

Auto Insurance Claims Fraud Prediction



A Mphasis machine learning solution

Why Auto Insurance Claims Fraud Prediction?

- This solution provides a cost-effective way to predict fraudulent auto insurance claims.
- Significantly improves productivity of specialists triaging the claims.
- Supports decision-making process to rapidly evaluate insurance claims and prevent losses.
- Significant reduction in false positives as compared to any other rule-based fraud detection system.

Product overview

Fraudulent claims are a major challenge faced by insurance providers. Mphasis helps insurance providers predict whether a claim is fraudulent or not to support the decision-making process. This solution uses various policy, demographic, and incident details related to the claim to return a probability score of a claim being fraudulent.

Product features

Pioneering digital insurance

Mphasis enables insurance carriers to compete successfully and profitably by improving efficiency, delivering a seamless digital experience, and evolving with disruptive trends in the industry.

Machine learning based

Mphasis runs an ensemble of machine learning algorithms that predicts the probability of fraud for auto insurance claims.

Business intelligence and analytics

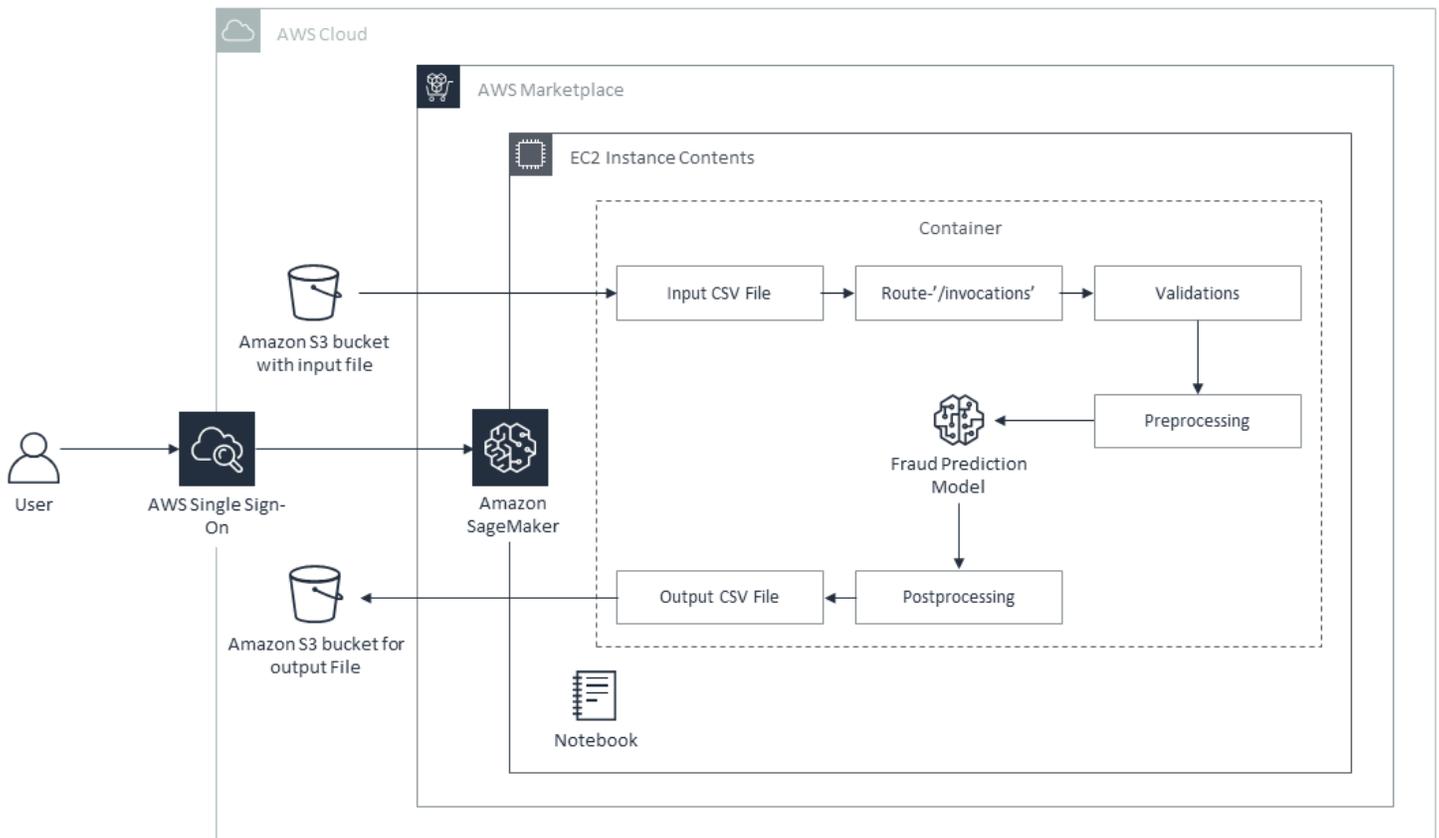
Mphasis HyperGraf is an omni-channel customer 360 analytics solution. It employs customized deep learning and machine learning solutions to generate actionable insights across millions of data points spread over multiple customer engagement channels.

How it works

This solution runs an ensemble of machine learning algorithms that predicts the probability of fraud for auto insurance claims. The underlying model takes the input from an Amazon Simple Storage Service (S3) bucket, performs preprocessing, understands the patterns in input data, and computes a probability score. This is then fed into the output S3 bucket and made available for the user.

Input—Data in a comma-separated values (CSV) file format, which contains insurance claims information and conforming with the usage instructions can be provided as input to the solution.

Output—The solution computes probability scores for each claim in the input data. Zero is the lowest score and one is the highest score. The lower the score, the lower the probability of fraud. The higher the score, the higher the probability of fraud.



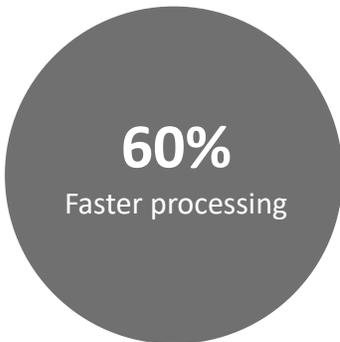
Differentiators

- Uses an ensemble of machine learning models for better accuracy and consistency.
- Reduces false positives significantly as compared to other solutions.
- Trusted by 55 global insurance carriers across service lines. Over 1000 insurance-certified, resources support our property and casualty (P&C) insurance services.

Product Specifications

	Input	Output
Supported content types	csv	csv
Unique Identifier	'policy_number'	'policy_number'
Target Variable	NA	'prediction_of_fraud'
Independent Variables	Refer to sample input file	NA

Data Points



* As compared to rule-based systems

Additional Resources

- [Mphasis HyperGraf](#)
- [Sample Jupyter Notebook](#)
- [Sample Input File](#)

Solution available in [AWS Marketplace](#)