The hyperparameters of our model are as follows:

{'objective': 'binary:logistic', 'base\_score': 0.5, 'booster': 'gbtree', 'colsample\_bylevel': 1, 'colsample\_bynode': 1, 'colsample\_bytree': 1, 'gamma': 0, 'gpu\_id': -1, 'importance\_type': 'gain', 'interaction\_constraints': '', 'learning\_rate': 0.3, 'max\_delta\_step': 0, 'max\_depth': 8, 'min\_child\_weight': 2, 'missing': nan, 'monotone\_constraints': (), 'n\_estimators': 20, 'n\_jobs': 0, 'num\_parallel\_tree': 1, 'random\_state': 0, 'reg\_alpha': 0, 'reg\_lambda': 0.5, 'scale\_pos\_weight': 1, 'subsample': 1, 'tree\_method': 'exact', 'validate\_parameters': 1, 'verbosity': 0}