

Table 2: Evaluation of Wasserstein-Filtered Data Augmentation on ISIC 2018 Dataset. Baseline: original samples (averaged across tasks); Augmented: unfiltered generated data; Wass: Wasserstein-filtered data, retaining the top 60% of images.

Gen	Model	Acc	Prec	Rec	F1	Gen	Model	Acc	Prec	Rec	F1
3	Augmented	60.00	58.73	60.00	57.79	18	Augmented	48.57	61.77	48.57	47.52
	Wass	62.86	63.48	62.86	61.07		Wass	58.57	57.51	58.57	57.38
6	Augmented	45.71	45.69	45.71	44.48	21	Augmented	47.14	51.16	47.14	47.73
	Wass	57.14	63.81	57.14	56.76		Wass	64.29	65.19	64.29	63.63
9	Augmented	50.00	52.90	50.00	50.10	24	Augmented	55.71	52.91	55.71	51.67
	Wass	55.71	59.18	55.71	53.73		Wass	64.29	65.37	64.29	63.91
Baseline (Avg.)		52.32	56.64	52.32	51.88						

(Response 2,4 to 9i7B, Response W8 to ndn7,Response 6 to FqDa,Response 9 to aTs1)

Performance metrics (%) on a 7-class skin cancer image dataset (ISIC 2018) [1] with 1,257 original training samples and varying numbers of generated images (Gen) from SD-XL, mixed at **strength=0.15** and **strength=0.8** (default: 0.75). Higher strength increases diversity but introduces suboptimal samples, requiring Wass filtering. Wass consistently enhances performance over the baseline.

[1] *Skin Cancer Classification Using Convolutional Neural Networks: Systematic Review*