Dataset: bank-tr.csv
Experiment: exp_06

MLPClassifier(max_iter=5000, random_state=0)

MLP experiment best results:

Experiment best score (accuracy): 0.683077

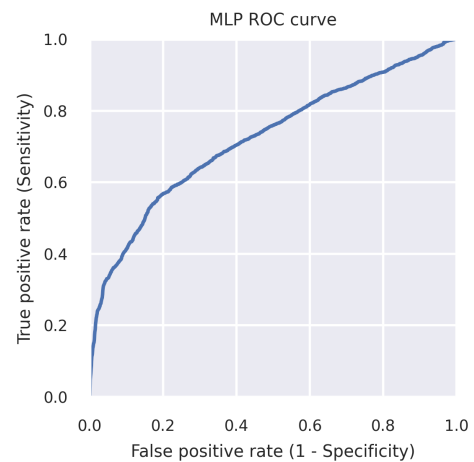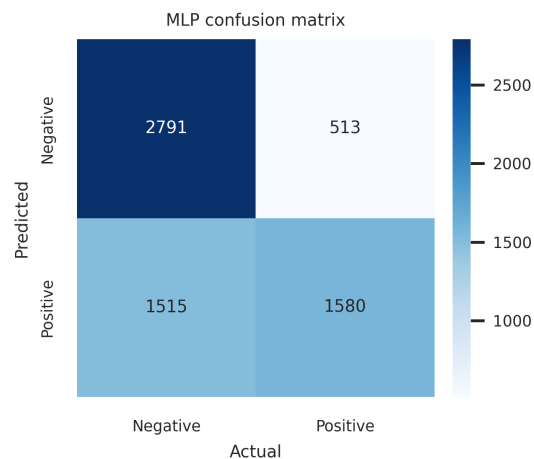**MLP cross validation scores:**

Accuracy: 0.683077
Precision: 0.755660
Recall: 0.510501
F1: 0.608312
AUC: 0.724684

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_06

<u>MLPClassifier(max_iter=5000, random_state=0)</u>

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: False
    campaign: True
    days_since_last_contact: True
    previous: True
    poutcome: True
    made_deposit: True