2.2769536396899803

Use whole brand

pred = logistic\_reg(dtrain\_X,dtrain\_y,dtest\_X, C=0.019)

log validation -> 2.2820224548209187

log test -> 2.27349 2.27119

Use top10 brand

pred = logistic\_reg(dtrain\_X,dtrain\_y,dtest\_X, C=0.019)

log Validation -> 2.2829285726670925

log Test -> 2.27453 2.27208

Xgb validation -> 2.3462112432259534

Xgb test