zenitech

Case Study

Data validation automation

Customer	Location	Industry
Granit Bank	**Hungary**	**Banking**

Creating an automated system to increase bank account application and update efficiency

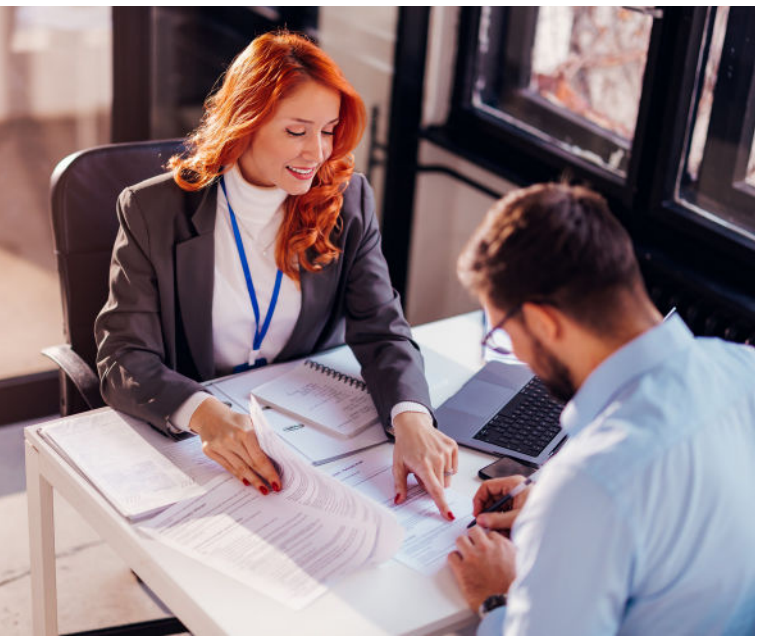
Zenitech worked with the Hungarian Granit Bank (the first digital bank in Hungary, to create a modern, flexible, automated system that would increase the efficiency of its data validation process.

Automating data validation

Setting up a new bank account means gathering location and identity details – and, of course, sometimes people need to change their ID and location information. Granit Bank's problem was that all these details were being captured by hand, making information gathering susceptible to human error. To remedy this, the bank had other people verify the data before it entered the system.

Granit recognised an opportunity to automate data recognition as proof of identity needed to be scanned into the system. So, it tasked Zenitech with creating an automated system to extract relevant data from ID and location card images.

The project completion was four months, with an accuracy rate of over 90%.



The Zenitech approach

Zenitech's team of three data scientists worked closely with Granit Bank's lead data scientist via email and Microsoft Teams.

Our team used agile engineering and tools to manage the project. The operating system used was Linux, and Python was the programming language, with OpenCV for computer vision algorithms.

The development team took a solution-oriented approach, focusing on the functionality and processes that would benefit Granit Bank's specific circumstances and infrastructure. Our solution was to create an API for exposing card data recognition algorithms in a way which makes integration with other banking systems straightforward.

Features included identity and location front and back processing. The team used a SIFT feature-matching algorithm for card detection and trained and used an OCR neural network to recognise card fields.

A custom template matcher solution framed card fields. We also created a post-processor, which used field-related domain knowledge to fix minor errors.

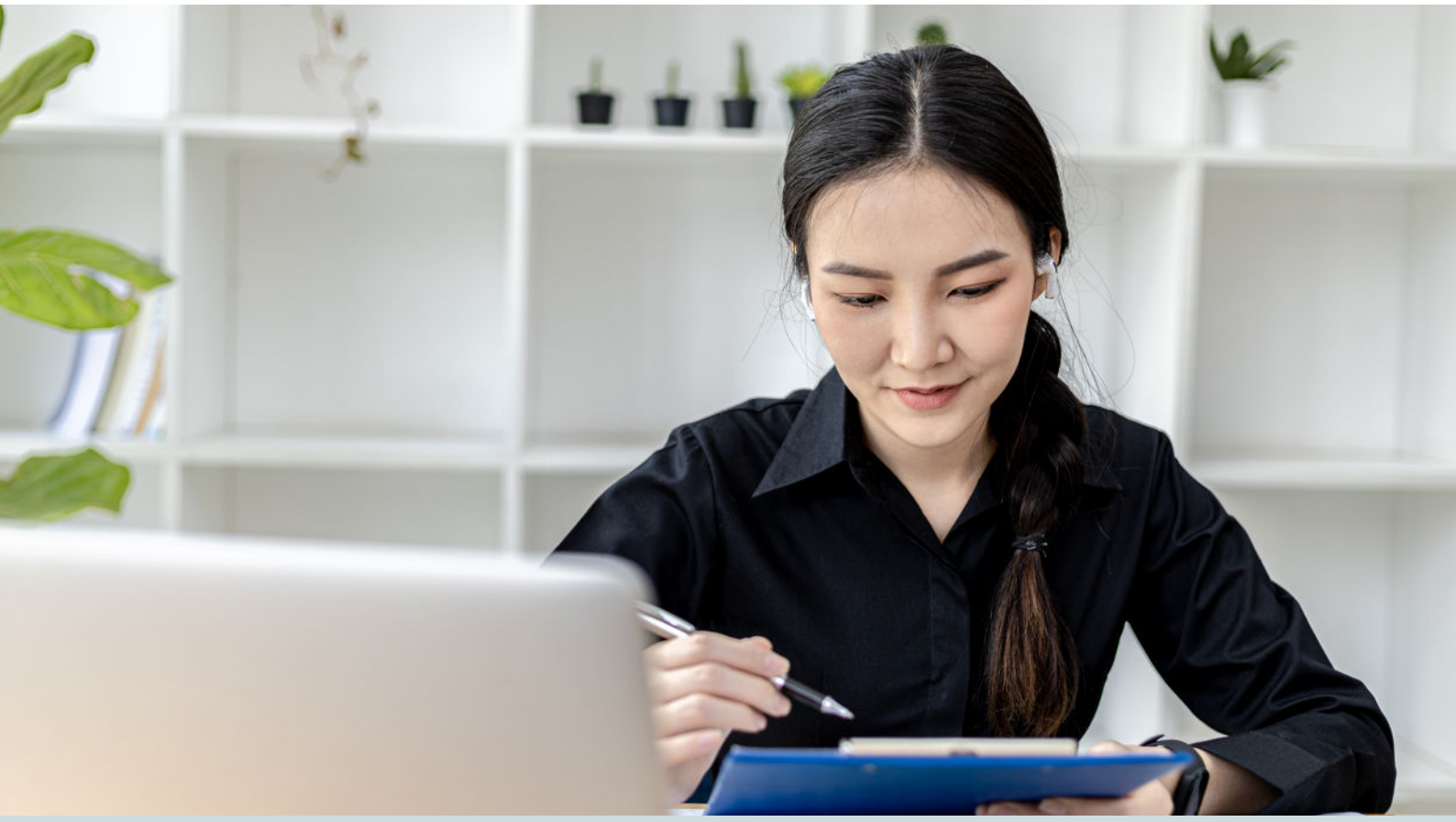
An efficient data management system

We launched the proof of concept in July 2021 with around 40 reviewer users.

Due to some issues with collecting training data and a few communication issues, the project was extended by a month but came in on budget.

Implementing the new system notably enhanced the efficiency of the account registration and update process, showing significant gains in productivity and reducing the need for manual review by approximately 50 per cent.

The project's success hinged on the excellent collaborative relationship Zenitech's team had with Granit Bank's team, as well as the well-planned data acquisition for the OCR development and the team taking time to clearly define any potential problems and understanding the need to be flexible and adapt plans when needed.



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