

Table 1:

Models	Micro-precision	Micro-recall	Micro-F1	Macro-precision	Macro-recall	Macro-F1	Accuracy
Model 1	0.7828045 035823951	0.7828045 035823951	0.7828045 035823951	0.7226636 779676847	0.7780345 212893858	0.7411993 558485341	0.7828045 035823951
Model 2	0.7819856 70419652	0.7819856 70419652	0.7819856 70419652	0.7192766 817318474	0.7648492 756557022	0.7327928 816057558	0.7819856 70419652
Model 3	0.7895167 895167895	0.7895167 895167895	0.7895167 895167895	0.7196381 1711244	0.7721400 462202688	0.7350758 719816628	0.7895167 895167895
Model 4	0.7850122 85012285	0.7850122 85012285	0.7850122 85012285	0.7213623 02739398	0.7637372 58225078	0.7347516 600650268	0.7850122 85012285
Model 5	0.7944307 944307945	0.7944307 944307945	0.7944307 944307945	0.7307155 168773537	0.7772691 749469689	0.7453597 497393118	0.7944307 944307945
Model 6	0.7813267 813267813	0.7813267 813267813	0.7813267 813267813	0.7217945 782375231	0.7697124 112232874	0.7352229 024022929	0.7813267 813267813
Model 7	0.7876740 376740377	0.7876740 376740377	0.7876740 376740377	0.7240440 95430916	0.7788433 423301844	0.7390075 79007579	0.7876740 376740377
Model 8	0.7821457 821457821	0.7821457 821457821	0.7821457 821457821	0.7253778 633573973	0.7797652 641457851	0.7389869 839461638	0.7821457 821457821
Model 9	0.7923832 923832924	0.7923832 923832924	0.7923832 923832924	0.7257812 56580504	0.7780345 212893858	0.7411993 558485341	0.7923832 923832924
Model 10	0.7954545 454545454	0.7954545 454545454	0.7954545 454545454	0.7402638 43661039	0.7846972 30480363	0.7539953 62678298	0.7954545 454545454
Average	0.7872734 481946355	0.7872734 481946355	0.7872734 481946355	0.7250917 933696104	0.7742179 526030205	0.7392880 942658174	0.7872734 481946355

Table 2:

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.796	0.145	0.633	0.796	0.705	0.605	0.918	0.798	>50K
	0.855	0.204	0.930	0.855	0.891	0.605	0.918	0.972	<=50K
Weighted Avg.	0.841	0.190	0.859	0.841	0.846	0.605	0.918	0.931	

Analysis:

- My classifier provides decent results, with most samples being classified correctly. However, macro measures are significantly lower than micro measures. This shows that the classifier is much better at classifying one class than the other. Also, macro-precision is much lower than macro-recall, showing that many classes were classified as the majority class that were part of the minority class.

Notes:

- For table 1, the Micro measures and accuracy are all the same because when there are only two classes, the True Positive of one is the True Negative of the other, and the same is true of True Negative, False Positive, and False Negative. Therefore, the micro measures all end up having the same calculation as accuracy, which is  $(TP+TN)/(TP+TN+FP+FN)$