

Customer Churn Prediction – Leo Evancie

How can we use machine learning to predict churn among a group of telecom customers?

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1 Context

For any business where customers pay per period for continued service, customer loss (or “churn”) means loss of revenue. While inevitable in some measure, minimizing churn is essential, and it’s easier (and much cheaper) to keep a current customer than gain a new one. The key to preventing churn is to be able to reliably predict it. If we can understand what precedes customer dropout, we can intervene before it’s too late.

2 Criteria for success

Success will mean the creation of a model which classifies churned vs. not-churned customers with high recall.

3 Scope of solution space

We will focus on telecom customer data from a publicly available source and develop predictions in the context of this one particular (hypothetical) business.

4 Constraints within solution space

Drawing from a static, historical data source, there is no ability to gather additional data or seek further context for existing data.

5 Stakeholders to provide key insight

Insights should be shared with the heads of sales and customer service, to provide targets for interventions aimed at retaining the customers predicted to churn.

6 Key data sources

Telco Customer Churn ([Kaggle](#))

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