

Table 7.9: Results of the salience version of the data augmentation evaluation when unifying the training sets. The images were generated considering a random saliency distance between the image generated by the GAN and the lesion image from the dataset. The lesions are placed in a random lung side from the original image from the dataset. p stands for probability. The values highlighted in green show the data augmentation techniques in which the P-value achieved values lower than 0.05, and thus the null hypothesis was rejected (i.e., there is a statistical difference and the results achieved are better than without data augmentation).

p	Augmentation	CC-CCII		MedSeg		MosMed		Ricord1a		Zenodo	
		F-score	IoU	F-score	IoU	F-score	IoU	F-score	IoU	F-score	IoU
	No Augmentation	0.8636	0.8087	0.8881	0.8253	0.8185	0.7547	0.8599	0.7947	0.9096	0.8514
0.05	Stargan	0.8635	0.8084	0.8884	0.8256	0.8224	0.7592	0.8622	0.7974	0.9102	0.8519
	Stylegan	0.8620	0.8060	0.8882	0.8255	0.8223	0.7578	0.8579	0.7922	0.9090	0.8507
0.1	Stargan	0.8666	0.8102	0.8906	0.8284	0.8205	0.7566	0.8655	0.8013	0.9093	0.8511
	Stylegan	0.8626	0.8067	0.8869	0.8241	0.8214	0.7572	0.8605	0.7955	0.9093	0.8512
0.15	Stargan	0.8662	0.8109	0.8881	0.8258	0.8184	0.7550	0.8626	0.7980	0.9107	0.8525
	Stylegan	0.8663	0.8102	0.8909	0.8282	0.8242	0.7606	0.8683	0.8051	0.9103	0.8520
0.2	Stargan	0.8628	0.8067	0.8904	0.8283	0.8308	0.7670	0.8724	0.8094	0.9123	0.8548
	Stylegan	0.8671	0.8121	0.8907	0.8281	0.8250	0.7612	0.8732	0.8105	0.9113	0.8535
0.25	Stargan	0.8692	0.8129	0.8892	0.8269	0.8281	0.7649	0.8760	0.8139	0.9114	0.8539
	Stylegan	0.8646	0.8082	0.8888	0.8260	0.8236	0.7615	0.8754	0.8131	0.9115	0.8541
0.3	Stargan	0.8655	0.8098	0.8909	0.8283	0.8269	0.7637	0.8754	0.8133	0.9119	0.8548
	Stylegan	0.8642	0.8086	0.8902	0.8278	0.8270	0.7637	0.8764	0.8146	0.9112	0.8535
0.35	Stargan	0.8636	0.8087	0.8916	0.8293	0.8303	0.7672	0.8792	0.8178	0.9136	0.8566
	Stylegan	0.8659	0.8094	0.8901	0.8274	0.8260	0.7633	0.8752	0.8129	0.9122	0.8548
0.4	Stargan	0.8644	0.8090	0.8911	0.8284	0.8292	0.7648	0.8764	0.8143	0.9125	0.8553
	Stylegan	0.8638	0.8088	0.8916	0.8296	0.8266	0.7634	0.8761	0.8142	0.9117	0.8543
0.45	Stargan	0.8640	0.8077	0.8914	0.8297	0.8292	0.7652	0.8787	0.8170	0.9132	0.8562
	Stylegan	0.8685	0.8131	0.8915	0.8288	0.8293	0.7660	0.8768	0.8150	0.9120	0.8547
0.5	Stargan	0.8674	0.8126	0.8902	0.8276	0.8288	0.7651	0.8767	0.8147	0.9121	0.8548
	Stylegan	0.8669	0.8117	0.8909	0.8287	0.8240	0.7610	0.8756	0.8136	0.9122	0.8549