

## CASE STUDY

# Digital Transformation of a Realty Company Looking to Optimize Data Collection



### OVERVIEW

The client is a leading realty/housing domain company with an efficient data collection process in place.

### CHALLENGES

During open house events organized by agents for a property, interested buyers would put their visiting cards into a glass jar. The data from these cards was manually entered into the lead database by a data entry operator, which was a time-consuming and error-prone process. The client sought a more efficient approach to digitizing data. Accuracy was also a major concern.

#### INDUSTRY

- Realty
- Digitization

#### SERVICES

- Data Warehouse
- Data Orchestration
- File Transfer Services
- OCR

#### TECHNOLOGY

- Azure Data Factory
- Azure Cognitive Services
- Azure Machine Learning
- Azure Blob Storage



## SOLUTION

To address the issue, Contata implemented an AI-based smart optical character recognition (OCR) algorithm, capable of recognizing characters from images or handwritten notes. This algorithm detected characters on contact cards, saving the associated number in the contact list. Additionally, it validated emails and phone numbers against an external API.

The solution utilized a pre-trained Azure OCR model from the Azure Cognitive Services module, capable of handling both handwritten and different font characters, even in low-quality images. All card jars submitted to the data-entry operator were captured using a mobile camera and uploaded to Blob storage on the Azure cloud.

The images underwent pre-processing, which included quality enhancement techniques, such as thresholding, Gaussian blur, erosion, and dilation to remove obstructing lines and background noise.

Rotation and translation errors were also corrected, placing characters at 0 degrees to the paper plane and at the center of the image. The processed image was then sent as a batch to the Azure OCR API to extract information like person's name, phone number, and email, which is subsequently submitted to the CRM API after validation.

## BENEFITS

- Achieved 99.9% accuracy compared to data entry, significantly reducing typos and errors.
- The automated solution ensured high accuracy, and the captured data was validated using third party APIs.
- The solution component was fully dynamic and efficient, requiring no monitoring and eliminating the need for a data entry operator.
- Language support was present, allowing the detection of text from various languages and ensuring accurate data capture, surpassing the capabilities of data entry.



## About Contata

Contata Solutions is a trusted leader in technology and digital innovation. Through our work in data engineering, data analytics, machine learning, marketing automation and app development, we deliver solutions that address complex problems in ways that are simple, insightful and impactful.

Our promise and value proposition to our customers is simple: we leverage our deep technical expertise and global presence to bring software products and data-driven decision capabilities to life.

Founded in 2000, Contata is a privately-held company headquartered in Minneapolis that serves clients globally from offices in the United States and India.