XGBoost:

* Tune max\_depth, eta, subsample, colsample\_bytree with 5-fold cross validations.
* The accuracy on the test data is 0.796 (95% CI: 0.673, 0.898).

BART:

* Tune the number of trees and the prior distribution of E[Y|X].
* The accuracy on the test data is 0.796 (95% CI: 0.673, 0.898).

Questions:

* The objective of hyperparameter tuning is to maximize the prediction accuracy. Should we use AUC instead?
* Still working on the missing data problem for random forest, conditional random forest, and DART.