saffron TECHNOLOGY an intel company

CASE STUDY

DETECTING AND REDUCING COST OF FRAUD RINGS

BACKGROUND

Within the insurance industry, fraud can span from opportunistic individual claims to organized multi-million dollar rings that involve staged auto accidents and participating medical equipment providers and clinics.

The speed and sophistication at which new fraud techniques are emerging create major challenges for today's fraud detection systems to keep up; it involves building new models, creating new dictionaries, and performing new training. In addition, the growing number of parameters used by institutions to identify individual claims increases the difficulty to "match" new claims against existing ones in order to identify possible commonalities.

The current tools available to insurers cause them to miss a significant number of fraudulent claims. Moreover, today's special investigative teams within insurance companies are overwhelmed with new cases; as a result, these teams detect only 1% to 3% of the 10% of claims that are likely to be fraudulent.

CHALLENGE

A leading insurer contacted Saffron with a challenge: reduce its multi-billion dollar expenditures on auto insurance claims, which is its largest annual expense. Currently, the company avoids paying out only about 0.33% of the predicted 10% of fraudulent claims.

The insurer uses both manual and automated systems to flag questionable claims. These claims are then passed on to the investigative case managers who read adjuster and other member notes, explore the fraud watch list, and search the web. Existing methods prevent the investigative team from detecting fraud rings because they do not have a holistic view of the connections across insurance members, providers, claims, and other entities in the data. The inability to view existing claims, while systematically looking across claims from past years, further prevents these teams from discovering relevant knowledge of possible colluding entities. As a result, the insurer cannot easily discover fraud rings or, more importantly, collusion among other fraud rings.

IN LESS THAN A MONTH, SAFFRON EXAMINED 113,000 CLAIMS FROM 1 YEAR IN 1 STATE AND FOUND 3 POTENTIAL FRAUD RINGS.

The insurer turned to Saffron to find a more effective way to prioritize questionable claims (i.e. the individual claims with the most financial exposure) and provide a holistic view of all associations across all entities within these claims to detect possible fraud rings.

SOLUTION

Saffron worked with the insurer for ten weeks to find hidden associations and detect fraud rings. The Natural Intelligence Platform ingested auto injury claims data and MSR notes from three states within the last three years. Saffron's cognitive computing technology learned from both legacy claims and new claims; this allowed investigative teams to see patterns and similarities of providers across all claims and easily identify fraud rings. For example, Saffron discovered that a radiology clinic from the investigative watch list was actually part of a much larger fraud ring and a common link that connected three potential fraud rings together. The clinic was previously identified as

fraudulent for MRI overcharging, but the investigative team could not view the clinic's possible connections with other providers. Using Saffron's "reason by similarity" analysis, the Natural Intelligence Platform illuminated all otherwise hidden connections to that particular clinic as well as the other colluding rings.

RESULTS

Saffron examined 113,000 claims(structured data) from one year in one state and found three potential fraud rings, warranting further investigation, in less than a month. Under further investigation, Saffron detected that these three rings were part of one larger ring that included 38 claims and 42 participants of various providers such as psychologists, acupuncturists, physical therapists, physicians, and durable medical equipment providers. From these 38 claims, the insurer unknowingly paid out approximately $400k to questionable providers of the $700k that was billed. According to the insurer, every 0.1% increase in avoidance payouts results in a $10 million addition to the bottom line. As a result, Saffron's cognitive computing technology can help insurance companies avoid such costly and unnecessary payouts.

WHY SAFFRON

Unprecedented Accuracy
Saffron provides our customers with the highest degree of data accuracy – the proof is in our results.

Full Transparency
Saffron gives our customers the explanation and reasoning behind the results of their data.

Learns on Sparse Data
Saffron learns on sparse data so you don't need volumes of data to get started.

Time-to-value
Saffron's customers can rapidly unlock value in their data (i.e. weeks rather than months).

Speed-to-insight
Saffron provides our customers faster speed-to-insight to quickly see the actionable knowledge in their data.

Model-free and rule-free
Saffron is dynamic and not constrained by rules and models - incrementally learns and adapts in real-time from incoming data and human feedback.

High ROI
Saffron has a proven track record of high ROI for leading enterprises across industries and use cases.

ABOUT SAFFRON

Saffron's Natural Intelligence Platform combines the power of computing with human-like intelligence to quickly make sense of your data and provide organizations with actionable knowledge to aid in decision making. Our model and rule free platform learns, reasons, remembers and adapts in real-time, ingesting data from disparate sources (structured and unstructured), to find new patterns and reveal previously undetected knowledge. Saffron's cognitive analytics platform has been applied to solve complex business problems across a wide range of industries from manufacturing, financial services, energy, healthcare and government. Saffron was acquired by Intel in October 2015 and is part of the New Technology Group. For more information on our technology and solutions visit us at www.saffrontech.com.