

Topic: Logistic Regression with Bagging and Stacking

Name: Nafiul Islam

Id: 1905100

Course: CSE472

Lab Group: B2

Setup

Use google colab and upload the dataset to run the code

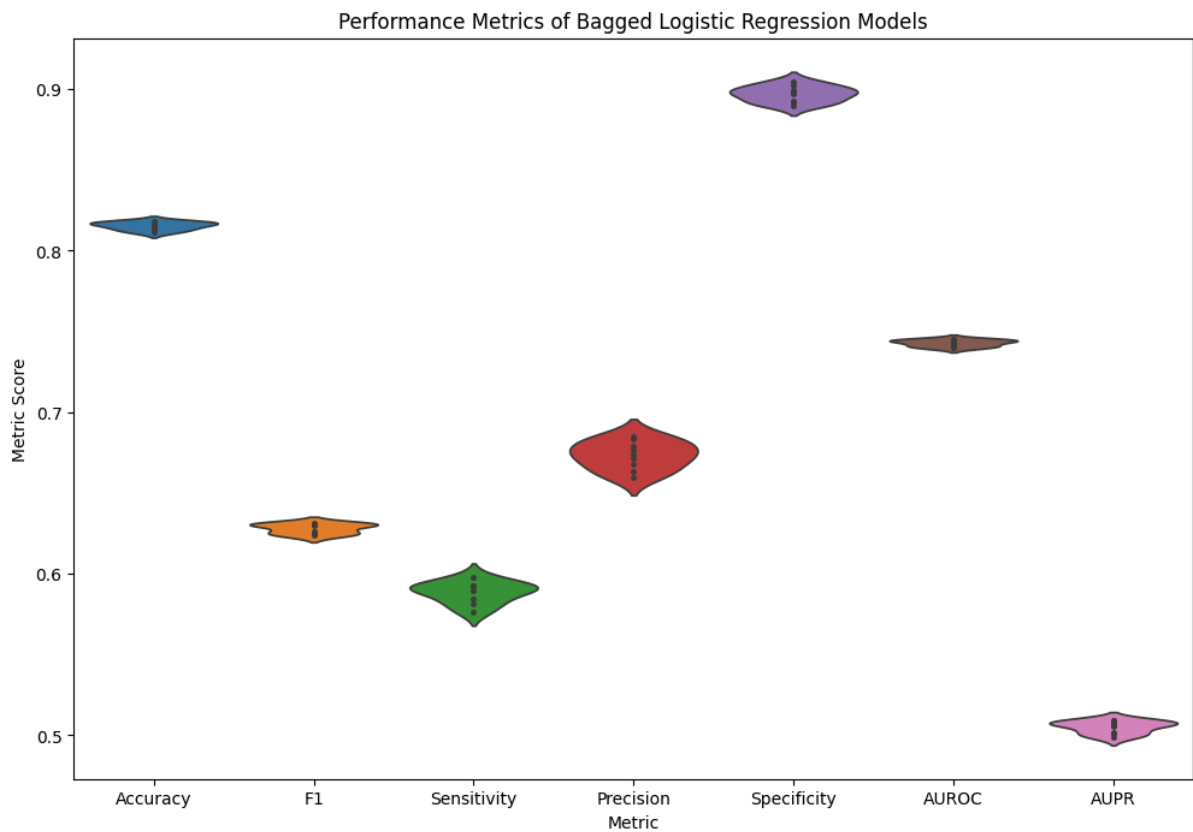
Generated Tables & Plots:

First Dataset (Telco):

Table

	Model	Accuracy	Sensitivity	Specificity	Precision	F1-score	AUROC	AUPR
0	LR (Bagging)	0.8152 ± 0.0042	0.5895 ± 0.0161	0.8964 ± 0.0098	0.6727 ± 0.0159	0.6280 ± 0.0062	0.7430 ± 0.0046	0.5050 ± 0.0063
1	Voting Ensemble	0.8197	0.6831	0.5952	0.6361	0.9006	0.7479	0.5137
2	Stacking Ensemble	0.8226	0.6086	0.8996	0.6858	0.6449	0.7541	0.5210

Plot



Second Dataset (Adult): Table

	Model	Accuracy	Sensitivity	Specificity	Precision	F1-score	AUROC	AUPR
0	LR (Bagging)	0.8518 ± 0.0007	0.9315 ± 0.0012	0.6078 ± 0.0055	0.8791 ± 0.0014	0.9045 ± 0.0003	0.7697 ± 0.0022	0.8705 ± 0.0012
1	Voting Ensemble	0.8516	0.8791	0.9311	0.9044	0.6082	0.7697	0.8705
2	Stacking Ensemble	0.8523	0.9362	0.5958	0.8763	0.9053	0.7660	0.8685

Plot

