

Table 7.7: Results of the saliency version of the data augmentation evaluation when unifying the training sets. The images were generated considering the maximum 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	0.8629	0.8070	0.8864	0.8235	0.8216	0.7575	0.8594	0.7942	0.9098	0.8516
	Stylegan	0.8645	0.8090	0.8873	0.8241	0.8173	0.7536	0.8603	0.7956	0.9096	0.8514
0.1	Stargan	0.8648	0.8089	0.8863	0.8235	0.8177	0.7546	0.8616	0.7969	0.9107	0.8526
	Stylegan	0.8624	0.8073	0.8870	0.8242	0.8233	0.7595	0.8626	0.7982	0.9090	0.8506
0.15	Stargan	0.8654	0.8104	0.8882	0.8253	0.8233	0.7604	0.8669	0.8030	0.9100	0.8521
	Stylegan	0.8642	0.8080	0.8875	0.8244	0.8192	0.7558	0.8619	0.7973	0.9097	0.8512
0.2	Stargan	0.8638	0.8087	0.8885	0.8257	0.8235	0.7603	0.8686	0.8046	0.9099	0.8517
	Stylegan	0.8655	0.8087	0.8893	0.8263	0.8211	0.7579	0.8625	0.7982	0.9093	0.8511
0.25	Stargan	0.8651	0.8097	0.8874	0.8245	0.8278	0.7638	0.8726	0.8098	0.9111	0.8533
	Stylegan	0.8656	0.8093	0.8903	0.8278	0.8278	0.7626	0.8698	0.8067	0.9114	0.8536
0.3	Stargan	0.8639	0.8088	0.8907	0.8285	0.8275	0.7642	0.8732	0.8107	0.9113	0.8535
	Stylegan	0.8650	0.8094	0.8897	0.8265	0.8236	0.7599	0.8712	0.8083	0.9115	0.8537
0.35	Stargan	0.8647	0.8095	0.8905	0.8280	0.8249	0.7613	0.8701	0.8069	0.9105	0.8526
	Stylegan	0.8628	0.8077	0.8898	0.8269	0.8213	0.7582	0.8704	0.8073	0.9116	0.8539
0.4	Stargan	0.8641	0.8084	0.8900	0.8280	0.8243	0.7609	0.8717	0.8088	0.9108	0.8532
	Stylegan	0.8625	0.8068	0.8890	0.8261	0.8235	0.7606	0.8685	0.8049	0.9110	0.8532
0.45	Stargan	0.8640	0.8089	0.8913	0.8288	0.8256	0.7623	0.8712	0.8082	0.9114	0.8536
	Stylegan	0.8643	0.8080	0.8912	0.8287	0.8280	0.7649	0.8716	0.8085	0.9115	0.8536
0.5	Stargan	0.8624	0.8069	0.8911	0.8290	0.8236	0.7606	0.8715	0.8085	0.9116	0.8542
	Stylegan	0.8647	0.8090	0.8920	0.8293	0.8239	0.7600	0.8680	0.8043	0.9098	0.8520