DATAVISOR

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DATAVISOR FEATURE PLATFORM

Best-in-Class Fraud Feature Engineering Platform.
Accelerated. Automated. Advanced.

A NEW APPROACH

Organizations today are looking to leverage advanced detection tools such as machine learning solutions to protect against increasingly sophisticated fraud attacks.

To get the model performance they need, data science and risk teams need big data, as well as the ability to uncover actionable insights from large volumes of data. They also need access to high-quality features informed by extensive domain expertise.

However, feature engineering is historically complex and time-consuming. Creating high-quality features can be extremely tedious because building each new feature is a multi-step process, and large organizations potentially need vast numbers of features to successfully address all relevant fraud scenarios.

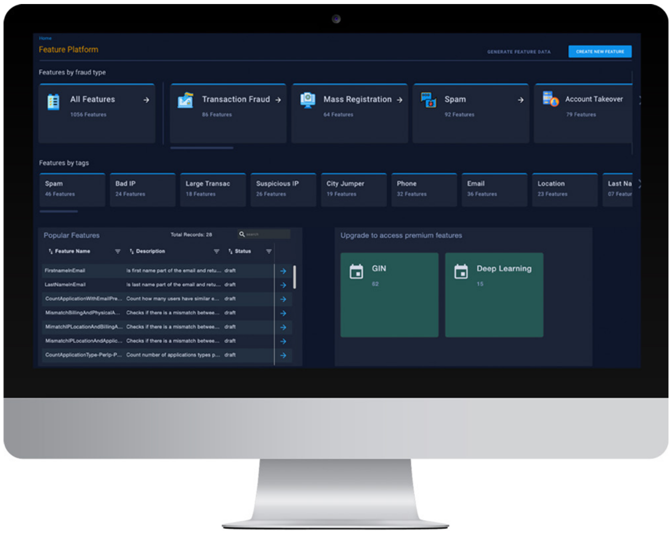
Organizations need a faster and more efficient approach. Automated feature engineering enables data science and risk teams to effortlessly access and build powerful features in just minutes, and to quickly deploy high-performance fraud models that deliver unrivaled results.

Automated Feature Engineering Powered by Unrivaled Domain Expertise

DataVisor's Feature Platform automates the feature engineering process by producing thousands of auto-derived features based on user-imported raw data and mapped fields. These features are created using attributes—such as device IDs, user agents, email addresses and more–to provide more powerful features for advanced fraud detection.

For example, IP address is essential for fraud detection. For each IP address in the raw data, DataVisor's Feature Platform derives additional features such as: ip_prefix, ip_city, check_ip_from_ datacenter, ip_country, and more.

To further improve model performance, DataVisor's Feature Platform can recommend select features optimized for specific fraud types. For example, if your organization is focusing on transaction fraud, the platform will recommend a list of features—based on DataVisor's advanced domain expertise—that are uniquely important for addressing transaction fraud, and that will deliver strong detection results right away.



Popular Features Total Records: 28

Feature Name	Description	Status
FirstnameinEmail	is first name part of the email and retu...	draft
LastNameinEmail	is last name part of the email and retu...	draft
CountApplicationWithEmailPre...	Count how many users have similar e...	draft
MismatchBillingAndPhysicalA...	Checks if there is a mismatch betwee...	draft
MimatchIPLocationAndBillingA...	Checks if there is a mismatch betwee...	draft
MismatchIPLocationAndApplic...	Checks if there is a mismatch betwee...	draft
CountApplicationType-Perlp-P...	Count number of applications types p...	draft

Advanced Deep Learning Features

Account-level detection is central to a proactive fraud management approach. As opposed to transaction-level detection, which is by definition reactive, account-level detection leverages advanced deep learning features to surface suspicious patterns from user-generated content (such as usernames and emails) before attacks are launched and damage is caused. Having these proactive capabilities is particularly important for defeating bot-scripted attacks at scale.

As an example, the "email_naming_pattern" feature will provide a fraud score indicating how risky the emails are, by analyzing all of the email strings, prefixes, and patterns holistically.

Advanced features like these serve as powerful fraud signals for enhanced model development.

Global Intelligence Network Features

DataVisor's Feature Platform also fully integrates with our Global Intelligence Network (GIN). The DataVisor GIN, powered by over 4.1B protected accounts and 800B+ events across industries, enhances machine learning engines with fine-grained fraud signals from rich digital data such as IP address subnets, prefixes, proxies and data centers, user agent strings, device types and OS, email address domains, and more.

The GIN integration further improves feature derivation and model performance.

Flexible and Effortless to Create Any Complex Custom Features

DataVisor's Feature Platform is designed for maximum flexibility. In addition to automated feature engineering capabilities that enable data scientists and risk teams to generate thousands of high-quality features in just minutes, the platform also offers the ability to custom engineer unique features tailored to specific organizational needs. Teams can infuse the feature creation process with their own internal expertise, ensuring even greater degrees of customization and optimization. They can engineer any features using comprehensive functions and operators, and these features can be at event level, user level, or cluster level.

Examples include:

- Attribute and transformation features; features from IP, address, user name, device ID, amount, and more.
- Velocity and aggregation features; for example, a feature to calculate the total number of logins from a single user in a 24 hour period.
- Advanced features; for example, a feature to calculate the total amount of transactions processed from a particular device within a set 7-day period, where the amount of transaction exceeds $500.

Features like these can be created with just a few clicks in the UI or via simple coding—no additional support from IT departments is required.

Automated Engineering

Start using thousands of auto-derived enriched features in minutes.

Complete Flexibility

Engineer custom features to further enhance model performance and fraud detection.

Streamlined Workflow

Integrate seamlessly with DataVisor dCube or any modeling tools for immediate results.

ABOUT DATAVISOR

DataVisor is the leading fraud detection company powered by transformational AI technology. Using proprietary unsupervised machine learning algorithms, DataVisor restores trust in digital commerce by enabling organizations to proactively detect and act on fast-evolving fraud patterns, and prevent future attacks before they happen. Combining advanced analytics and an intelligence network of more than 4B global user accounts, DataVisor protects against financial and reputational damage across a variety of industries, including financial services, marketplaces, ecommerce, and social platforms.