

Table 5. Per-group results (accuracy, recall, precision and approval-rate disaggregated by groups A and B) for the online pipeline.

Variant	A Acc. (†)	B Acc. (†)	A Rec. (†)	B Rec. (†)	A Prec. (†)	B Prec. (†)	A AppRate (†)	B AppRate (†)
rep = 0.5 lbl = 0.0 A support = 3128 B support = 2923								
none	0.814	<u>0.775</u>	0.939	<u>0.801</u>	0.794	<u>0.444</u>	0.724	0.338
reweight_auto	0.793	0.755	0.856	0.732	0.815	0.413	0.643	0.332
reweight_manual_A0.5_B1.5	<u>0.802</u>	0.778	<u>0.886</u>	0.816	<u>0.809</u>	0.449	<u>0.669</u>	<u>0.340</u>
mitigator_demographic_parity	0.495	0.667	0.354	0.394	0.663	0.252	0.327	0.294
mitigator_equalized_odds	0.573	0.665	0.541	0.524	0.694	0.286	0.477	0.344
rep = 0.5 lbl = 0.4 A support = 3118 B support = 2986								
none	0.833	0.784	<u>0.898</u>	0.636	0.868	<u>0.181</u>	<u>0.724</u>	0.234
reweight_auto	0.802	0.728	0.941	0.768	0.807	0.166	0.815	<u>0.307</u>
reweight_manual_A0.5_B1.5	<u>0.803</u>	0.777	0.865	<u>0.672</u>	<u>0.855</u>	0.181	0.707	0.246
mitigator_demographic_parity	0.418	<u>0.777</u>	0.245	0.354	0.758	0.115	0.226	0.203
mitigator_equalized_odds	0.607	0.683	0.620	0.571	0.773	0.116	0.561	0.327
rep = 0.5 lbl = 0.5 A support = 3167 B support = 2933								
none	0.752	0.779	0.844	0.646	0.816	0.162	0.741	0.238
reweight_auto	<u>0.773</u>	0.738	<u>0.843</u>	0.760	<u>0.840</u>	<u>0.155</u>	<u>0.720</u>	0.293
reweight_manual_A0.5_B1.5	0.777	<u>0.748</u>	0.838	0.651	0.849	0.144	0.708	0.270
mitigator_demographic_parity	0.456	0.649	0.356	0.434	0.757	0.076	0.337	<u>0.343</u>
mitigator_equalized_odds	0.646	0.588	0.702	<u>0.669</u>	0.783	0.092	0.643	0.432
rep = 0.5 lbl = 0.6 A support = 3046 B support = 3025								
none	0.785	<u>0.761</u>	0.835	0.427	<u>0.863</u>	0.100	0.701	0.231
reweight_auto	0.831	0.753	<u>0.894</u>	0.500	0.875	<u>0.110</u>	<u>0.740</u>	0.247
reweight_manual_A0.5_B1.5	<u>0.824</u>	0.739	0.917	0.555	0.851	0.113	0.781	<u>0.267</u>
mitigator_demographic_parity	0.378	0.786	0.205	0.226	0.760	0.066	0.195	0.184
mitigator_equalized_odds	0.633	0.574	0.695	<u>0.537</u>	0.775	0.068	0.649	0.430
rep = 0.6 lbl = 0.0 A support = 3781 B support = 2346								
none	0.777	<u>0.758</u>	<u>0.873</u>	0.734	0.775	0.412	0.661	0.329
reweight_auto	<u>0.796</u>	0.756	0.859	0.889	0.807	<u>0.423</u>	0.625	0.388
reweight_manual_A0.5_B1.5	0.796	0.776	0.886	<u>0.831</u>	<u>0.792</u>	0.443	<u>0.656</u>	<u>0.347</u>
mitigator_demographic_parity	0.540	0.694	0.394	0.358	0.689	0.261	0.336	0.254
mitigator_equalized_odds	0.583	0.709	0.542	0.473	0.683	0.311	0.466	0.281
rep = 0.6 lbl = 0.4 A support = 3818 B support = 2349								
none	<u>0.811</u>	<u>0.744</u>	<u>0.897</u>	0.667	0.847	0.182	0.757	0.281
reweight_auto	0.775	0.750	0.883	0.761	0.817	0.201	<u>0.773</u>	0.290
reweight_manual_A0.5_B1.5	0.822	0.738	0.922	0.717	<u>0.844</u>	<u>0.186</u>	0.781	0.295
mitigator_demographic_parity	0.633	0.444	0.736	<u>0.744</u>	0.746	0.096	0.705	0.593
mitigator_equalized_odds	0.660	0.573	0.749	0.700	0.769	0.117	0.697	<u>0.458</u>
rep = 0.6 lbl = 0.5 A support = 3830 B support = 2351								
none	0.824	<u>0.726</u>	0.903	0.639	0.854	<u>0.115</u>	0.742	0.289
reweight_auto	<u>0.825</u>	0.684	<u>0.914</u>	0.705	0.848	0.109	<u>0.756</u>	0.337
reweight_manual_A0.5_B1.5	0.834	0.728	0.929	<u>0.672</u>	<u>0.849</u>	0.120	0.769	0.290
mitigator_demographic_parity	0.537	0.531	0.548	0.574	0.725	0.062	0.531	<u>0.476</u>
mitigator_equalized_odds	0.653	0.524	0.762	0.664	0.749	0.070	0.714	0.493
rep = 0.6 lbl = 0.6 A support = 3798 B support = 2319								
none	<u>0.826</u>	0.737	<u>0.908</u>	0.500	0.861	0.092	0.771	0.263
reweight_auto	0.808	0.694	0.860	0.455	0.875	0.073	0.719	0.302
reweight_manual_A0.5_B1.5	0.831	<u>0.698</u>	0.910	0.509	<u>0.866</u>	<u>0.081</u>	<u>0.768</u>	0.303
mitigator_demographic_parity	0.626	0.457	0.702	<u>0.714</u>	0.767	0.061	0.669	0.564
mitigator_equalized_odds	0.697	0.490	0.815	0.812	0.780	0.073	0.764	<u>0.540</u>
rep = 0.7 lbl = 0.0 A support = 4374 B support = 1721								
none	0.807	<u>0.749</u>	0.923	0.782	0.790	<u>0.414</u>	0.697	0.358
reweight_auto	0.823	0.744	0.897	<u>0.794</u>	0.822	0.409	0.650	0.368
reweight_manual_A0.5_B1.5	<u>0.812</u>	0.770	<u>0.921</u>	0.801	<u>0.796</u>	0.441	<u>0.690</u>	0.344
mitigator_demographic_parity	0.594	0.641	0.607	0.660	0.679	0.298	0.534	<u>0.419</u>
mitigator_equalized_odds	0.637	0.622	0.752	0.715	0.676	0.295	0.664	0.460
rep = 0.7 lbl = 0.4 A support = 4403 B support = 1792								
none	<u>0.785</u>	<u>0.757</u>	0.839	0.556	0.853	<u>0.188</u>	0.692	0.252
reweight_auto	0.782	0.810	<u>0.895</u>	0.765	0.814	0.277	0.773	0.235
reweight_manual_A0.5_B1.5	0.831	0.688	0.937	0.745	<u>0.841</u>	0.180	<u>0.785</u>	0.354
mitigator_demographic_parity	0.654	0.472	0.761	<u>0.797</u>	0.751	0.118	0.714	<u>0.579</u>
mitigator_equalized_odds	0.666	0.467	0.826	0.810	0.734	0.118	0.792	0.586
rep = 0.7 lbl = 0.5 A support = 4486 B support = 1745								
none	<u>0.821</u>	0.720	0.903	0.546	<u>0.855</u>	<u>0.118</u>	0.754	0.285
reweight_auto	0.819	0.653	0.924	0.759	0.839	0.124	0.786	0.379
reweight_manual_A0.5_B1.5	0.822	<u>0.682</u>	0.895	0.583	0.861	0.110	0.742	0.328
mitigator_demographic_parity	0.675	0.359	0.821	<u>0.843</u>	0.748	0.076	0.783	0.684
mitigator_equalized_odds	0.714	0.379	<u>0.904</u>	0.861	0.748	0.080	<u>0.862</u>	<u>0.665</u>
rep = 0.7 lbl = 0.6 A support = 4553 B support = 1703								
none	<u>0.847</u>	0.739	<u>0.929</u>	0.515	<u>0.866</u>	0.112	0.766	0.263
reweight_auto	0.840	<u>0.726</u>	0.908	0.639	0.873	0.126	0.743	0.289
reweight_manual_A0.5_B1.5	0.848	0.713	0.934	0.629	0.864	<u>0.119</u>	<u>0.772</u>	0.301
mitigator_demographic_parity	0.685	0.396	0.829	<u>0.753</u>	0.754	0.068	0.785	0.633
mitigator_equalized_odds	0.721	0.406	0.907	0.856	0.753	0.077	0.860	<u>0.635</u>
rep = 0.8 lbl = 0.0 A support = 5040 B support = 1186								
none	<u>0.810</u>	0.777	0.917	0.767	<u>0.796</u>	0.451	0.689	0.325
reweight_auto	0.823	<u>0.768</u>	0.942	0.872	0.799	<u>0.446</u>	<u>0.706</u>	0.374
reweight_manual_A0.5_B1.5	0.788	0.746	<u>0.922</u>	<u>0.841</u>	0.769	0.419	0.717	0.384
mitigator_demographic_parity	0.624	0.625	0.690	0.727	0.684	0.301	0.604	<u>0.462</u>
mitigator_equalized_odds	0.636	0.603	0.754	0.727	0.675	0.287	0.668	0.484
rep = 0.8 lbl = 0.4 A support = 5100 B support = 1151								
none	0.845	<u>0.761</u>	0.936	0.605	<u>0.856</u>	<u>0.177</u>	0.767	0.255
reweight_auto	0.827	0.744	0.899	0.640	0.861	0.172	0.733	0.277
reweight_manual_A0.5_B1.5	<u>0.827</u>	0.780	0.945	0.663	0.842	0.203	0.788	0.244
mitigator_demographic_parity	0.716	0.411	0.890	0.930	0.752	0.106	0.830	0.653
mitigator_equalized_odds	0.731	0.424	0.947	<u>0.977</u>	0.741	0.113	0.896	<u>0.647</u>
rep = 0.8 lbl = 0.5 A support = 5027 B support = 1178								
none	<u>0.831</u>	<u>0.669</u>	0.946	0.673	0.839	0.081	<u>0.805</u>	0.346
reweight_auto	0.821	0.650	0.902	0.510	0.855	0.061	0.753	0.351
reweight_manual_A0.5_B1.5	0.835	0.718	<u>0.929</u>	0.551	<u>0.853</u>	<u>0.080</u>	0.777	0.286
mitigator_demographic_parity	0.702	0.441	0.849	<u>0.714</u>	0.761	0.052	0.796	<u>0.576</u>
mitigator_equalized_odds	0.724	0.432	0.892	0.776	0.762	0.055	0.835	0.591
rep = 0.8 lbl = 0.6 A support = 5078 B support = 1112								
none	<u>0.831</u>	0.729	0.922	0.527	<u>0.858</u>	0.095	0.787	0.273
reweight_auto	0.847	<u>0.725</u>	0.925	0.527	0.874	<u>0.094</u>	0.776	0.278
reweight_manual_A0.5_B1.5	0.830	0.657	<u>0.935</u>	0.618	0.849	0.086	0.807	0.354
mitigator_demographic_parity	0.753	0.294	<u>0.949</u>	<u>0.891</u>	0.768	0.059	<u>0.905</u>	0.745
mitigator_equalized_odds	0.752	0.301	0.959	0.927	0.763	0.062	0.920	<u>0.741</u>