



## New Fee, New Problem

Deep Learning Models  
Spot an Erroneous \$3800  
Excess Mileage Fee

### ABOUT INTELLIGENT AUDIT'S Machine Learning Capability

Our proprietary machine learning algorithms are an ensemble of auto-encoders, boosted decision trees, and LSTM (long short-term memory) deep learning frameworks, which can give invoice-level results in real-time. Training the algorithms includes a combination of supervised learning and self-supervised learning, which uses fully labeled datasets and leverages important insights on historical data made by account teams and other company experts.

The key to understanding machine learning is bringing actionable intelligence into the loop so the recipient understands what the data is saying and what actions to consider next as a result. In other words, anomalous events are presented with contextualized information to our customers to explain why something anomalous happened, and what they can do to mitigate any further exposure.



### What Happened

Our customer in the financial services industry is a frequent same-day shipper. Suddenly, packages were erroneously hit with a costly "Excess Mileage" fee based on the distance to destination. Historical shipments using the same receiver, sender and service had not previously incurred the fee.



### How Machine Learning Helped

Our deep learning models detected a new anomalous charge type based on excess mileage.



### Business Impact

Once detected, our account management team dug into historical data to confirm that the fee had not been previously charged on similar shipments. By detecting the cause of the costs and helping to quickly resolve the issue, IA enabled the customer to receive a full refund of all the charges from the carrier - who determined it to be an error on their side, attributable to a change made to the customer's rate table. More importantly, the speed of **IA's detection of the issue helped them avoid tens, if not hundreds, of thousands of dollars in future erroneous charges.**

**See how machine learning could help  
take your data to the next level.**

GET STARTED