Replication

To reproduce the data in 'raw data.csv', set 'dataset_path' in 'Baseline.py' to './dataset/processed_adult.csv', and set 'model_path' to './DNN/model_processed_adult.h5'. Set `target_column` to `'Class-label'`.

When studying different sensitive features, assign the desired feature to `sensitive_features`. Run the code 30 times for each sensitive feature to reduce randomness and variance.

When running on the COMPAS dataset using 'tabu_search.py', the process is similar to the one described above. The difference is that due to time constraints, 'tabu_search.py' is only run 10 times for each sensitive feature.

Adult						COMPAS			
gender		race		age		race		sex	
0.069	0.74	0.075	0.393	0.351	0.367	0.023	0.44	0.027	0.74
0.06	0.74	0.073	0.41	0.408	0.362	0.032	0.395	0.027	0.683
0.067	0.721	0.089	0.375	0.35	0.35	0.025	0.472	0.026	0.772
0.068	0.684	0.079	0.429	0.374	0.392	0.027	0.458	0.031	0.761
0.069	0.8	0.069	0.35	0.367	0.36	0.028	0.429	0.028	0.755
0.067	0.615	0.082	0.255	0.369	0.22	0.026	0.486	0.03	0.701
0.07	0.829	0.077	0.52	0.365	0.405	0.029	0.409	0.026	0.796
0.066	0.675	0.078	0.388	0.37	0.375	0.031	0.451	0.029	0.715
0.068	0.847	0.076	0.466	0.368	0.35	0.03	0.377	0.027	0.668
0.069	0.699	0.08	0.533	0.366	0.511	0.024	0.467	0.032	0.782
0.067		0.074		0.372		0.033		0.028	
0.068		0.081		0.367		0.025		0.03	
0.069		0.077		0.369		0.027		0.029	
0.066		0.079		0.365		0.02		0.026	
0.068		0.075		0.37		0.029		0.031	
0.069		0.078		0.368		0.028		0.034	
0.067		0.076		0.366		0.03		0.025	
0.068		0.08		0.372		0.026		0.027	
0.069		0.074		0.367		0.032		0.029	
0.067		0.081		0.369		0.027		0.031	
0.068		0.077		0.365		0.025		0.028	
0.069		0.079		0.37		0.028		0.03	
0.067		0.075		0.368		0.03		0.027	
0.068		0.078		0.366		0.031		0.032	
0.069		0.076		0.372		0.023		0.028	
0.071		0.082		0.367		0.029		0.026	
0.068		0.077		0.369		0.027		0.029	
0.069		0.079		0.365		0.034		0.031	
0.067		0.075		0.37		0.025		0.027	
0.068		0.078		0.368		0.028		0.03	