

IJARSCT

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 1, December 2022

Churn Prediction using Various Machine Learning Algorithms

Leena Mandurkar¹, Sawali Khanke², Rani Khandaskar³, Anmol Ukey⁴

Professor, Department of Computer Science & Engineering¹ Students, Department of Computer Science & Engineering^{2,3,4}

G.H Raisoni Institute of Engineering and Technology, Nagpur, Maharashtra, India

An Autonomous Institute Affiliated to Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur, Maharashtra, India Accredited by NAAC With A+ Grade

Abstract: In the era of big data, customer churn is a big problem faced by banks in the increasingly competitive market. The number of service providers are being increased very rapidly in every business. In these days, there is no shortage of options for customers in the banking sector when choosing where to put their money. In this paper, a method to predicts the customer churn in a Bank, using machine learning techniques, which is a branch of artificial intelligence is proposed. The research promotes the exploration of the likelihood of churn by analyzing customer behaviour. The KNN, SVM, Decision Tree, and Random Forest classifiers are used in this study. Also, some feature selection methods have been done to find the more relevant features and to verify system performance. The experimentation was conducted on the churn modelling dataset from Kaggle. The result gives us that in which algorithm the customer will stay or exits according to the data.

Keywords: Customer Churn In Bank, Decision Tree, K-Nearest Neighbours, Logistic Regression, Random Forest, SVM, X-G Boost algorithm, Flask

REFERENCES

- [1]. MACHINE LEARNING BASED CUSTOMER CHURN PREDICTION IN BANKING. (Fourth International Conference on Electronics, Communication and Aerospace Technology (ICECA-2020))
- [2]. An Enhanced Bank Customers Churn Prediction Model Using A Hybrid Genetic Algorithm And K-Means Filter And Artificial Neural Network (Proceedings of the 2020 IEEE 2nd International Conference on Cyberspace (Cyber Nigeria))
- [3]. Analysis and prediction of bank user chum based on ensemble learning algorithm (2021 IEEE International Conference on Power Electronics, Computer Applications (ICPECA))
- [4]. A study on Customer Churn of commercial banks based on Learning from Label Proportions (2018 IEEE International Conference on Data Mining Workshops (ICDMW))
- [5]. Customer churn analysis in banking sector: Evidence from explainable machine learning models (JAME, Volume :1 Issue :2 Year: 2021)
- [6]. PREDICTING CUSTOMER CHURN IN BANKING INDUSTRY USING NEURAL NETWORKS (Interdisciplinary Description of Complex Systems 14(2), 116-124, 2016)
- [7]. Kaggle Churn Modelling Classification Data Set
- [8]. How to save a scikit-learn pipeline with Keras regressor inside to disk?
- [9]. Churn Prediction in Banking System using K-Means, LOF, and CBLOF Irfan Ullah; Hameed Hussain; Iftikhar Ali; Anum Liaquat (2019 International Conference on Electrical, Communication, and Computer Engineering (ICECCE))
- [10]. Analysis and prediction of bank user churn based on ensemble learning algorithm- Yihui Deng; Dingzhao Li; Lvqing Yang; Jintao Tang; Jiangsheng Zhao (2021 IEEE International Conference on Power Electronics,

Copyright to IJARSCT www.ijarsct.co.in DOI: 10.48175/IJARSCT-7707

Copyright to IJARSCT www.ijarsct.co.in

IJARSCT

ISSN (Online) 2581-9429

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 1, December 2022

Computer Applications (ICPECA))

