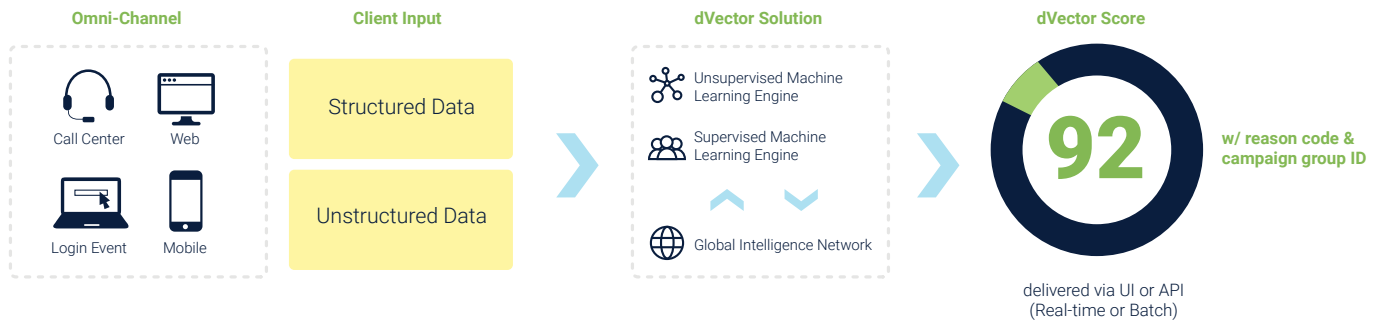# dVector
from DataVisor

About dVector

> dVector is a best-in-class managed fraud detection service powered by transformational machine learning technology. It provides optimized detection scores with clear and actionable reasons in real time so organizations can take action against known and unknown fraud before damage occurs.

dVector efficiently handles structured and unstructured data at large scale and leverages unsupervised and supervised machine learning technologies to automatically identify and categorize different types of fraud and abuse in real time.

dVector delivers fully optimized detection scores and reasons that detail how each instance of fraud or abuse was committed. Powered by DataVisor's Global Intelligence Network—comprising more than 4B global users—dVector incorporates rich fraud intelligence from across industries into machine learning algorithms that further improve overall detection.

The solution can be integrated in a matter of days and will begin to provide immediate detection results, supporting multiple use cases through a single API.

Omni-Channel
Call Center
Web
Login Event
Mobile

Client Input
Structured Data
Unstructured Data

dVector Solution
Unsupervised Machine Learning Engine
Supervised Machine Learning Engine
Global Intelligence Network

dVector Score
92
w/ reason code & campaign group ID

delivered via UI or API
(Real-time or Batch)

Capabilities

Complex Digital Data Management
Uncover and detect hard-to-surface patterns from unstructured and structured data—emails, images, and other user-generated content. Import any complex digital data to the models and unleash even more powerful predictors to accelerate decision making and increase detection performance.

Enriched Fraud Features
Benefit from the most sophisticated and comprehensive fraud features—powered by DataVisor's extensive domain expertise. dVector leverages natural language processing (NLP) techniques to dynamically derive hundreds of enriched features from IP address, email, user name, time stamp, device, transaction, and more, to build advanced fraud models.

Unsupervised and Supervised Machine Learning
Proactively detect unknown and emerging fraud by leveraging the dual powers of unsupervised and supervised machine learning. Analyze all users and events together to identify correlated groups of malicious users, sophisticated fraudsters, and bot attacks.

Global Intelligence Network
Benefit from access to DataVisor's Global Intelligence Network (GIN). The DataVisor GIN is powered by over 4B protected accounts across various industries, and it enhances machine learning engines with fine-grained fraud signals from rich digital fingerprints such as IPs, locations, email domains, devices, and more.

Advanced Fraud Analysis
Gain valuable and actionable insights from directly within the dVector UI. Produce and provide both individual and group level detection reason codes across various use cases. Visualize how users are interconnected with linkage view. Analyze fraud techniques and monitor fraud trends over time.

Seamless Integration and Maintenance
Integrate dVector in just days and begin receiving valuable and actionable results right away. Address multiple use cases through a single API. Receive professional services from DataVisor fraud experts with no additional maintenance cost. Enable both real-time and batch detection.

4.1B+ Protected Accounts Globally

800B+ Processed Events to Date

20% Average lift in detection

KEY BUSINESS BENEFITS

Proactive and Early Detection
Reduce financial losses by detecting new and fast-evolving fraud patterns with unsupervised machine learning technologies. Capture malicious accounts early, before any damage can occur.

Immediate ROI
Bypass the need for large training datasets or loss labels and start receiving actionable results immediately. Enjoy easy integration without the burden of constant re-tuning.
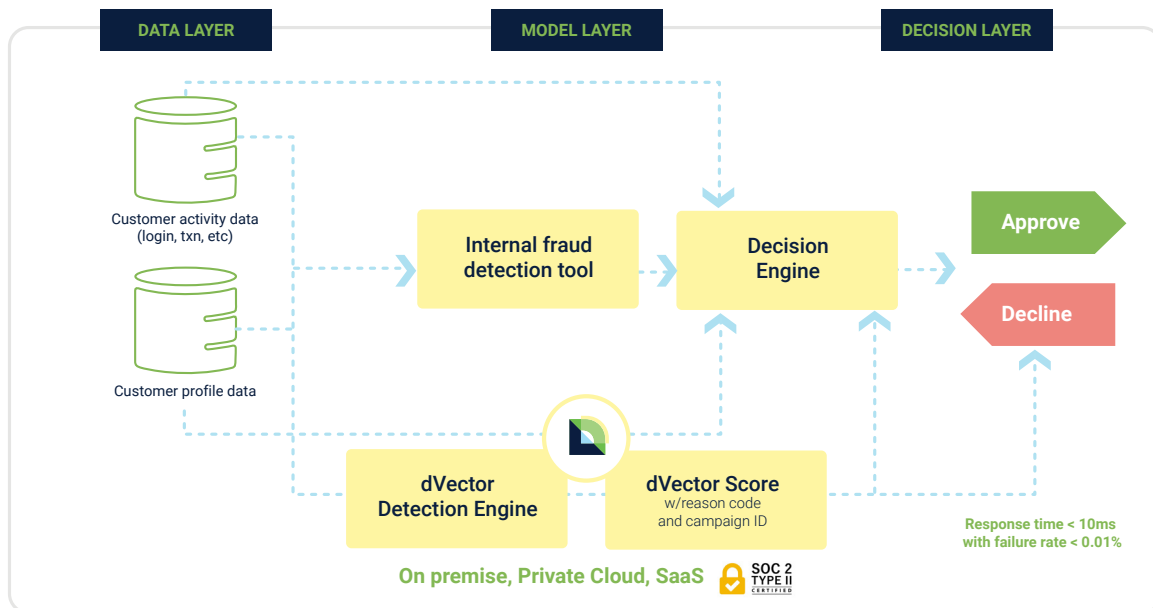
High Accuracy and Coverage
Continue to provide frictionless customer experience by lowering false positives while simultaneously increasing detection accuracy. Minimize fraud losses with average detection coverage uplifts of 20% or more.

INTEGRATION

dVector provides flexible deployment options across private cloud, public cloud, and on-premise

DATA LAYER — MODEL LAYER — DECISION LAYER

Customer activity data (login, txn, etc)

Customer profile data

Internal fraud detection tool

Decision Engine

Approve

Decline

dVector Detection Engine

dVector Score
w/reason code and campaign ID

Response time < 10ms with failure rate < 0.01%

On premise, Private Cloud, SaaS   SOC 2 TYPE II CERTIFIED

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, e-commerce, and social platforms.