Mantica machine learning enhances TAS Group software

The acquisition of the Italian startup specialized in AI has allowed TAS to enrich its financial and payments solutions, vastly enhancing the services delivered to the end customer.

Amedeo Borin, CEO of Mantica, explains the many ways that advanced analytics, artificial intelligence and machine learning can be leveraged by financial operators. From deepening customer knowledge, forecasting behaviour and lowering risk to speeding up and improving decision-making, these technologies have the power to optimize revenue and reduce costs, adding significant value to the business.

The world of finance and payments is characterized not only by its considerable technological and regulatory complexity, but also by the significant number of variables that affect the various processes. At the same time, all operators in the sector share specific needs: fast response times, and effectiveness and efficiency in their actions. To achieve this, concrete help can come from artificial intelligence and machine learning solutions. Such intelligent solutions are able to find the correlations existing between different data sources and carry out automated response actions, allowing banking operators to have more efficient, better performing services and applications, to the benefit of the end-user.

Mantica's experience

TAS Group, whose mission is to deliver advanced software solutions for cards, payment systems and financial markets, has demonstrated a solid conviction in predictive analytics technologies, starting with the acquisition in 2019 of the AI specialist startup, Mantica. Since then, several TAS software solutions have been optimized with the machine learning models created by Mantica which, even before the acquisition, could boast a consolidated business model.

"The company was founded about ten years ago as a startup and always had data enhancement in advanced analytics at its core, the use of innovative technologies such as machine learning and intelligence. We have created end-to-end technology which entire automation process to create machine learning models, support and enhance the end customer's applications," explains Borin, CEO of Mantica.TAS Group solutions allow you to configure products and get them quickly out into the market, also providing necessary tools for managing subsequent aspects and activities changing the spending limit or blocking the card, sending the PIN via the telephone, the virtualization of the card for use from the activation of new services, and much more.
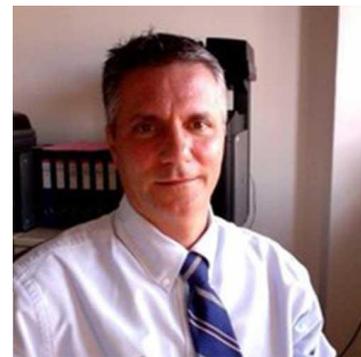
Amedeo Borin
CEO of Mantica

How the models work

These models, after having been suitably trained, are able to intercept the continuous variations of an observed phenomenon, which traditional systems are unable to do. The fine-tuned model is nothing more than a software object which is interrogated via API by existing applications, making it possible to respond in real time. It therefore becomes possible to assign, for example, a score on the probability of fraud for a given payment transaction. "From the moment we have the data available, we are able to produce the trained models in 4-6 weeks. This is a very short time, considering that these models have their own validity and accuracy that is already verifiable in the field. A machine learning model, however, does not have a life of its own; it must be inserted into a production environment, typically one where our customer's products or services are running. Naturally, in this way we enter an area that is less under our control. Particularly in the enterprise and banking world - due to testing, simulations and the various regulatory obligations - effective onboarding can also become considerably longer".

TAS solutions integrated with machine learning

In the security field, TAS Fraud Protect allows the timely identification of anomalies in the use of payment instruments, both card-based and account-based, enabling the carrying out of investigations and appropriate interventions in the event of suspected or ascertained fraud. The solution also allows real-time interaction with the customer's environment, be it a PSP, TPP or Merchant, and the use of advanced predictive engines to support Transaction Risk Analysis. Another service that leverages Mantica's adaptive intelligence is TAS Harmonizer Hub (Account Aggregation Service in real time) which enables analysis, interpretation, reconciliation and harmonization of bank codes and descriptors, thus ensuring a homogeneous interpretation of data, with possible positive effects also on the detection of suspicious transactions. Marketing decisions (and more) are supported by TAS Payment Intelligence, which allows the extrapolation of powerful behavioural and predictive models, offering a 360-degree customer view. No less important is TAS Sanction Screening for Service Bureau, which can be used for anti-money-laundering and countering the financing of terrorism obligations by identifying any suspicious actions: the software provides matching services (Match & Proximity Indicator) based on International Sanction Lists (OFAC, EU, UN).

How machine learning is meeting today's needs

But what is really driving machine learning in finance and payments? "The main market value for the financial world has historically been customer knowledge, whether individuals, merchants or companies. Machine learning helps to amplify this knowledge, allowing two types of issues to be addressed: the first is risk management, the second is the improvement of market offerings. For example, in the credit field, in addition to the applicant's financial exposure, banks could assess the economic feasibility of the loan request with greater knowledge of the facts. More generally, financial actors do not explicitly require the introduction of machine learning but, rather, the ability to detect information that may have, until now, escaped. It is no coincidence that our contacts come more from the business side rather than from IT. With this in mind, our technology allows us to be very agile and extremely adaptable to customer needs," concludes Borin. What's next? Mantica and TAS are exploring the possibilities of applying quantum computing in the context of fraud protection, thanks to a collaboration with the University of Verona. Watch this space.