standard (no TTA) and Test-Time Adaptation (TTA) approaches across various corruption types on the CIFAR-10 dataset.