

Financial Crime Risk Reduction

Cutting edge machine learning reducing false positives and automatically detecting AML risk.

Situation

"How can we utilise modern tools to combat financial crime?"

Despite massive investment in software solutions, most financial crime prevention processes are still based on basic, logical rule sets and generate a lot of wasted manual effort. Teams on the ground, although highly specialised, are often facing systemic challenges including:

- High volumes of false positive alerts driving wasted investigations
- Increasingly complex customer behaviour that traditional rule sets are slow to react to, greatly increasing regulatory risk
- Regulatory pressure to demonstrate quality and consistency in investigations
- Poor customer data quality

Value Goal

To drive step-change improvements in the industry's ability to detect and manage financial crime through Data science and applied Machine Learning.

Our Approach

We classify financial crime prevention use case by the type of value they drive.

Improved Identification

Preventing financial crime is not looking for a needle in a haystack. It's looking for a needle pretending to be hay. Machine learning algorithms use every needle you find to adapt and give you a better chance of identifying anomalies and catching the next one.

Reduced Operational Costs

Banks regularly find 95% of alerts are false positives, generated from rules-based systems. Increasingly sophisticated customer behaviour is making investigations more challenging, creating unnecessary escalations. Machine learning can help reduce the workload on stretched operational teams and make more intelligent planning decisions.

Improved Quality & Compliance

From improving the quality of data available to alerting systems and investigators, to adapting to new regulations, machine learning can help reduce risk and increase confidence in your financial crime prevention systems.

Results

Improved Identification

Using machine learning to inform rules-based alerting systems:

Applying a basic decision tree model, we helped our client drive a 50% increase in the identification of credit card transaction fraud. Using clustering techniques on customer demographic data we helped our client to increase the identification of Authorised Push Payment fraud by 100%.

Reduced Operational Costs

Text analysis to automate heavily manual processes:

Extracting themes from text documents was taking our client 4 days a month just to review a 20% sample. Through text analysis we reduced the process to 40 minutes to review the full data set.

Improved Quality & Compliance

Path analysis to identify root causes:

Constructing an events stream of all customer interactions and running path analysis, we enabled our client to identify unknown weaknesses in their process which were triggering issues.

Impact

Applying Machine Learning algorithms at various stages in the value chain to augment the manual processes reduces existing inefficiencies while increasing insights, ultimately exposing suspicious behaviours and minimising financial crime risk as early as possible.