TAZI

Account Takeover Fraud Detection Using AI for Business Teams

How a $10B US Credit Union Increased its Account Takeover Fraud True Positives by **56%** and Efficiency by **53%**

TAZI's Account Takeover (ATO) Detection Solution has significantly improved the accuracy of fraud detection as well as overall data quality

Problem

A leading Credit Union was in a constant battle with account takeover fraud. They were already utilizing an AI model to select transactions to review. This model was written in Python by a data scientist who was no longer at the Credit Union. The true positives rate of the old AI model was only 50%, so the Fraud team spent excessive time reviewing unnecessary transactions (false positives). They also weren't sure how much this impacted member experience, complaints, and the Credit Union's overall reputation.

Challenge

Although the Credit Union has experienced fraud domain experts and fraud analysts, it lacks the data scientist resources to continuously monitor, update and maintain AI models based on the domain experts' findings and needs. Furthermore, the old AI model has become a black box for the Fraud team: they could not understand how it worked, could not add additional data points to improve the accuracy, and could not choose adaptive operating points to update the model as fraudsters' behavior evolves.

With a high volume of transactions to process, the Credit Union faced challenges in reducing false positives and preventing false negatives. As their constant battle against fraud continued and they utilized AI to fight, they were seeking a more scalable and transparent AI solution and maintenance that can accurately pinpoint transactions with the highest fraud potential. The solution needed to easily integrate with existing systems, identify constantly changing trends in fraudster behavior using enhanced data sources, be explainable, and comply with all the regulations for AI governance. Finally, the solution had to be able to accept domain experts' input and feedback to keep improving under dynamic fraud and business conditions, and it needed to give the Fraud team the ability to maintain and update the solution to alleviate the burden on the small data science team.

Approach

The Credit Union's Data Science Manager and VP Engineer first engaged with TAZI and they brought one of their two (2) data scientists. After understanding the TAZI AI Platform, they asked the Fraud Data Analyst and Fraud Manager to join and utilize TAZI's ATO Fraud Detection Solution which has an option of on-prem, or cloud deployment options. The solution integrates seamlessly with existing transaction systems, in real-time, through Rest-API. It analyzes data from various sources and considers multiple factors to generate probability scores for fraud.

The Fraud Data Analyst and Fraud Manager were actively involved in the solution's configuration and validation, and the Fraud Data Analyst can now monitor and update the solution. The Fraud team gained a thorough understanding of how their solution works, and its limitations. Additionally, they have access to all the documentation and reports to provide compliance and client reporting.

» Benefits

56%	**53%**	**$2M**
Increase in True Positives	Increase in Efficiency	in additional fraud caught (2-month timeframe)

Fraud Team control the data columns used in the models, operating decision scores and segments.

Improved Adaptability

Fraud Data Analysts can create, monitor and update the AI solution alleviating the burden on the data science team.

Business Ownership

Spending only 2 hours per month I can easily monitor and update the new Account Take Over AI solution.

Senior Fraud Analyst