

**Table 1.** Additional results on Fitzpatrick 17k using VGG-11. Please refer to the main paper for more details.

Method	Skin Tone	Accuracy			Fairness		
		Precision	Recall	F1-Score	EOpp0 ↓	EOpp1 ↓	EOdd ↓
AdvConf [1]	Light	0.427	0.464	0.426			
	Dark	0.506	0.562	0.506			
	Avg. ↑	0.467	0.513	0.466	0.0011	0.339	0.169
	Diff. ↓	0.079	0.098	0.080			
AdvRev [22]	Light	0.489	0.469	0.457			
	Dark	0.514	0.545	0.503			
	Avg. ↑	0.502	0.507	0.480	0.0011	0.334	0.166
	Diff. ↓	0.025	0.076	0.046			
HSIC [14]	Light	0.513	0.506	0.486			
	Dark	0.548	0.522	0.513			
	Avg. ↑	0.530	0.515	0.500	0.0013	0.331	0.166
	Diff. ↓	0.040	0.018	0.029			
DomainIndep [20]	Light	0.541	0.529	0.512			
	Dark	0.559	0.540	0.530			
	Avg. ↑	0.550	0.534	0.521	0.0012	0.323	0.161
	Diff. ↓	0.018	0.010	0.018			

**Table 2.** Additional results on ISIC 2019 using ResNet18. Please refer to the main paper for more details.

Method	Sex	Accuracy			Fairness		
		Precision	Recall	F1-Score	EOpp0 ↓	EOpp1 ↓	EOdd ↓
AdvConf [1]	Female	0.755	0.738	0.741			
	Male	0.710	0.757	0.731			
	Avg. ↑	0.733	0.747	0.736	0.008	0.070	0.037
	Diff. ↓	0.045	0.020	0.010			
AdvRev [22]	Female	0.778	0.683	0.716			
	Male	0.773	0.706	0.729			
	Avg. ↑	0.775	0.694	0.723	0.007	0.059	0.033
	Diff. ↓	0.006	0.023	0.014			
HSIC [14]	Female	0.744	0.660	0.696			
	Male	0.718	0.697	0.705			
	Avg. ↑	0.731	0.679	0.700	0.008	0.042	0.020
	Diff. ↓	0.026	0.037	0.009			
DomainIndep [20]	Female	0.729	0.747	0.734			
	Male	0.725	0.694	0.702			
	Avg. ↑	0.727	0.721	0.718	0.010	0.086	0.042
	Diff. ↓	0.004	0.053	0.031			