

# Success stories in predictive analytics in Financial Services

Top 50 Best Companies to Work for in India 2016 – Silicon Review Magazine

Predictive Analytics Company of the Year 2014 – CIO Review Magazine

Top 20 Company in India - TiE Lumis Entrepreneurial Excellence Awards 2013

Top 50 Big Data Analytics Companies in India 2013 – CIO Review Magazine



A large general insurance company assessed the break-in risks associated with each new auto insurance lead for rejection or acceptance using predictive acquisition model

## **Objectives**

- Leads enter the systems & need to get processed for further on underwriting risk associated with their conversion
- Client wanted to develop a predictive acquisition model which assesses the risk associated with break-in leads

# Our Approach

- Created 100+ variables
- Key variables used Lag between inspection & creation, lead generated on holiday or long weekend, previous policy break-in days flag etc.
- Developed rejection model
- Rejection model developed using random forest to score leads by predicting their risk of fraudulent claims post conversion
- Model scored on customer base
- Leads approved at this stage are each assigned a policy number

## **Impact**

Model has a high precision and recall making it possible for the client to better assess risks associated with each lead and score it for rejection or acceptance

**Random Forest** was trained on 75% of dataset and 25% was used for validation; developed two stage prediction models

Model's performance in predicting rejections

Precision	79%
Recall	60%
F1-Score	68%

Model's performance in predicting approvals

Precision	81%
Recall	92%
F1-Score	86%



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