

# FRAUD DETECTION AND PREVENTION LEVERAGING DATA



Technology



Time



Team

Data Analytics,  
Machine Learning  
Data Visualization &  
Governance

24 weeks

1 Data Scientist  
1 Data Analyst

## About Client

Our Client is one of the top 20 Life Insurance & Annuity carrier, insuring millions of people from celebrities to working people in every state around the country. With \$30 Billion Assets under management and core earnings of more than \$200 million annually, the client has been in business for more than 150 years and has a lot of legacy platforms and insurance products.

**Industry**

**Life Insurance & Annuity**

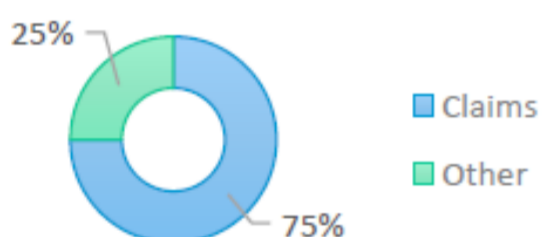
**Market**

**United States of America**

**Use Case**

**Fraud Detection & Prevention**

### Where Fraud Occurs



## Challenge

To Detect and Prevent sophisticated fraudsters – Fraudulent claims, illegal account takeover, con artist, scam artist.

## Case

The Client, found fraudulent loans and reimbursements stemmed both from agents as well as customers. Failing to have a fraud detection system in place, the company had struggled to fight back fraudsters in variety of situations.

They were using “if-then-else” business rules to identify likely fraud cases, which resulted in the manual audit team spending their time on too many low-risk cases. With increase in loans and reimbursement volume they needed to improve their efficiency.

## SOLUTION

Leveraging data and analytics using statistical techniques and machine learning algorithms to develop fraud detection model. This model, using complex congruence of mathematics and algorithms, will rank agents and customers on a scale ranging from being the least risky to be the most susceptible to get compromised or commit a fraud.

The detection model solution was put together by crunching data from a variety of databases, non-conventional data sources, Insurance claims, User data (social media, cell phone, ATM usage), graphs, financial records and other contextual data including historical and current data. The Solution provided by us incorporate Descriptive, Predictive and Prescriptive analytics, the machine learning algorithms that were incorporated in the solution, continually update and automatically learn or retrain using the latest data so that any new fraud patterns are immediately identified and audited.

## Impact

Due to the Comprehensive Solution deployed in the company, the fraud detection capabilities have increased 3X fold and proved to be more effective in scrutiny, detecting and preventing incidents.

- Enabled fraud detection teams to target actual fraud cases three times more effectively.
- Reduced Error rate and false positives of fraudulent cases.
- Saved huge amount of time an effort for the reimbursement team and security team
- Automatic updating and monitoring of the detection model along the way to prevent drifting of performance with little human supervision.