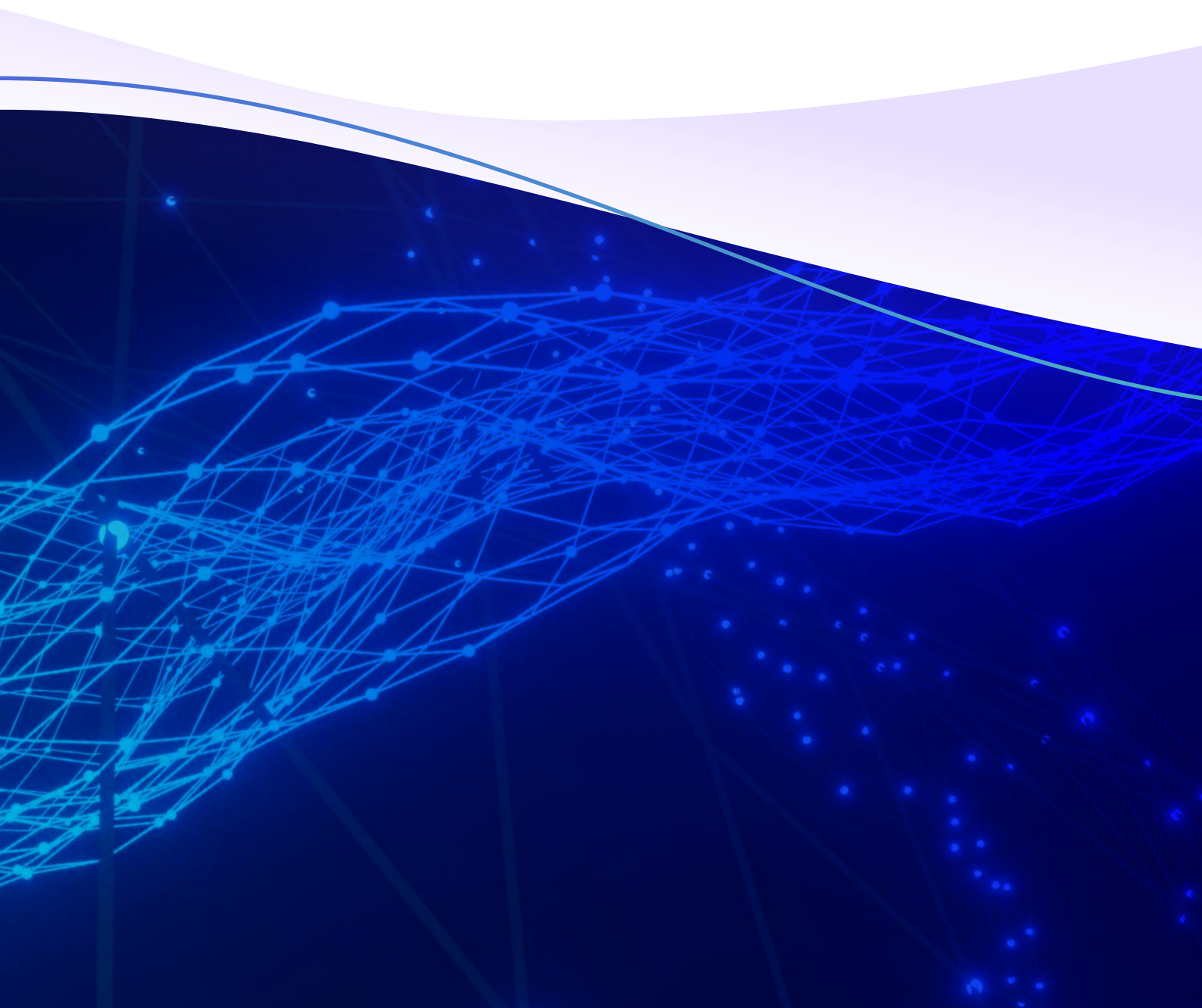


Gaining currency with
predictive analytics:
**How Coinmama uses Pecan
to discover hidden truths
in customer behavior**



Industry	Cryptocurrency exchange
Company Size	Over 3.5 million customers in 200 countries Annual sales over \$130 million
Solution	Fraud detection, payments review
Platform Use Case	Customer behavior predictions
Data Stack	Tableau™ Snowflake™

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Tammy Rotem, Data Analyst, Coinmama

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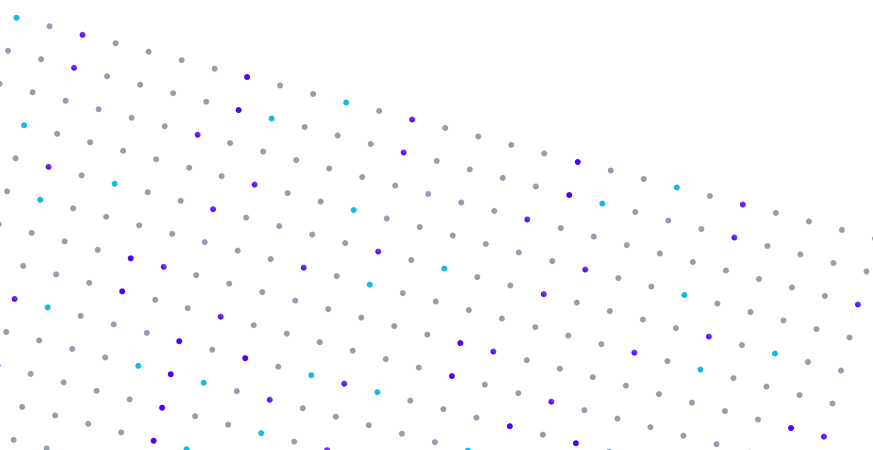
Saving an estimated 140 hours per month of analysts' time in the review process

1000s

Generating accurate predictions for thousands of transactions per week

2/3

Reducing the number of transactions requiring manual review by two-thirds



Overview

Getting to know customers is crucial for all businesses. However, simply having a lot of customer data doesn't guarantee easy insights. Which customers will become great customers? Which ones might become risky? Using data to dig into customer behavior can be a complex, inefficient project — at least until you find the right tools.

To reduce chargebacks and identify fraudulent transactions, Coinmama needs reliable, accurate methods of analyzing its data. Ideally, Coinmama could use its data to anticipate potential issues, but also to gain a deeper understanding of customers' behavior.

By implementing Pecan's predictive analytics platform, Coinmama's in-house data analysts were able to automate formerly manual processes. They've gained new perspectives on their data, enabling dynamic data-driven prioritization and decisions — all without assistance from data scientists. Pecan's platform has saved hours of work. Additionally, feature importance details have revealed which customer and transaction characteristics are most meaningful in predicting customer behavior.

Challenge

Manual methods based on historical data and statistics provided limited insight

Coinmama initially used a custom-written, manually run SQL script to apply static business rules to new transactions. However, this method was limited to a set of variables and rules that were established based on past analyses.

In addition to making this process more efficient, Coinmama also wanted to be able to look for emerging patterns of risk within its data. Recognizing those new patterns would make it possible to update predictive models so that they would constantly reflect current trends in customer behavior.

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Pecan made the transaction reviews more democratic. It removes the dependency on a certain person or process. Everything is shared much more than it was before.

Tammy Rotem, Data Analyst, Coinmama

Solution

Pecan democratizes data and predictive analytics

Today, Coinmama's data analysts create predictive models using Pecan's platform. Every transaction passes through their Pecan models. Using the transaction and customer features known to be currently most relevant, the models score each transaction for how likely it is to be fraudulent.

Pecan passes those scores back into Coinmama's Snowflake data warehouse. Finally, the transactions, predictions, and explanations for those predictions are displayed on a Tableau dashboard that's used by the payments team and refreshed daily.

"Pecan made the transaction reviews more democratic. Everyone has access to the data, refreshed every single day," says Tammy Rotem, data analyst at Coinmama. "It removes the dependency on a certain person or process. Everything is shared much more than it was before."

Predictions prioritize customer transactions for more efficient and accurate review

Armed with the dashboard, the Coinmama payments team can make fast, data-driven decisions in their review of customer transactions. The most concerning transactions are prioritized with Pecan's scores.

"We've reduced our rate of false positives by about two-thirds and are now manually reviewing a much smaller list of transactions. Pecan gives us the ability to prioritize that list as well, so we can tend to the riskiest customers first," Tammy says.

Only about a third of the transactions that previously would have been reviewed now require scrutiny, saving analysts on Coinmama's payments team an average of 8 minutes per transaction. That saves the team 35 hours of work each week. Additionally, using predictive modeling, Coinmama can uncover 15% more fraudulent transactions than with hand-coded scripts, leading to better early detection techniques and mitigation strategies.

In more technical terms, the Coinmama data analysts refined their Pecan model to achieve an AUC of 0.92. The Pecan model's precision is +0.42 higher at the 95% confidence level than the review team's previous, rules-driven baseline model. Ultimately, the Pecan model achieved precision of 0.87 at the 99% confidence level. The Coinmama team continues to refine and update the model as conditions change.

[Pecan's feature importance details deepen understanding of customer behavior across teams](#)

With Pecan, Coinmama's data team can also now evaluate which features affect the models' predictions. In other words, they can learn which customer details or transaction characteristics contribute to flagging a specific transaction as risky or not. They also compute an average importance for each feature across all of the predictions for a more comprehensive perspective.

In addition to the predictions for the individual transactions, the data team shares the feature importance information from Pecan with the payments team via a Tableau dashboard. Because these analyses are available to everyone on both the data and payments teams, they can have cross-team discussions of notable data points and emerging trends, together building a more thorough understanding of customers and behavior patterns.

"Pecan broadened the discussions between the data team and the payments team. It wasn't just the payments team doing their analysis and then building and tailoring scripts in a silo," Tammy says. "Pecan has led to an interesting discussion about accuracy and the need to better document the types of customer orders, leading to closer alignment on key issues between multiple teams."

3 Reasons Coinmama Chose Pecan

- Coinmama's existing data analysts were able to gain predictive capabilities [without hiring additional data scientists](#).
- Pecan was able to quickly integrate with Coinmama's [existing data infrastructure](#), including Snowflake and Tableau.
- Pecan's automation enabled [daily refreshing of predictions](#) and feature importance information for constant monitoring of customer behavior and emerging patterns.

Analysts refine models with dynamically updated knowledge of customer behavior

Coinmama's data analysts continually integrate new customer behavior insights into their Pecan predictive models.

"There's the added value of being in-house builders with Pecan. We know our data best, and we know how to use the platform in the best way to complement our data," Tammy says. "We have conversations about features, about how we can engineer them so they become better features, and about their impact on the models' outcomes."

Coinmama's data analysts have offered input on Pecan's model-building interface, as well as other insightful feedback on the platform's capabilities, creating a strong partnership. Pecan and Coinmama share the goal of bringing data science capabilities to data analysts, and the partnership has propelled growth for both companies.

Understanding customer behavior in any context with predictive analytics

Like Coinmama's need to understand what customer behaviors can indicate fraud, every company wants to more deeply understand the characteristics that indicate customer behavior at different stages of their journey. For example, the same kinds of predictive methods used by Coinmama can also be used by companies to determine which customers are likely to have the highest lifetime value, when a customer is likely to churn, or which customers will be more likely to respond to an upsell offer and what that offer should be.

Pecan's predictive analytics platform, combined with the savvy of Coinmama's analytics teams, has been a powerful force for saving time, reducing costs, democratizing internal data access and discussions about data, and gaining up-to-date, dynamic insights into customer behavior.

Get foresight into customers' future behavior with BI-friendly predictive analytics.

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