



Improving Fraud Detection by Evangelizing Data Science

Enabling a Data-Driven Organization via People, Processes, & Technology

Anomaly detection, and more specifically fraud detection, is all about finding patterns of interest (outliers, exceptions, peculiarities, etc.) that deviate from expected behavior, and it is these systems that allow financial and insurance institutions to ensure the security of their systems.

But in today's world, change is the only constant, so the idea of normal behavior in the context of anomaly detection will continue to shift. In addition, systems also change over time, but gradual change doesn't always equate to anomalous behavior. So putting a fraud detection system in place isn't a set-it-and-forget-it deal: it needs to constantly be evaluated and updated. With limited resources, how can organizations ensure that data systems - like a fraud detection system - stay relevant?

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About Our Customer

BGL BNP Paribas is one of the largest banks in Luxembourg and part of the BNP Paribas Group. It offers an especially wide range of financial products and bancassurance solutions to individuals, professionals, private banking clients, and businesses. In 2017, the international magazine Euromoney named BGL BNP Paribas “Best Bank in Luxembourg” for the second year in a row.

Industry

Banking & Insurance

Market

Luxembourg

Use Cases

Anomaly Detection
Fraud Detection

Challenge

Limited Visibility and Ability to Harness Data Proactively

BGL BNP Paribas already had a machine learning model in place for advanced fraud detection, but with limited visibility into that model as well as limited data science resources, the model remained largely static.

Members of the business team were enthusiastic about updating the model but were stymied by lack of access to data projects as well as access to the data team to execute the required changes. The challenge was to harness a data-driven approach across all parts of the organization.

Solution

Empowering All Employees to Be Data Driven while Maintaining High Security & Governance

BGL BNP Paribas chose Dataiku Data Science Studio (DSS) to democratize access to and use of data throughout the company. In just eight weeks, BGL BNP Paribas was able to use Dataiku to create a new fraud detection prototype. And thanks to Dataiku’s advanced, enterprise-level security and monitoring features, they were able to do all of this without compromising data governance standards.

The project involved data analytics and business users from the fraud department as well as data scientists from BGL BNP Paribas’ data lab and from Dataiku. The collaborative nature of Dataiku and involvement of teams throughout the company allowed for the optimal combination of knowledge to produce an accurate model delivering clear business value.

Impact

Company-Wide Focus on Prototyping and Productionalization

Dataiku’s production features allowed for a smooth transition in BGL BNP Paribas’ production environment, enabling the new fraud prediction project to show results very soon after the start of project. This, combined with Dataiku’s ability to enable quick prototyping, allowed BGL BNP Paribas to quickly test new use cases in a sandbox environment, giving teams flexibility to evaluate new use cases in just a few weeks time to test the global approach and effect.

In turn, the success of the first fraud prediction project was the catalyst for company-wide change at BGL BNP Paribas. Following the completion of the project, there has been a marked shift in company culture to focusing on deployment, industrialization, and quick, easy prototyping when it comes to data products. In addition, because Dataiku is a tool for everyone and not just data scientists or analysts, there has been a shift to focus on using data in advanced analytics and machine learning throughout the company.

BGL BNP Paribas has already begun three additional data projects following the first fraud detection prototype and plans to continue to release new data products regularly to stay at the cutting-edge of the financial industry.