PUBLIC SECTOR
Fraud Detection

Devron

40% Increased Accuracy in Identifying Fraudulent Transactions

CASE STUDY

AT A GLANCE

DATA LANDSCAPE

- Disparate
- Tabular
- Heterogeneous
- Sensitive
- Terabytes

BEFORE

- 6-12 months to centralize data
- Manual fraud notification process
- Delayed time to value and slow reaction time

AFTER

- Gain insight in less than 2 days
- 40% increase in accuracy
- Real-time identification, notification & response

CHALLENGE

The US intelligence community must identify fraudulent transactions made on US soil across global banking data. To do this, they must access and analyze data from hundreds of international banks and flag transactions made by corrupt merchants with a US geocode. The data is tabular with varied schema, depending on the payment processor of each bank. In addition, it's distributed across different private cloud environments and contains sensitive financial information.

Historically, they would spend 6-12 months centralizing the global banking data before starting their analysis. This was a laborious and time-consuming process that created privacy and security risks. In addition, the notification process was manual and delayed, resulting in a slow reaction time.

SOLUTION

To solve this challenge, the US intelligence community implemented Devron, a federated machine learning platform designed to unlock disparate and heterogeneous datasets like these for advanced analytics. Using Devron's proprietary approach to vertical federated learning, their data science team could perform entity resolution between diverse global datasets in a matter of hours.

Devron allowed them to analyze banking data where it resides while keeping the source information private and secure. Devron never shares the raw data—only model learnings are sent back to the global model. As a result of this inherent privacy, they could unlock access to additional previously inaccessible datasets and gain greater global insight.

RESULT

With Devron, the US intelligence community began identifying fraud across global banking transactions in less than two days, increasing their accuracy by 40 percent. In addition, because the data is analyzed in situ, they can now flag corrupt transactions in real-time, stopping international fraud in its tracks.