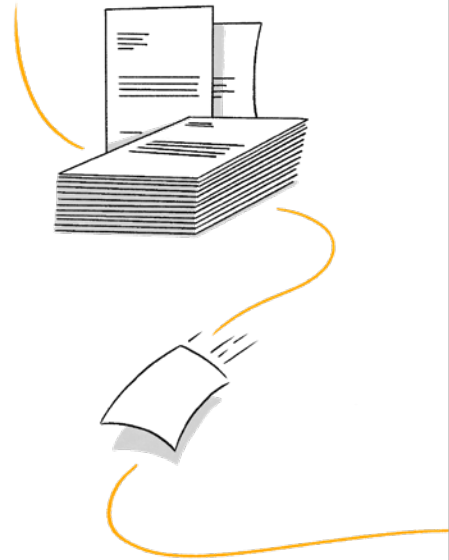




Automated document verification thanks to artificial intelligence

When a credit card is issued, there are various documents that need to be checked. First, there is the credit card application and the associated ID documents. On top of this, with a lot of credit cards the cardholder can arrange an option to pay by instalments in addition to the standard contract. This allows them to pay bills with partial instalments. To do so, applicants need to complete an additional form, which Visa employees must then check for completeness. It's a monotonous, manual process. To speed things up, Visa has developed a programme for automated document verification using AI.



Why do by hand what a machine can do? The manual checking of credit card application forms and other documents is often a time-consuming, repetitive process that nevertheless requires a high level of attention. Not very exciting, and tiring in the long run. This also applies to the instalment option form. Checking a single document doesn't take very long, but if a major migration is pending and several thousand applications suddenly need checking every day, the volume of documents to be checked

Internal software development based on AI

At the beginning of 2023, an interdisciplinary team at Viseca, consisting of experts from the fields of data science, process management, IT and operations, took on this challenge. The aim was to develop a programme for the fully automated checking of instalment option forms. The key challenge here: how does the software distinguish between the necessary handwritten information – place, date and signature – and other handwritten notes that are prohibited? The solution was a combination of computer vision, the automated comparison of an existing document with predefined templates and a YOLO model for recognising objects in images (see illustration).

The first prototype was ready in a few months, and it exceeded all expectations – after a short test phase, the programme has been in productive use since the end of August 2023. Tens of thousands of forms have already been successfully checked. This has not only enabled us to significantly improve the processing of forms as part of the card application process, but also and in particular to reduce our employees' workload. Instead of manually checking documents, they can now spend more of their time where it really adds value – serving our customers.

can quickly become overwhelming.

The required check is very simple: has the customer added handwritten notes or crossed out passages? Then the contract is invalid. If nothing has been changed and the document is signed, including date and location, then the instalment agreement is valid. A few clicks, a glance at the document – and the check is done. An ideal case for automated data verification based on image recognition and artificial intelligence.

