



Online Fraud Detection

Scale Risk Team Productivity with Predictive Analytics

Any online business is exposed to fraud risks by its very nature, from bots to phishing, scams to wire transfer frauds, and everything in between. The huge array of risks - not to mention the potential consequences of these risks - demands human intervention.

But hiring more staff to conduct manual audits is expensive and often inefficient. Plus, for online businesses used to efficiency and immediate delivery, manual audits considerably delay and decrease the user experience, damaging the site's reputation. Therefore, the key to decreasing fraud risk is leveraging data and advanced analytics for automatic audits to scale with the growing demand. This enables audit teams to focus primarily on ambiguous cases that actually require a review. Let's see how a medium-sized company managed to develop its analytics expertise so as to increase their service's efficiency.



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About Our Customer

Launched in 2012, SendinBlue was created to become the simplest, most reliable and cost-effective marketing platform. This all-in-one solution now powers marketing campaigns for more than 50,000 companies around the world. With offices in North America, Europe, and Asia, the SendinBlue team supports the product in six languages. Their platform integrates with the top e-commerce and CMS tools, and their system delivers over 30 million emails and text messages per day.

Industry

Marketing

Market

Worldwide

Use Case

Fraud Detection

Challenge

Customer Validation at Scale

SendinBlue is a relationship marketing SaaS solution that allows customers to execute email and SMS campaigns. Because the core of its service is the successful sending of customers' messages, SendinBlue must maintain exceptional delivery scores and therefore cannot allow the use of stolen, false, or purchased email databases that would decrease its email reputation. So when customers upload databases, SendinBlue must ensure all contacts on the list are opted in. To be considered as opted-in, these contacts must have been in touch less than two years ago. They must be able to unsubscribe and can only receive emails related to their initial queries.

SendinBlue used to rely on manual validation of new customers, checking (among other things) the quality of their databases, but it was a painful and long process that required a large workforce. It also severely delayed account validation for customers and was therefore detrimental to SendinBlue's reputation. Faced with a growing customer base, SendinBlue could not continue down the path of manual validation and feasibly scale.

Solution

Automatic Analysis for More Targeted Manual Validation

To move away from manual validation and allow for rapid growth, SendinBlue turned to Dataiku Data Science Studio (DSS), leveraging their expertise in the area of automated fraud detection. With Dataiku, SendinBlue built a scalable solution using historical data coming from more than 1 billion emails and associated events (clicks, opening rates, bounces, etc.), thousands of blocked accounts, and hundreds of fraud criteria (IP addresses, history, behaviors, etc.).

SendinBlue's new solution with Dataiku:

- Analyzes new customers and automatically classifies them as "good," "bad," or "uncertain."
- Once the new customers are classified, an algorithm determines

the customer's credibility by taking into account sending volume, the scoring of the contacts, etc.

- Depending on the customer's risk score, they may be blocked, validated, or sent to customer care for manual analysis.

Throughout the process, Dataiku proved paramount in deploying the data product into production. SendinBlue chose Dataiku as their preferred solution because of its flexibility to easily handle huge amounts of different datasets and its ability to design, test, and develop a solution in less than three months.

Impact

Quick, Accurate Validations Fuel Scalable Growth

Thanks to Dataiku, SendinBlue teams have been able to scale by serving customers more quickly. This analytics initiative saved the equivalent of a full time job and rationalized the global validation process, letting SendinBlue exponentially scale its team and customer growth. On top of this, SendinBlue is able to provide a better customer experience by considerably shortening validation delays. Initially handling just 24 percent of the new accounts as part of a staged rollout, the machine learning model now handles most of the new accounts.

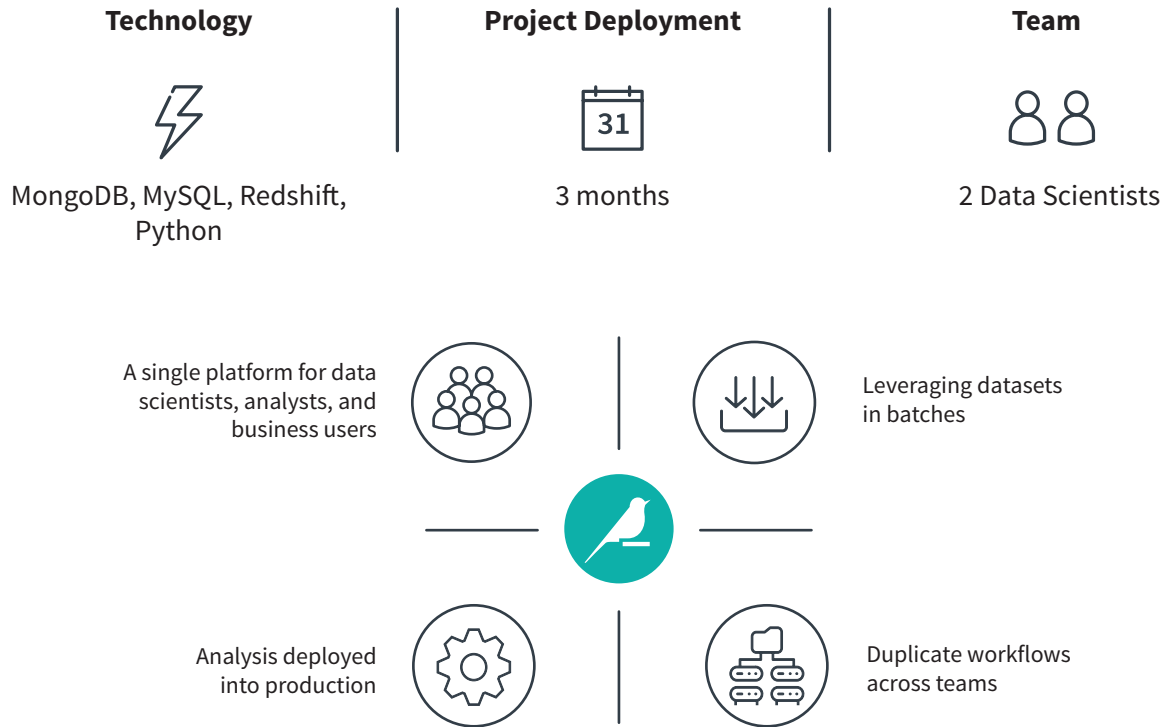
Dataiku also ultimately allowed SendinBlue to be more accurate in their validation, thereby increasing their email reputation; the first iteration of their model leverages Random Forest and has an 83 percent precision rate on email address classification.

Armand Thiberge-Sendinblue CEO :

"Dataiku helped us to massively scale our team's productivity while delivering a better user experience. We are now going to leverage the power of machine learning to aid our customers in real time while they use SendinBlue. As the fraudsters' systems always evolve, we'll soon leverage a new generation of advanced algorithms to detect new kinds of fraud."



Project Overview



SendinBlue & Dataiku: Automating Fraud Detection Online

- > Advanced machine learning automatically validates each new account creation
- > Customers have a better experience via drastically reduced validation time

GET STARTED