Trustworthy AI in P&C Insurance

Improve quality, build trust, scale up.

Scaling AI in P&C insurance

Artificial Intelligence and Machine Learning (AI/ML) has the potential to transform P&C insurance, touching every core process: marketing, underwriting, pricing, claims, fraud management, customer engagement, and investment management.

However, real-world adoption of AI/ML remains sub-scale in most insurers. For many, AI/ML models are not considered transparent and reliable enough to meet business, customer and regulatory expectations in high-stakes use cases.

P&C Insurers face a difficult choice - ride the AI/ML tiger and risk reputational and regulatory blowback from poorly managed risks, or continue with lukewarm adoption and cede ground to 'braver' tech-first challengers. They must take the challenge head-on, and put in tools and processes to make AI trustworthy.

TruEra helps insurers capture business value from AI/ML at scale
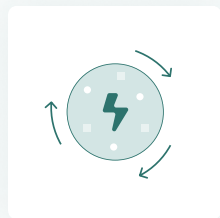
Faster deployment

Improve model quality earlier in the life cycle. Accelerate time to approval.
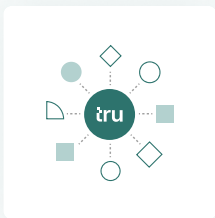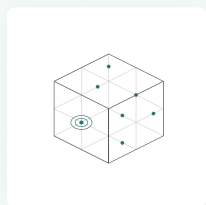
Greater buy-in

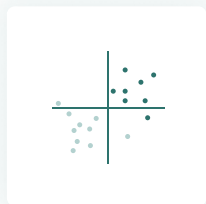Explain easily models to stakeholders. Build understanding and trust.

Robust governance

Automate compliance with regulatory and internal standards on AI/ML use.
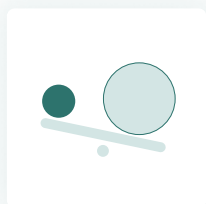
Barriers to AI/ML adoption

Transparency

Is the regulator able to understand how customers' data is used for underwriting & pricing decisions?

Fairness

Are claims made by customers of a particular race, gender or age group more likely to be discriminated against?

Data bias

Will the pricing model trained using data from one geography or segment work in another?

Stability

How did the insurance underwriting model react to a major environmental change? Is the model still valid?

NAIC

Insurers and relevant third parties "should apply a systematic risk management approach to each phase of the AI system life cycle on a continuous basis to address risks related to AI systems, including privacy, digital security and unfair discrimination as defined by applicable laws and regulations."

US National Association of Insurance Commissioners (NAIC) Principles on AI, Aug 2020

eiopa
European Insurance and Occupational Pensions Authority

"Given the large amounts of data used by insurance companies across all parts of the insurance value chain, it is essential that insurance companies address the wider implications of the use of AI to ensure fairness and good consumer outcomes."

European Insurance and Occupational Pensions Authority, June 2021

Potential use cases - building trust in P&C insurance AI/ML applications

Targeted Marketing

- Assess whether marketing approach is promoting products unsuitable to customers' circumstances and/or needs
- Determine whether certain segments, however defined, are being actively, possibly inappropriately, targeted or avoided

Underwriting

- Understand what drives underwriting models' decisions as to which classes to write, along with which terms and conditions to apply
- Ensure insurance underwriting model decisions can be explained easily to regulators

Pricing

- Confirm pricing models are not using - either directly or as a proxy - data points that are not regulatory compliant
- Obtain regulatory approval for pricing models by clearly explaining how premiums are being calculated by the model

Claims management

- Monitor the predictive power and stability of the claims triage model on an ongoing basis
- Help investigators understand why particular claims have been flagged as fraudulent

Operational automation

- Provide early warnings when data drift is likely to impact the accuracy of models used to automate back-office processes
- Diagnose quickly root causes for performance degradation in operational efficiency models

Investment process

- Understand drivers of investment models, thereby identifying potential biases
- Monitor the reliability of investment recommendations

Why TruEra?

- ★ **Deep financial services expertise**
- ↻ **Model quality through the lifecycle: development, review/ approval, monitoring**
- ▦ **Broad support for different AI/ML model types, data types and platforms**

- ☑ **Proactive engagement with financial and data regulators**
- ◌ **Reliable explainability: well-suited to a regulated industry**
- ≡ **Easily embedded into different tech stacks**

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Cool Vendor in AI Governance and Responsible AI

Gartner

2021
World's Most
INNOVATIVE
COMPANIES
Artificial Intelligence

FAST COMPANY

10 Most Innovative AI Companies of 2021

Fast Company

TruEra AI Quality Management Overview

TruEra fills a critical gap in your AI stack, explaining and testing model quality throughout the lifecycle. TruEra's AI Quality Management solutions explain, debug, and monitor machine learning models, leading to higher quality and trustworthiness, as well as faster deployment. Backed by years of pioneering research, TruEra provides value across the model lifecycle, is independent of model development platforms, and embeds easily into your existing AI ecosystem.

TruEra Diagnostics

Experience fast, accurate, and scalable AI Model Quality and Explainability that build trust, helping models get into production and stay there.

- **Best-in class explainability**
  that is accurate and performant, based on years of research

- **Deep model evaluation**
  for assessing AI model quality, including bias, stability, reliability, and conceptual soundness

- **Universal approach**
  that scales across model development platforms, use cases, and ML model types

TruEra Monitoring

Easily track and troubleshoot machine learning model performance. With unique analytics, TruEra Monitoring goes beyond basic observability solutions by enabling faster root cause analysis and action.
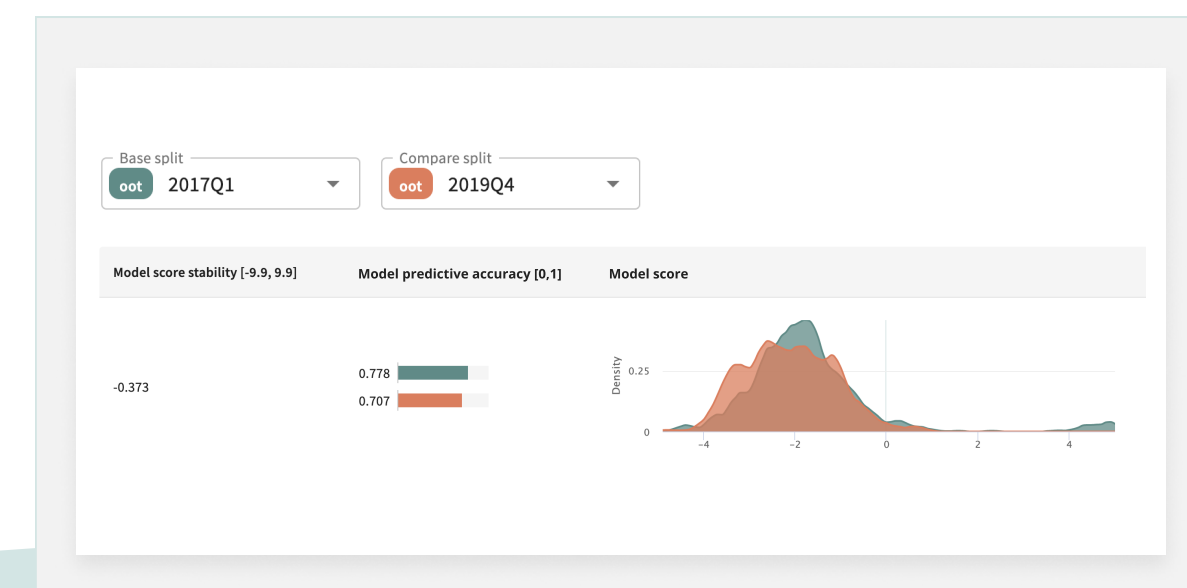
- **The broadest, deepest view**
  into model performance

- **Fast, precise debugging**
  that saves data scientist time and effort

- **Easy deployment and scaling**
  across hundreds of models in production
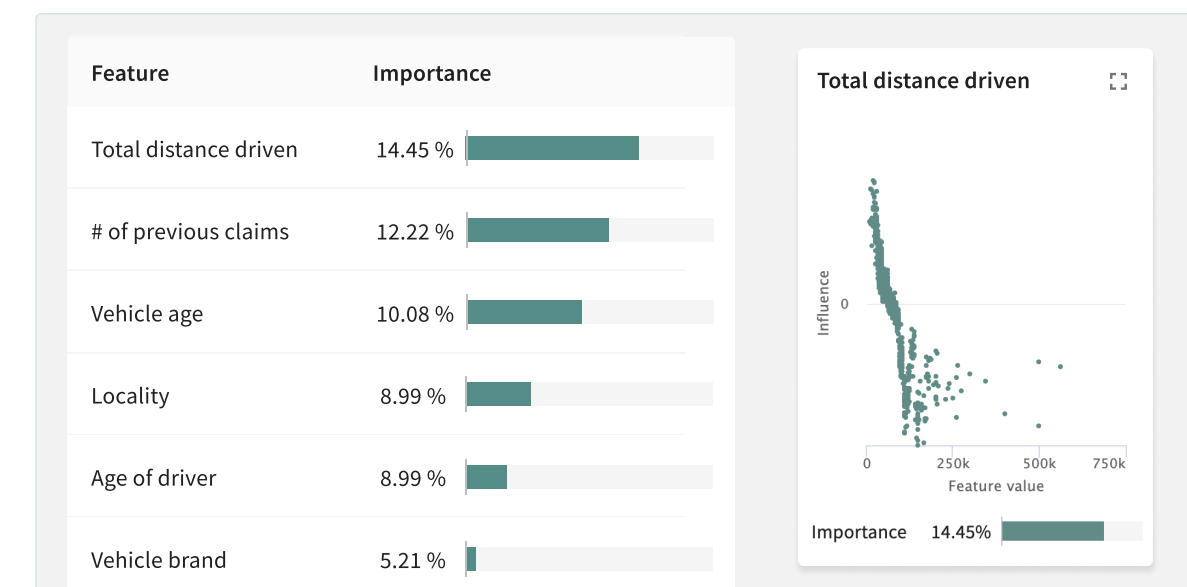
Explainability - Input factors driving the model's predictions/ recommendations
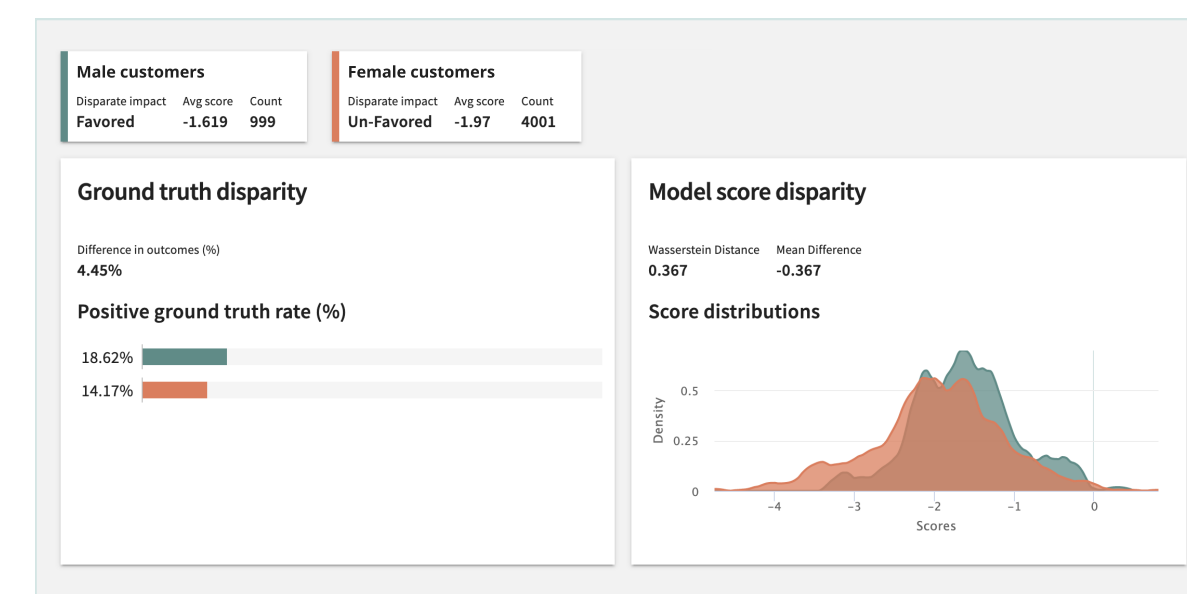
Fairness - Differences in model's treatment of different groups (e.g., gender)

Stability - Differences in model's predictions and accuracy over time