Model Evaluation

Model: Artificial Neural Network

Number of inputs: 213

Number of hidden layers (units): 1(100)

Number of outputs: 1(binary)

Training set sample: 3185

Testing set sample: 7429

Training Metrics: accuracy

Test Metrics: precision, recall, f1-score, ROC curve and AUC.
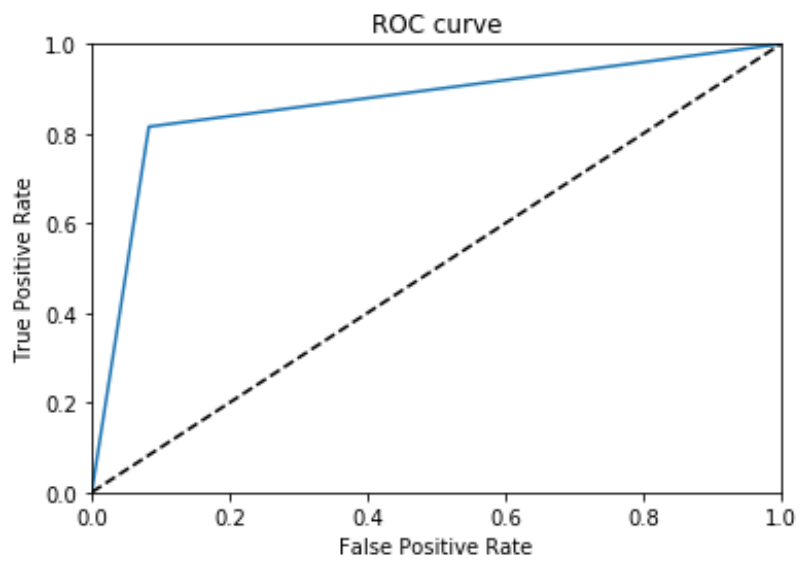
Training accuracy

Accuracy at the 50/50 epoch: 94%

Test metrics

Confusion Matrix	Predicted LFC	Predicted HFG
True Low Frugal Consumer	1493	135
True High Frugal Consumer	287	1270

Target x Metrics	Precision	Recall	F1 score
LFC	0.84	0.92	0.88
HFF	0.90	0.82	0.86
Average	0.87	0.87	0.87

Area Under the Curve (AUC):

0.86

ROC curve

Conclusions

The performance of the predictive model was good in each tested metrics.

The implementation of the present model can be suggested for business/marketing purposes.