



MACHINE LEARNING APPLICATIONS HELP TOP-20 EUROPEAN BANK MEET EVOLVING CONSUMER NEEDS

IMPACT

- 15% more customers are approved for credit
- Custom analytical insights driven by machine learning applications provide customers with more relevant financing opportunities
- Ability to easily join and merge data from across the bank and outside through a scalable data platform

Challenge

The bank’s challenge was harnessing large quantities of data from disparate sources into one place, illustrating the power of using alternative data. This would enhance the decision process to fit the evolving needs of customers. With consumer preferences shifting away from credit card spend and more towards direct debits and indirect financing, fewer and fewer customers have a significant amount of credit bureau information associated with them. For example, younger buyers seeking financing for buying smartphones. Less credit history available presented a challenge in making traditional lending decisions. Additionally, the bank needed a solution to connect data science teams to data in a secure and governed manner.

Solution

The bank turned to the Cloudera platform in order to effectively access, join and process significant volumes of data to build a 360-degree customer view of their profile and understand customers better. This data is used to help meet the evolving demands across the customer journey, in a hyper-personalized way, creating a tremendous end-to-end customer experience.

In particular, the bank used extensive machine learning applications provided by the Apache Spark framework, including analytics capabilities, to effectively build a solution based on transactional data which provided a considerable enhancement to the existing decision process for a segment of the customer base. The team also uses Apache Kudu to bring near real-time data feeds into its data warehouse within the Cloudera platform. This enables quicker insights and model execution for a variety of use cases, including personalized offers for millions of customers and operational reports for thousands of users.

The solution that was built offers tremendous flexibility, and there’s an opportunity for it to extend into multiple other machine learning use cases.

Results

The machine learning models built are expected to provide significant improvements to the decisioning process when deployed, and in particular will provide a more holistic approach to the assessment of financing applications in order to address the increasing needs of transparency and flexibility to an increasingly credit-adverse audience. This solution significantly improves the customer experience. By using data integrated from a variety of sources, the bank can understand buying patterns better and recommend more suitable products to its customers.

Previously, the bank used a customer’s credit history when determining whether a customer should be approved or denied for financing. Customers with no credit history were being rejected often. Now, it can use other ways to approve customers, including basing it on paying their bills on time or their monthly cash flow. Now 15% more customers are approved for credit.