**Topic:**

Customer churn prediction

**Title:**

Predict and Prevent Customer Churn using Data Science

**Abstract:**

Purpose of the project is to study customer’s behavior and data to predict and possibly prevent customer churn using data science techniques. Customer churn occurs when customers or subscribers stop doing business with a company or service. Also known as customer attrition or turnover, it is a critical metric due to the cost savings for a company to retain a customer in comparison to acquiring new ones. Awareness about cutomer churn helps an organization define customer retention processes, project goal success rates and identify strategies for improvement.

As part of the project, we will research and explore various data science tools and techniques to include: data prep, modeling, discovery. We will use these patterns obtained from customer’s data to identify a customer’s potentional to churn and explore ways to provide guidance via visualizations and reporting. This information would then be available to the businesses to help define retention strategies. Some common customer churn causes that we will explore are: poor customer service, poor onboarding process, lack of brand loyalty, and inability to maintain product quality.

**Blogs – Links:**

1. <https://blog.dataiku.com/churn-analytics-marketing-team-best-friend>
2. <https://towardsdatascience.com/how-to-leverage-ai-to-predict-and-prevent-customer-churn-f84d653a76fb>
3. <https://towardsdatascience.com/hands-on-predict-customer-churn-5c2a42806266>
4. <https://towardsdatascience.com/churn-prediction-770d6cb582a5>
5. <https://www.kdnuggets.com/2019/05/churn-prediction-machine-learning.html>
6. <https://www.bizdata.com.au/blogpost.php?p=customer-churn-prediction-with-algorithms>
7. <https://www.zylotech.com/blog/how-to-predict-and-prevent-your-customer-churn>
8. [https://www.kaggle.com/pavanraj159/telecom-customer-churn-prediction](https://www.kaggle.com/pavanraj159/telecom-customer-churn-prediction" \t "_blank)
9. [Customer churn prediction with machine learning](https://algorithmia.com/blog/customer-churn-prediction-with-machine-learning)
10. <https://www.quora.com/How-do-I-build-a-churn-prediction-model-on-retail-data>

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John Wiley & Sons (2014)

1. K. Coussement, K.W. De BockCustomer churn prediction in the online gambling industry: the beneficial effect of ensemble learning

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5. Duda, R.O., Hart, P.E., & D.G., S. (2001). Pattern Classification (2nd ed.): John Wiley & Sons Inc.