Written Testimony of Victor Fredung
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Before the
House Financial Services Committee
Task Force on Artificial Intelligence

Hearing on
I Am Who I Say I Am:
Verifying Identity while Preserving Privacy in the Digital Age

Friday, July 16, 2021

Chairman Foster, Ranking Member Gonzalez, and distinguished members of the Committee. Thank you for inviting me to testify before you today on this very important topic.

My name is Victor Fredung and I am the Chief Executive Officer and Co-Founder at Shufti Pro. Shufti Pro is a SaaS provider offering AI-powered identity verification services. We offer KYC verification and AML screening solutions to multiple industries including but not limited to; banks, financial institutions, exchanges, P2P, travel, healthcare, gaming and crypto firms in over 230+ countries and territories. Our state of the art IDV services empower businesses to unveil the true identity of their customers and end-users before onboarding them or allowing access to services. I'm very glad to be a part of this discussion and to speak about the significance of AI in identity verification.

ShuftiPro

What Makes Shufti Pro's Identity Verification Stand Out?

- 98.67% accurate results
- 1-2 second verification
- 230+ countries & territories supported
- 150+ languages supported
- 3000+ Identity documents supported
- 1000+ AI Models incorporated
- 7-day free trial & flex pricing
- 1700+ AML Watchlists Screening

Omni-channel Integration
Integrate Shufti Pro's Restful API and SDK to any platform effortlessly

Multi-fold Verification
Every verification that is performed by AI is cross-checked by human experts

HVP - Hosted Verification Page
Get virtually customized solution with your own logo, color palette and unique URL

Intuitive Back-office
Get complete verification report with image/video proof and geolocation data

On-premises IDV solution
Host Shufti Pro's global IDV solution on your server and verify identities in real-time.

Awards and Achievements

- High User Satisfaction 2021 *Crozdesk*
- CyberTech 100 Company 2021
- Winner, Video KYC Service *MEFTECH 2020*
- Outstanding Service 2020 *Global Business Excellence Award*
- Best Consumer Service 2020 *Best in Biz Award*
- Product Leader 2020 *Crozdesk*
- Rising Star 2019 *Compare Camp*
- Rising Star 2019 *Finances Online*
- Premium Usability *Finances Online*

Identity fraud is on the rise, as per the latest reports of FTC. According to the Aite Group, 47 percent of Americans experienced financial identity theft in 2020. The group's report, U.S. Identity Theft: The Stark Reality, found that losses from identity theft cases cost $502.5 billion in 2019 and increased 42 percent to $712.4 billion in 2020. Shufti Pro's mission is to build a safe online environment, devoid of identity frauds, by making IDV seamless and 100% accurate to fight multifaceted fraud in real-time. We serve financial businesses, facilitating them to stay compliant with the latest KYC/AML regulatory developments. As the digital ecosystem grows, it is important that businesses and customers have confidence in it

Today, I would like to discuss:

1. How identity theft is becoming a more serious crime since more people go online (covid spike)
2. How does our AI perform highly accurate verifications? How do we train our models?
3. Detecting tampered ID documents through AI-powered anti-spoofing measures.
4. Preventing identity theft with automated IDV and liveness checks
5. The challenge of data privacy in online identity verification
6. How using automated identity verification gives a higher accuracy and a more seamless user-experience
7. How Shufti Pro can help governments and businesses streamline onboarding and verification of customers

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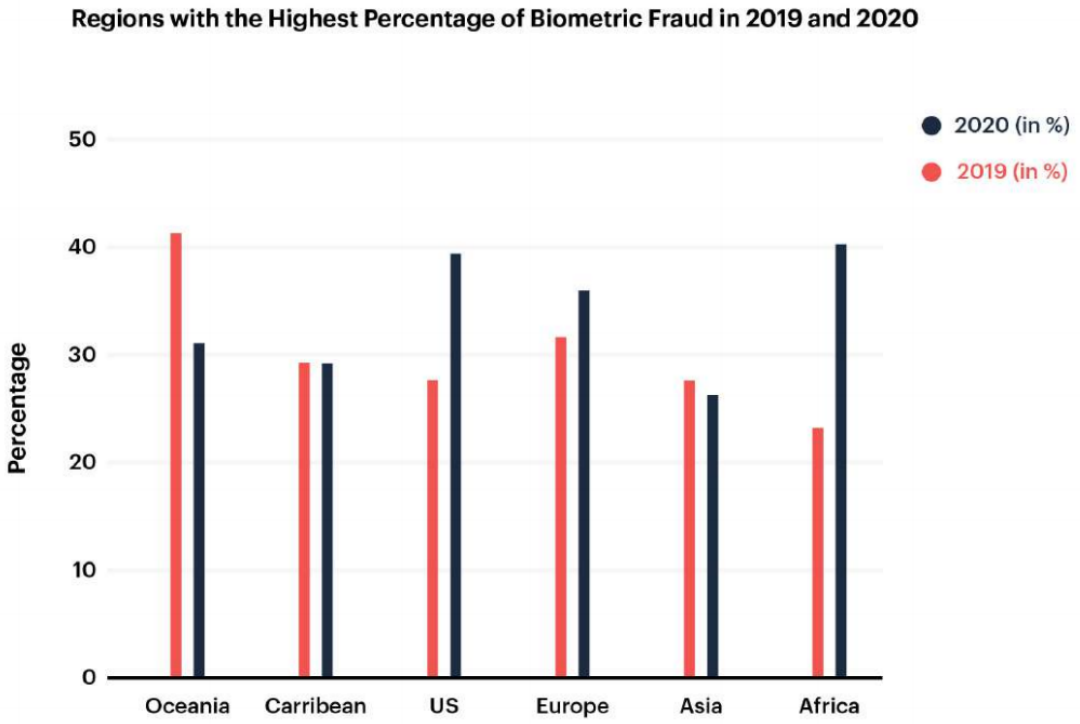
I would like to note that while the focus of today's hearing is identity verification. While fake documents and spoofing attacks are some examples of how criminals try to bypass ID checks, the majority of customers are legitimate. The major task is to integrate the advanced technology that can differentiate the compromised identities from the real ones. In 2020, Shufti Pro encountered a 3.36% rise in global identity fraud as compared to 2019. I'm afraid 2020's reported illicit activities will rise this year as with time we'll learn more about scams and frauds that have not been identified yet.

How identity theft is becoming a more serious crime since more people started going online

Year 2020 has been a year of transformation. With the emergence of COVID-19 pandemic, businesses have gone remote, shifting major operations to the digital sphere. This has provided an opportunity for cybercriminals to exploit businesses using fake identities. Over the past few months, multiple data breaches have exposed billions of personal, financial and healthcare records, resulting in identity frauds. There's a high possibility that the intensity of these frauds will increase in upcoming years.

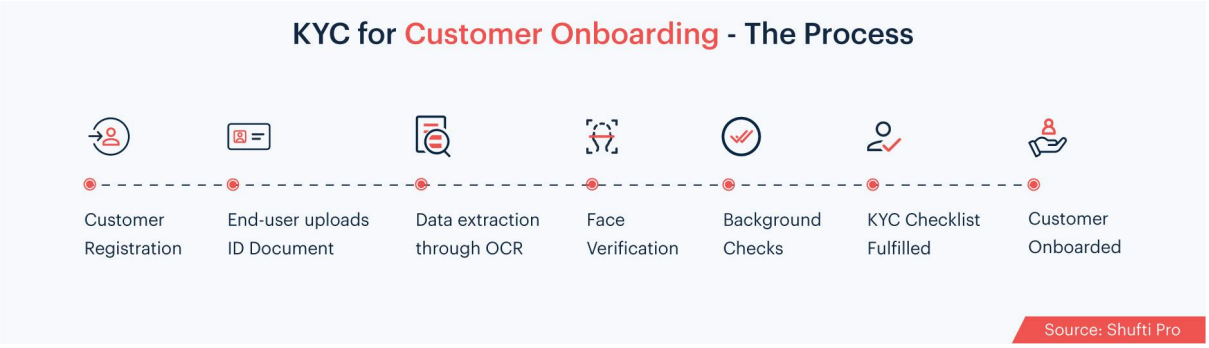
According to the FTC, the cases of identity theft in the United States doubled in 2020 as cybercriminals started taking advantage of the COVID-relief benefits offered by the government to the public. These stats are officially announced by the FTC on their website during annual 'Identity

Theft Awareness Week', in which they received about 1.4 million reports of identity theft last year. Most of the cybercriminals were targeting the government funds embarked to facilitate unemployed citizens. There were 394,280 government benefits fraud reports as compared to 12,900 reports in 2019. Such frauds involved imposters filing for unemployment benefits due to the ongoing pandemic. In fact, according to Shufti Pro's annual fraud report, the biometric fraud rate in the US was approx. 12% higher in 2020 than 2019.



This is not it, we believe this year we'll witness even more cases of identity theft. For fraudsters will become more versed in adopting sophisticated technologies to fulfill their malicious intents. In order to combat them, businesses need even more intelligent verification solutions that can unveil the true identity of an individual within seconds and that too leaving no room for false positives.

How does our AI perform highly accurate verifications? How do we train our models?



Shufti Pro's configurable IDV solutions incorporate enhanced AI technology to accurately verify the user's identity online. We train our systems by deploying thousands of AI models. We understand the risk associated with false positives, that's why at Shufti Pro we ensure that our continual models are enhanced with every new verification performed. It's an understood fact that machine learning algorithms get more accurate with every new data instance. That's the reason we incorporate AI and ML models in our verification engine. Shufti Pro takes pride in offering an industry-leading accuracy rate of 98.67%. And it's possible only because of our enhanced AI.

Businesses similar to Shufti Pro use limited or test data to train their AI models. The reason why they are unable to achieve the highest accuracy. Whereas in case of our AI, we assure to deploy continual ML models that incorporate real-time data. Not only this, but Shufti Pro synergizes human intelligence as well to back the results generated through AI. This reduces the chances of false positives and facilitates training highly efficient models. Unlike other service providers, we make sure the customer is only verified if all the ID checks are adequately met; for instance, ID document is valid and not expired, data is not forged, document template is accurate, checking for rainbow prints, holograms etc. and verifying the MRZ code as well.

Detecting tampered ID documents through AI-powered anti-spoofing measures

We all witness people using fake ID documents at some point, for instance teenagers using them to enter the club, adults using them to file for government relief programs etc. In the digital space, using fake or stolen ID documents has become more than common. Though businesses have started incorporating IDV checks to authenticate users before allowing access to online services or onboarding them, the majority of these checks are not capable enough to catch the spoof attempts. Tampering with identity documents and creating fake or synthetic ID documents are the most common strategies that imposters use to bypass identity verification checks.

Criminals these days are technologically advanced and ensure to tamper the documents in such a way that makes them almost undetected. But all thanks to AI-powered anti-spoofing measures that are specifically designed to identify professionally forged or synthetic documents. We utilize various anti-spoofing techniques to detect tampered documents, and that too within a fraction of seconds; no long waits!

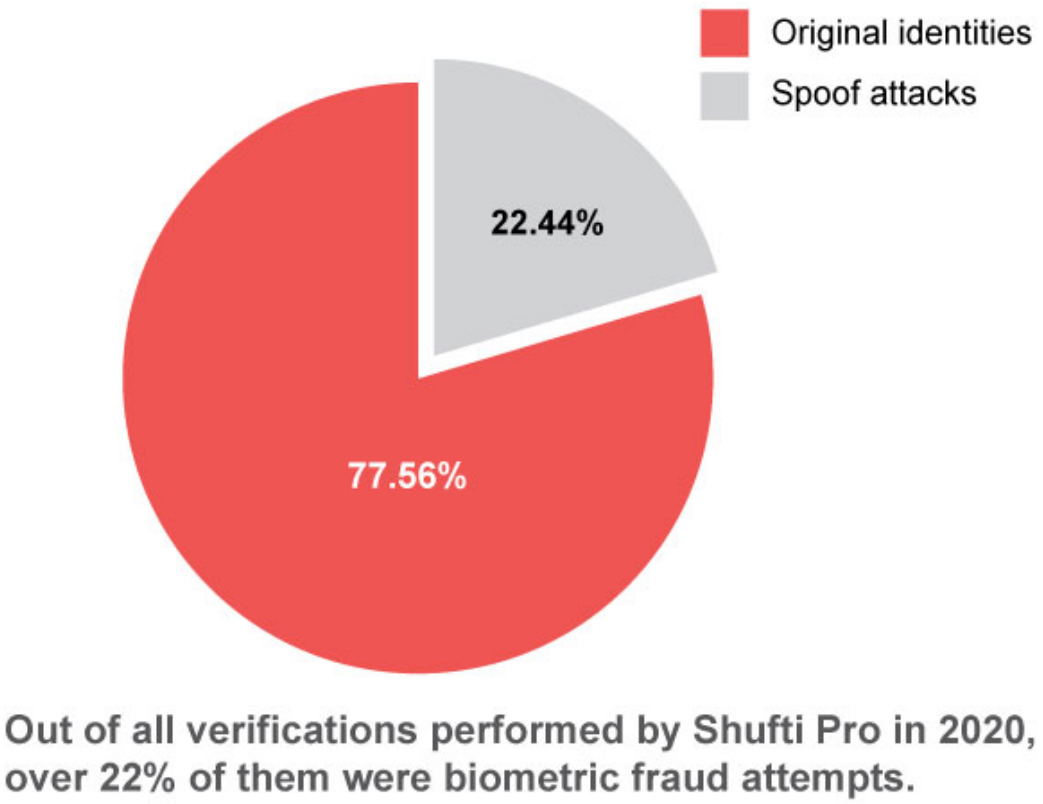
With techniques such as pixel detection, filtering lights, hologram detection, our AI-powered identity verification engine can seamlessly detect any manipulations done to a document. For instance, if a criminal photoshops the date of birth on the ID document, through pixel detection technique, it can be identified. Moreover, our system also reads the data from the MRZ code and that data is matched against the information printed on the ID card to check for any manipulations.

These are few ID card manipulations that Shufti Pro encountered while verifying ID documents in 2020.

In 2020, over 19% of the document verifications performed by Shufti Pro were flagged because fake, doctored, stolen or synthetic identity documents were submitted during the identity verification process. And this year, we believe these stats to rise.

Preventing identity theft with automated IDV and liveness checks

While criminals have developed sophisticated methods of messing with identity documents, biometrics are still considered secure for ID authentication. Criminals are adopting new ways to spoof biometric verification tools. We believe these spoof attempts can be prevented with our automated IDV solution incorporating 3D liveness checks. Many times, criminals try various facial spoof attacks, such as 2D and 3D masks, eye-cut photos, screenshots, and video replays. The majority of biometric fraud attempts captured by Shufti Pro in 2020 were 2D and 3D spoof attempts. The end-user either displayed a paper-backed photo or took a photo from the screen of another device.



Automated IDV leverages 3D liveness checks such as 3D-depth perception, micro-expression analysis, 3D AI mapping etc. By using 3D mapping, Shufti Pro detects the 3D angles and minor facial movements to ensure the presence of a real person. It ensures to check for relevant markers for liveness detection. Those relative markers consist of checks for eyes, skin texture, photoshop, age and hair colour differences. Its deep machine learning algorithm makes sure optimal micro expression analysis is conducted through adequate data comparison. Referring to a computational algorithm, various points on the picture are matched to that of a previously digitized template. Shufti Pro's liveness detection shows an individual's live presence and prevents facial spoof attacks as well.

The challenge of data privacy in online ID verification

Whenever asked for proof of identity or age, be it a driving license, ID card or a passport, we present a wealth of personal information; for instance, name, date of birth, address, signature, etc. In this age, data is a goldmine for cybercriminals. User's information, if gone in wrong hands, can cause destruction not just for individuals but the businesses as well. Data breaches are common in the digital world. In 2020, 75% of large companies in the UK reported data breaches. The global pandemic has witnessed the surge in personal information online as more and more businesses are shifting their operations online and people are turning to these services in turn.

However, the majority of the people are still reluctant in adopting digital identities and getting themselves verified digitally. Even though we all know that signing up for a new bank from the comfort of home is much more convenient and quick with real-time ID verification. The concern for data privacy and protection is what's hindering digital IDV to become widespread. Keeping this concern as our priority, our AI-powered ID verification solutions strictly follow data privacy standards to secure consumer's data. Using the services offered by Shufti Pro, our clients' end-users can have complete control over their data. We are GDPR and PCI-DSS compliant, following proper data encryption and security standards.

How using automated identity verification gives a higher accuracy and a more seamless user-experience

Customers are the true assets of any company, and customer experience plays a vital role in defining the customer-business relationship. Over 60% of US consumers prefer an automated self-service, such as a website or mobile app, for simple customer service tasks. We at Shufti Pro strive hard to offer a great customer experience to boost customer acquisition. With automated identity verification in place, customers don't need to put manual effort and wait for days and weeks to get their identity verified. All AI-powered IDV tools required is for the customer to show their face and identity document in the camera and the system does the rest. Unlike traditional verification models, the automated ID verification system by Shufti Pro utilizes intelligent OCR technology to automatically extract data from the document, and performs verification real-quick. This leaves no room for human glitch and the higher accuracy is assured. Moreover, we synergize human and artificial intelligence to reduce any chances of false positives.

How Shufti Pro can help governments and businesses streamline onboarding and verification of customers

Living in the digital world, the current legacy solutions used by the government institutions to verify user identities and combat identity thieves are falling short. And some digital solutions require users to upload scanned copies of their identity documents and wait till the experts on the other end verify them manually. This can be time-consuming and tedious. Moreover, storing personally identifiable information (PII) in one location can raise security and privacy concerns due to ever-growing data breach incidents. Not to forget that these identity documents can be forged or manipulated that are most of the time unidentifiable. Government agencies need to implement intelligent digital IDV solutions that are developed using AI and ML models and follow strict data privacy guidelines. That's where Shufti Pro comes in.

With Shufti Pro's identity verification solution on the frontend, government agencies can provide fast and secure checks to allow access to services and combat the massive identity fraud. We utilize artificial intelligence to provide a sophisticated and frictionless workflow that would not only authenticate the individual's identity but also identify the risks associated with the user-claimed identity in real-time through screening against 1700+ global watchlists, sanctions and PEPs. Moreover, we understand the importance of consumer data, that's why we offer an on-premises

identity verification solution that you can host over your own servers and have complete control over the consumer data.