DATA SCIENCE FOR INSURANCE

Getting it right in insurance is harder than ever. The complexity of risk is rising due to climate change, terrorism, and cybercrime. Smart homes and autonomous vehicles are creating new, complex industry dynamics and unprecedented considerations when crafting policies. The analytics behind today's underwriting, valuation, and fraud detection need to be reinvented to be lightning fast, laser accurate, and adaptable. Failure to deliver means, at best, lower profit and dissatisfied customers. At worst, it exposes insurers to massive losses. Altair® RapidMiner® enables insurance companies to harness their data to meet customers' changing needs while assessing and protecting themselves against new horizons of risk.

Data Science Improves Insurance In:

Risk Assessment and Price Optimization - With Altar's data science tools, users can develop a more insightful understanding of existing and emerging risks by combining machine learning and vast new data sets from vehicles, homes, and wearables. This understanding enables insurers to set prices more effectively – even at the individual level – maximizing both client appeal and company profitability. Create a clearer picture of company-wide risk exposure to make informed portfolio decisions.

Underwriting and Claims Processing - Automate routine transactions to increase agility, reduce costs, and improve customer satisfaction. Many policy applications and claim submissions can be processed without human intervention. Machine learning-driven algorithms look for signs of abnormality or concern and fast-track straightforward cases or add necessary contextual data where needed.

Fraud Detection - Data science can be an important defense against application and claims fraud. Machine learning can look across massive data sets and transactions to flag potential fraudulent and/ or duplicate claims better than relying exclusively on human review. New data sources – such as digital and social channels – can also be used for evidence of fraudulent behavior after a claim is made.

$40 ▲
billion of insurance fraud prevented every year

400 ▲
basis point profit boost when insurers use analytics
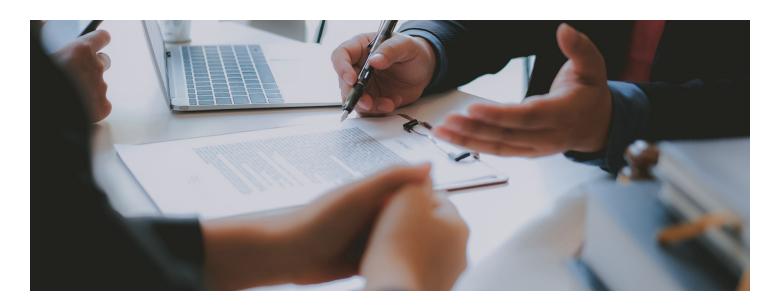
90% ▲
of insurers can build a business case for data science

30% ▲
annual growth in cyber insurance premiums, despite insurers not being confident in how to price policies

Insurance Benefits from Data Science:

Drive Revenue
- Optimize pricing to price sensitivity by geography and individual clients
- Understand customer segments to expand multi-channel strategies
- Assess customers' long-term value to personalize service

Cut Costs
- Streamline claims processing by automating data-dependent steps
- Use business process mining to find opportunities to be more effective
- Streamline underwriting to achieve real-time speed, cutting costs and delivering better service

Avoid Risks
- Immediately identify fraudulent and unwarranted claims or policy applications
- Reduce risk and ensure compliance with precise and efficient scoring

Data Science Enables an Innovative, Digital-Only Insurance Model

An auto insurance provider based in Germany operates in a digital-only model. The company has automated practically every step in its process, so customers don't need to make a single phone call to apply for, obtain, and submit a claim for auto insurance. These streamlined operations are enabled by the company's embrace of data science and machine learning, and powered by their use of the Altair RapidMiner platform. With Altair RapidMiner, the company is continuously capturing and cleansing data to build and refine machine learning models that drive business, automate routine processes, assess risks, and set prices.

How Altair RapidMiner Optimizes Insurance

The Altair RapidMiner platform helps insurance companies recognize and unlock previously unseen potential. Using the power of machine learning without requiring experienced data science and data engineering teams, insurance companies can better assess risk and price policies, automate routine processes, and identify signs of fraud, enabling them to driver greater revenue, reduce costs, and avoid unanticipated risks.

To learn more, go to altair.com/insurance.