TECHNOLOGY

# Industry-Leading Technologies

With the rise of deepfakes and generative AI, the only solution is to fight AI with AI. At Jumio, we continually research, develop and embed cutting-edge technologies into our solutions to stay at the forefront of fraud detection, compliance and UX. With hundreds of patents awarded and many more pending, Jumio's technology is second to none.

Fraud Detection Technology

Platform Technology

Integration Channels

# Fraud Detection Technology

**DOCUMENT ANALYTICS**

**BIOMETRIC ANALYTICS**

**DATA ANALYTICS**

**IDENTITY REPUTATION**



FACETEC EXHIBIT 2074
JUMIO v. FACETEC
IPR2025-00106

# Document Analytics

Every government-issued identity document (ID) — whether it's a driver's license, identity card or passport — has a specification that defines the layout of the document, the relative position of specified fields, labels and images, font types, color, size, spacing and patterns.

Every ID also contains a unique set of security features such as a ghost image, watermarks, holograms, microprint, chip and machine readable zones. These features can vary from state to state and country to country.

Jumio performs a variety of AI-driven fraud checks on these ID documents to ensure that the submitted ID conforms to these government templates and does not exhibit signs of fraudulent tampering, such as text and photo manipulation. Using informed AI, our advanced machine learning models can detect sophisticated attacks that are undetectable by the human eye.

For supplemental documentation, such as when banks require a utility bill for proof of address, Jumio scans the document and extracts its data. It can also perform fraud checks to ensure the document wasn't manipulated or forged.



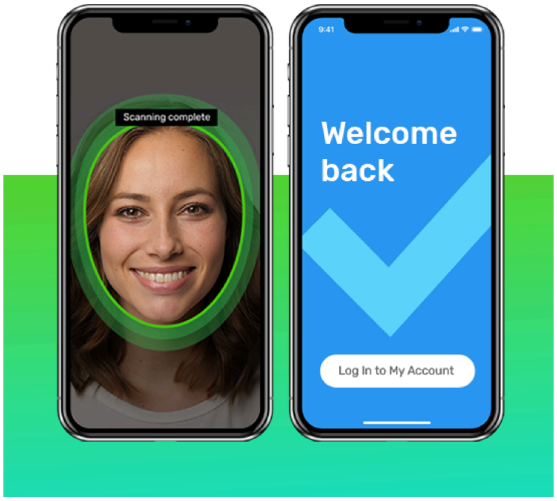

## Learn more about document fraud checks:

# Biometric Analytics

During onboarding, our face-based biometric technology compares specific facial features from the selfie — such as the distance between the eyes, nose, and ears — against those of the ID photo, ensuring they're the same person. It also performs checks such as age estimation (does the person appear to be their stated age?) and detects whether the person is wearing a mask or is sleeping.

## Learn more about biometric checks:






After onboarding, when the user returns to your platform, our biometric authentication solution can prompt the user to take another selfie and then compares it to the original biometric template to ensure this is the same person who onboarded.

Liveness Checks

Jumio's premium liveness with advanced deepfake detection is built to detect sophisticated attacks. We utilize patented active illumination to deliver enhanced protection against modern fraud, including sophisticated deepfakes and injection attacks, while providing customers with the flexibility to strike a balance between security and user experience.

For example, we can determine whether the individual submits a screenshot or paper copy of a picture (i.e., a printed photo) instead of an authentic selfie — commonly referred to as a presentation attack. We can also detect video injection attacks, which involve injecting a deepfake into the digital stream by using a virtual camera or hacking the vendor's API or SDK.

## Learn more about liveness checks:



ESSENTIAL GUIDE

**Advanced Deepfake Detection**

Learn about deepfakes and strategies to protect against sophisticated identity fraud.

Read the Guide

# Data Analytics

Jumio uses advanced optical character recognition (OCR) to extract data from the user's ID so we can compare it to the machine-readable zone (MRZ), calculate the user's age for age verification, and more. We then check the data against a wide array of industry-leading, third-party data sources to provide an unmatched level of assurance and fraud protection to businesses worldwide.



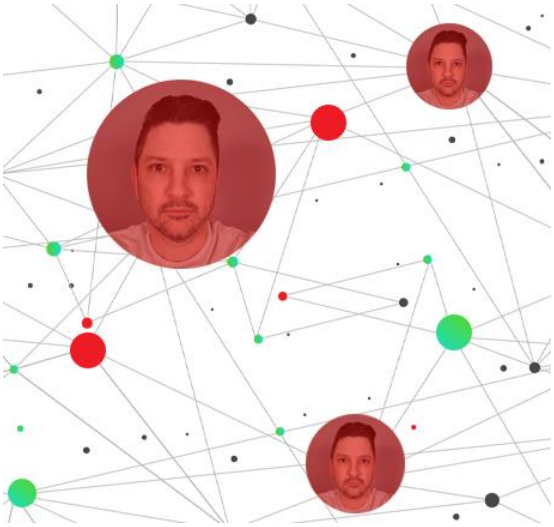
Data checks include:

- Device reputation
- Linkage between name, email, phone number, and address
- Phone number reputation
- Email reputation
- Social Security number and name verification
- Checks against politically exposed persons (PEPs), sanctions and adverse media watchlists
- Verification against local government agencies

These database lookups take place in real-time from the extracted data or as an individual completes a standard onboarding form. With device checks, the information is detected from the user's device before they've entered any information at all. Jumio then dynamically tailors the user's onboarding experience based on their risk profile, introducing additional checks only as needed and minimizing friction for legitimate users.

# Identity Reputation

Jumio revolutionized identity verification by pioneering selfie-based identification. Now, we're transforming the industry once again with a new approach powered by connected data. As part of our identity reputation capabilities, Jumio's Cross-Transaction Risk capability goes beyond traditional identity verification — which evaluates transactions in isolation — by linking identity elements across the Jumio network. This reveals patterns of both trusted and fraudulent behavior, enabling customers to detect fraud before it happens with a holistic, network-wide view of user identity.



By leveraging a dynamic blend of legitimate user and fraud data, businesses can:

- Make faster, more informed decisions with real-time, enriched insights into user identity history.
- Proactively detect and stop fraud before bad actors gain access.
- Reduce operational costs by automating detailed risk assessments, minimizing manual review and account consolidation.
- Enhance user trust by streamlining onboarding for legitimate users while preventing repeat fraud attempts.



SEE IN ACTION

## Jumio's Cross-Transaction Risk

Jumio's Cross-Transaction Risk capability helps businesses form a ring of protection to fight today's fast-moving, sophisticated fraud.

Watch the Video

# Platform Technology



The Jumio Platform provides a complete end-to-end solution for onboarding and ongoing monitoring of your users. You can orchestrate dynamic workflows that trigger identity verification, risk signals and AML screening services during the user journey based on the risk level of each user, minimizing friction for legitimate users. The real-time rules editor allows you to respond immediately to changing fraud trends. And the powerful analytics dashboard lets you easily spot trends in transactions, usage and success metrics and run detailed reports to help you maximize efficiency.

During the user journey, the AI-driven results from the various fraud checks feed into a single, unified risk score. The score calculation is configurable for your business and can be used in your workflows to trigger additional checks as needed.

One vendor. One API layer. One extremely powerful, highly secure and configurable platform. Jumio provides all of the data, business rules, orchestration, analytics and supporting tools you need to manage fraud across the user journey.

# Integration Channels

Following are the integration channels you can use to implement the Jumio user journey. To try out the user journey, download the Jumio Showcase app for iOS or Android.



### Web Client

Our Web Client makes it easy to embed the user journey into your existing onboarding workflow for a seamless experience. It provides a default user journey as a web app that runs inside a web browser on all types of devices. The Web Client provides clear guidance to your end users and manages the interactions with their camera and other device features. You can make basic customizations such as changing the colors of the screens and buttons. The Web Client is hosted by Jumio, so it requires no maintenance.



### Web SDK

If you want to fully customize the user journey and host it yourself, the Web SDK is a great option. You can stand up an instance of the Web Client with just a few lines of code and then have complete control over its look and feel, integrate it with your analytics framework, and modify the user journey to meet your needs. It's framework agnostic, so you can use your preferred IDE. You also have full control over updates and other maintenance.



### Mobile SDKs for Android and iOS

Jumio's mobile SDKs provide everything you need for a fully customized, mobile-native experience for Android and iOS. We include plugins for React Native, Flutter and Apache Cordova.



### API

The REST APIs are used for uploading credentials and finalizing the workflow. Your application can call the APIs directly when you need to control other aspects of the customer journey.

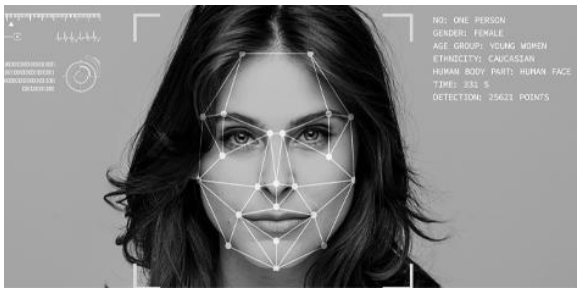


## Omnichannel Support

Jumio's omnichannel approach makes it easy for users to complete the identity verification journey on their computer, on their mobile device, or a combination of the two. This is especially important in geographies where end users often have desktop computers with older-model webcams that offer poor image resolution compared to modern smartphones. These users can start the user journey on their desktop and then switch to their mobile device simply by opening an SMS message or scanning a QR code. After taking the photos on their mobile device, they can return to their desktop computer to complete the journey.

To learn more about the integration channels, see the Jumio Integration Guide.

DISCOVER MORE




# METRICS THAT MATTER

How to Evaluate Identity Verification Technology



# Read the latest updates

from our Engineering and Data Science teams.

# Get Started

Let a Jumio expert show you how easy it can be to integrate our automated solutions into your existing processes.



jumio

| SOLUTIONS | PARTNER SOLUTIONS | USE CASES | INDUSTRIES |
|---|---|---|---|
| **Platform** | AWS | Fraud Detection | Financial Services |

Message from Jumio

**Identity Verification Solutions**
ID Verification
Selfie Verification
Premium Liveness Detection
Doc Proof
Video Verification
Authentication
Fastfill
Jumio Go
**Cross-Transaction Risk Risk Signals**
Government Database Checks
Address Checks
**AML Screening**
Azurian
Microsoft
Oracle
Sift
Prevent Account Takeovers
Age Verification
KYC & AML Compliance
User Onboarding
New Account Onboarding for Banks
Digital Identity Verification
Going Passwordless
KBA Replacement
Gaming
Sharing Economy
Healthcare
Travel
Mobility
Education
Public Sector
Telcos
Retail

FEATURES
Features
Compliance
KBA Alternatives
Compare

TECHNOLOGY
Overview
Fraud Detection Technology
Platform Technology
Integration Channels

ABOUT
Company
Careers
Leadership
Security
Privacy and Trust Center
Global Coverage
Press Releases
Media Resources
Partner Program
Partner Login
Events
Awards
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Deepfake Detection Guide
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