

The challenge

Even with lower check-processing times due to electronic payments and automated clearinghouse (ACH) transactions, banks must still manually verify millions of handwritten checks. Annually, banks risk losing millions as a result of check fraud by counterfeiters. Because a percentage of the funds is made readily available to the depositors, it's critical to identify counterfeit checks quickly. To reduce the incidence of check fraud, a global bank partnered with Cognizant Digital Business to build a solution based on artificial intelligence (AI) machine learning to speed up check verification and lower costs.

Our approach

To meet the bank's goals, our solution needed to identify fraudulent checks in real time, as well as reduce the number of checks requiring manual review. The bank already uses optical character recognition (OCR) and deep learning technology to scan checks, process data and verify signatures. Our model, based on Google TensorFlow™, uses a neural network to parse a historical database of previously scanned checks, including those known to be fraudulent.

Our [banking AI solutions experts](#) trained the neural network to use a set of comparative algorithms to distinguish good checks from anomalous ones. By automatically comparing various factors on scans of deposited checks to those in the database, our model flags potential counterfeits in real time. It assigns a confidence score to each scanned check, flagging it as good, fraudulent or needing further review. Our solution is scalable and configurable to the client's evolving needs.

Banking

Machine learning solution reduces check fraud.

Counterfeiters constantly develop new techniques to perpetrate fraud in financial services. Our [AI solution](#) operates with near human intelligence to counteract the counterfeiters and reduce losses. Every transaction the model processes increases its accuracy of detection and adds to its enormous repository of historical information, so it's continually learning the practices of habitual fraudsters to defeat them.