

Dataset: bank-tr.csv

Experiment: exp_05

MLPClassifier(max_iter=5000, random_state=0)

MLP experiment best results:

Experiment best score (accuracy): 0.825600

MLP cross validation scores:

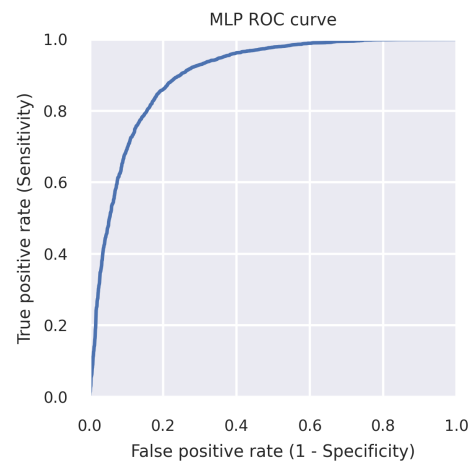
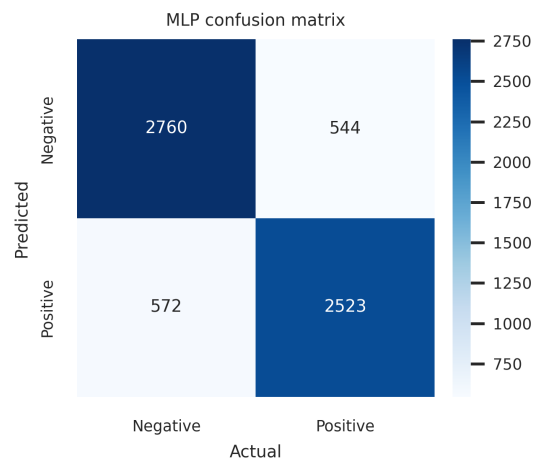
Accuracy: 0.825600

Precision: 0.822557

Recall: 0.815186

F1: 0.818819

AUC: 0.901888

MLP confusion matrix & ROC curve:**Best classifier:**

MLPClassifier(max_iter=5000, random_state=0)

Best hyperparameters:

activation: tanh

alpha: 0.05

hidden_layer_sizes: (10,)

learning_rate: constant

max_iter: 10000

solver: adam

Grid search hyperparameters:

hidden_layer_sizes: [(10,)]

activation: ['tanh']

solver: ['adam']

alpha: [0.05]

learning_rate: ['constant']

max_iter: [10000]

Dataset: bank-tr.csv

Experiment: exp_05

MLPClassifier(max_iter=5000, random_state=0)

Experiment parameters:

n_splits: 5

scoring: accuracy

target: made_deposit

categorical columns:

last_contact_month

poutcome

feature selection:

accountID: False

town: False

country: False

age: False

job: False

married: False

education: False

defaulted?: False

current_balance: False

housing: False

has_loan: False

last_contact: False

cc_tr: False

last_contact_day: True

last_contact_month: True

last_contact_duration_s: True

campaign: True

days_since_last_contact: True

previous: True

poutcome: True

made_deposit: True