



Future is about AI and we are here  
to help you answer tomorrow's questions, today.

[www.ovanya.com](http://www.ovanya.com)



# Ovanya

Ovanya, founded in 2021, is the first company of its kind in Kurdistan to focus on developing AI-powered solutions to your business problems. We pride ourselves in our ability to bring together a unique mix of data science capabilities and technology expertise across the big data ecosystem, including cutting-edge computer vision, natural language processing, social media analysis, robust recommendation systems, web tracking, and insightful data analysis. Since its inception, Ovanya has established itself as a reliable and innovative provider of AI services, with a proven track record of delivering customized, effective solutions for a variety of clients in different industries.

# Services

## Computer Vision

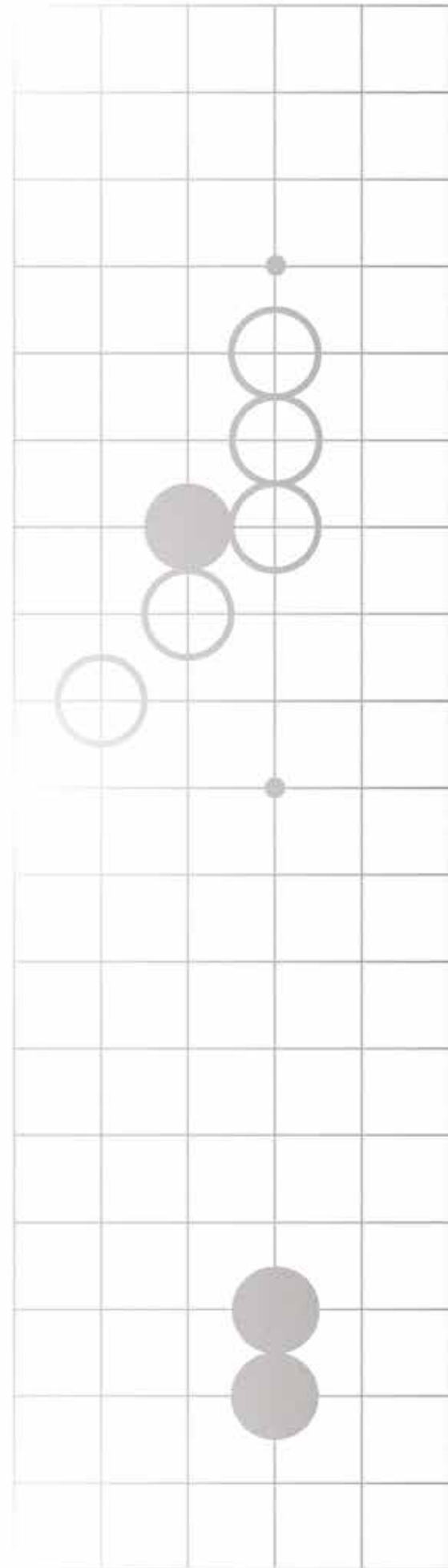
- Text recognition and document layout analysis.
- Detection and classification solutions.
- Video Content Analysis.
- ANPR Systems.

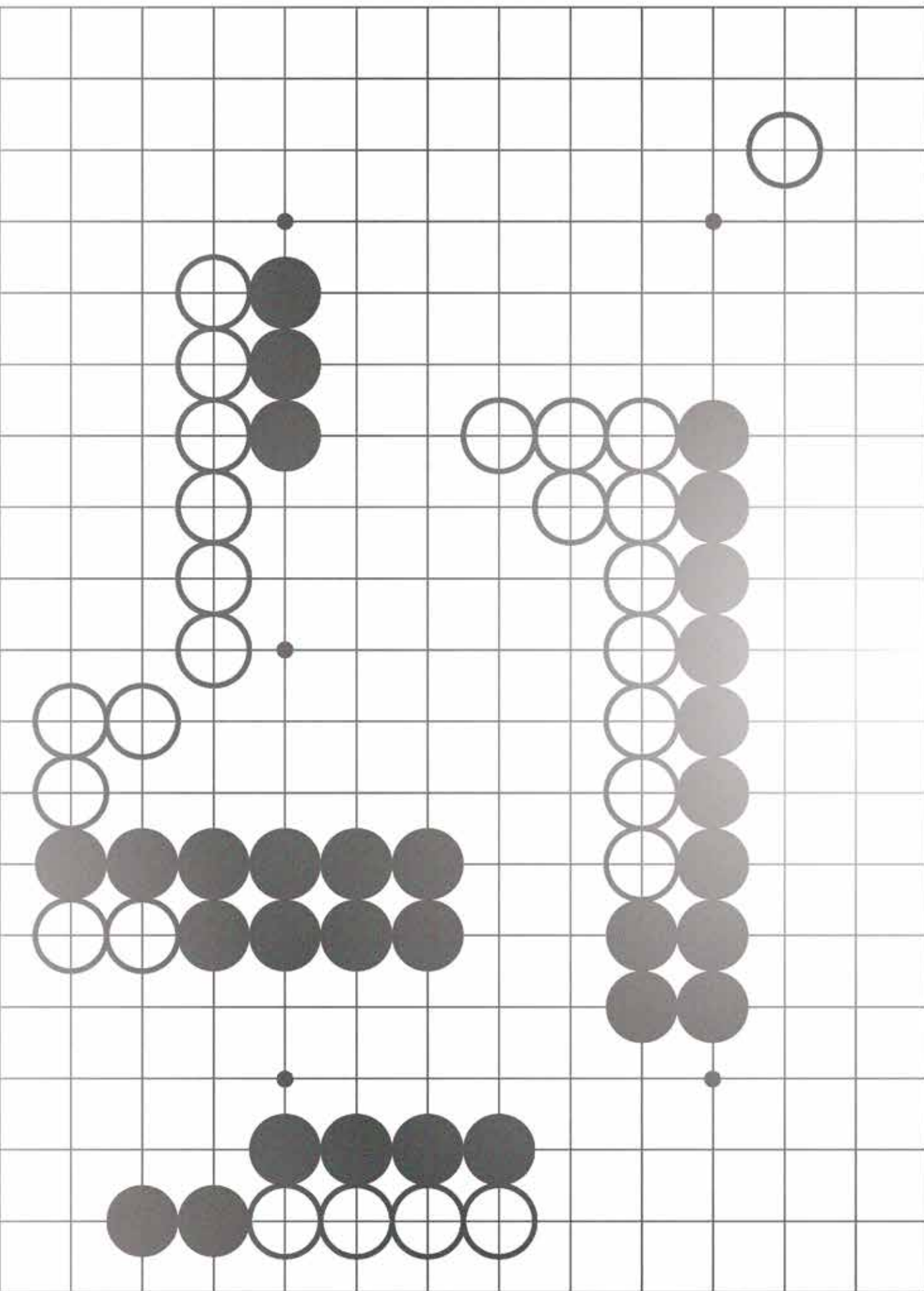
## Natural Language Processing

- Spell checker.
- Semantic search engine.
- Topic detection.
- Sentiment analysis.
- Key phrase extraction.

## Analytics & Data Visualization

- Data and statistical analysis.
- Time-Series forecasting.
- Recommender system.
- Interactive data visualization.
- In-detail reporting.





# Computer Vision

At Ovanya, we leverage visual information in the era of data explosion by developing Computer Vision applications focused on deriving meaningful information from visual inputs, like images and videos, at a scale and speed impossible for humans. Our experience in this domain allows us to provide our clients with solutions tailored to their specific scale and performance needs. Object detection, tracking, recognition, pose detection, along with many others, are among the computer vision services we offer.

## **Person Re-Identification**

With the help of our person re-identification solution, you will be able to associate images of the same person taken from different cameras or from the same camera on different occasions. This provides you with a convenient way to search for a particular individual inside multiple video streams without having to review hours and hours of video footage.

In scenarios when multiple cameras are being installed around a shopping mall, parking lot, university, or any other location and you want to ensure security, you will be able to follow the path that a person is taking and make sure nothing illegal or inappropriate is done.

## **Video Analytics**

Our video analytics services use advanced algorithms and machine learning to monitor, analyze, and manage large volumes of video. Our solutions can process video in real-time and transform it into intelligent data. They automatically generate descriptions of what is happening in the video (metadata) and are used to detect and track objects, which could also be categorized as persons, vehicles, and other objects in the video stream. This information forms the basis on which to perform actions, e.g., to decide if security staff should be notified, or if a higher quality recording stream should be used. Video analytics turns simple video data into insightful information.

examples of video analytics: people counting, recognizing license plates, counting vehicles, tracking pedestrians, and monitoring traffic.

# Natural language processing

Natural language processing (NLP) is an area of computer science and artificial intelligence concerned with the interactions between computers and human languages. In particular, how to program computers to process and analyze large amounts of natural language data.

We provide cutting-edge, world-class NLP tools supporting languages such as Kurdish, Arabic and English that are capable of performing a wide variety of operations on texts, including but not limited to text classification, entity recognition, and sentiment analysis.



## Text analytics

Part of our NLP services is analyzing customer interactions, such as social media reviews or brand name mentions. This helps brands figure out how well a marketing campaign is doing and track trending customer issues. Other ways that NLP helps with text analytics are keyword extraction and finding patterns in unstructured text data. This gives brands deep insight and understanding into the text data associated with their organization.

Text analytics is the process of deriving high-quality information from text. It is a relatively new field that comes with a set of applications and benefits:

- **Text classification** can be used for a variety of things, such as categorizing emails as spam or not, or denoting whether someone is interested in a product or not.
- **Sentiment analysis** to extract subjective qualities like attitudes, emotions, sarcasm, and confusion from text. It can be used to analyze reviews, social media posts, or any other written feedback.
- **Named entity recognition (NER)**, also known as entity extraction, is a process of identifying and categorizing inputted text strings as useful entities. NER can identify entities like 'Erbil' as a location, 'Ahmed' as a man's name, 'Thursday' as a day of the week, or 'BMW' as a car model.

## **Predictive text**

With this service, we'll bring the ability to predict desired texts to your machines. This includes features like autocorrect, autocomplete, text summarization and chat bots. You'll be able to use these tools to create a more efficient and user-friendly experience for your customers.

For example, predictive text or autocomplete works as a "typing helper tools" to predict the word you are most likely to use next, or something like a search engine to predict your next phrase. this function of Predictive text makes it easier and faster to type on devices by suggesting and automatically completing words based on the letters that have been typed.

Another example of predictive text is text summarization. This is the technique of generating a useful summary of a long text by focusing on the sections that convey useful information, without losing the overall meaning. Automatic text summarization, which is a subfield of NLP, aims to transform lengthy documents into shortened versions. This could be difficult and costly to undertake if done manually.





# Real-time data analysis

Ovanya provides Analytics services and solutions for Real-time and Stream Data Ingestion, processing, and analyzing the data streams quickly and efficiently for the Internet of Things, monitoring, Preventive and Predictive Maintenance. Real-Time Big Data Analytics Services for Enterprises include the below services for enabling real-time decision making, clickstream analytics, fraud detection, personalized User Experience, and recommendations.

# Business intelligence

In practice, every company has data, such as internal performance data, customer purchase data, market analysis data, and sales data. It can be in the form of structured data, like financial reports, or unstructured data, like customer reviews and social media posts. And that information should be used to improve business growth under a technique called Business Intelligence (BI).

There are many benefits that companies can experience after adopting business intelligence into their business models, including but not limited to faster and more accurate reporting and analysis, improved data quality, reduced costs, increased revenues, and the ability to make better business decisions.

We use modern BI tools, like:

**Spreadsheets:** While spreadsheets are commonly used as a basic daily reporting tool, they have a wide range of applications and can be very helpful in organizing and analyzing data.

**Reporting software:** Reporting refers to the process of collecting, organizing, filtering, and displaying data in a way that is easy to understand. This can be done using various software programs or through manual processes.

**Data visualization tools:** visualizing data, in purpose to get the ability translating complex datasets into easy-to-read, visually appealing graphical representations. By visualizing data, you can quickly gain insights and understanding that would otherwise be hidden in raw data.

**Data mining tools:** Using powerful BI tools and programming languages to mine large amounts of data to find patterns using things like artificial intelligence, machine learning, and statistics.





# KOCR

KOCR is a service that detects and extracts text and data from scanned documents and now it is available to be applied in any application. KOCR is an acronym for Kurdish Optical Character Recognition. It is the future of archiving Kurdish documents and books. KOCR makes it easy to quickly and accurately extract data. With our custom-built document layout analysis services, you can extract data from forms and store them in databases.

The following are some of the features of KOCR:

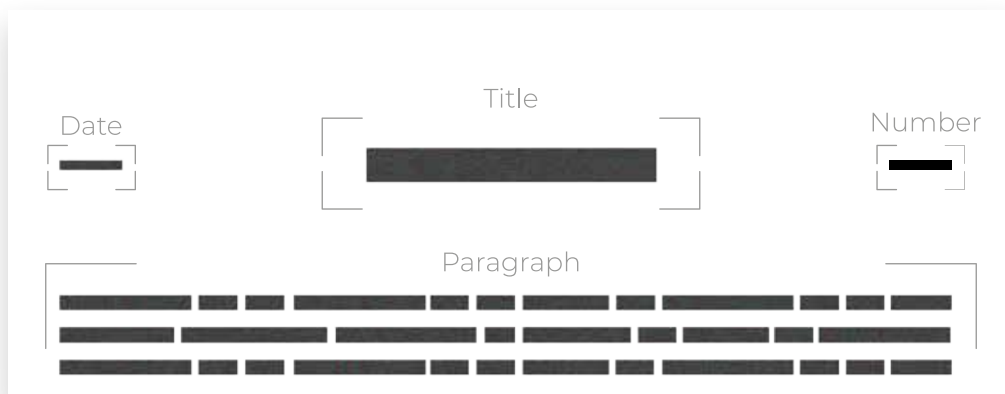
- Supports only printed documents, although it recognizes handwritten digits accurately.
- Our OCR supports Document layout analysis
- Easily adaptable to new fonts.
- Uses document denoising when necessary.





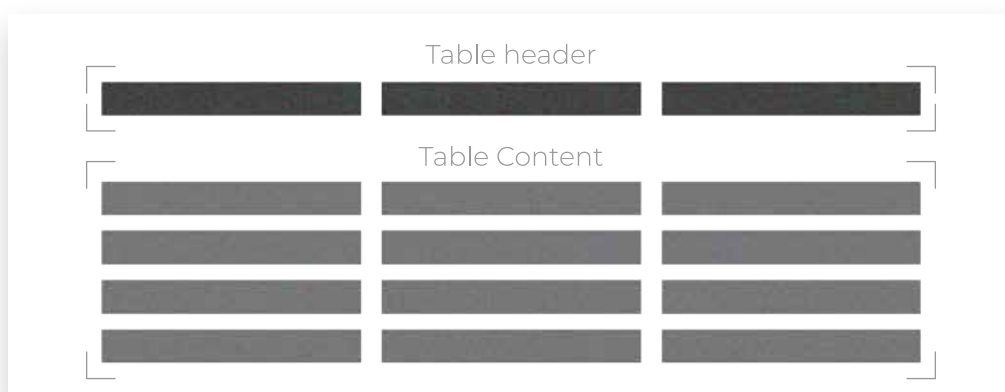
## Document layout matching

Document Layout Analysis (DLA) helps KOCR automatically identify regions of interest in scanned documents or text documents. Through DLA, you can extract text from different segments such as titles, captions, footers, headers, signatures, stamps, etc.



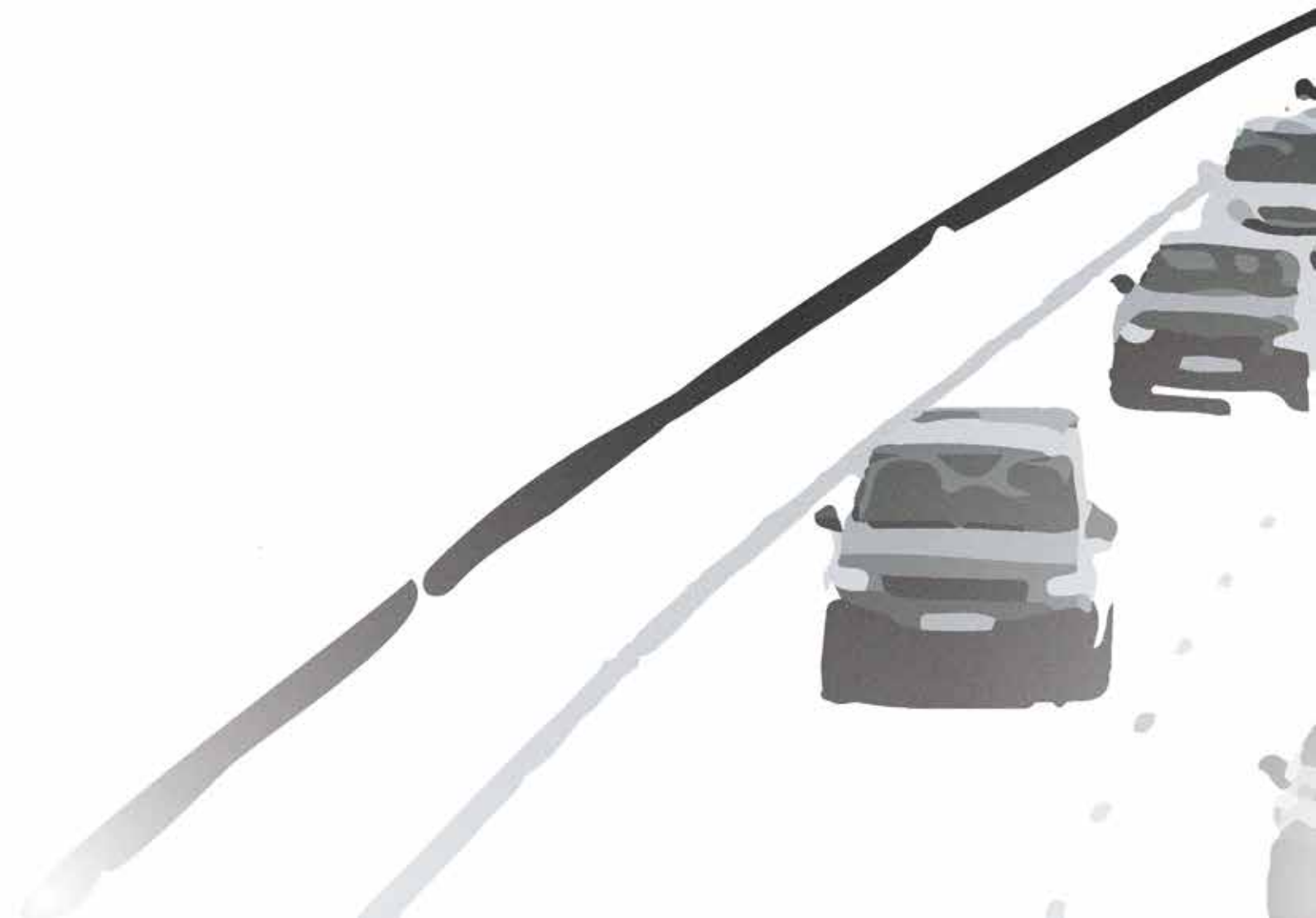
## Table/Form data extraction

Let KOCR handle the task of detecting and decomposing table information from your documents. All you have to do is pass the scanned tables over and KOCR extracts all the information and stacks them into a neat document. This saves ample time and is less error-prone.



# ANPR

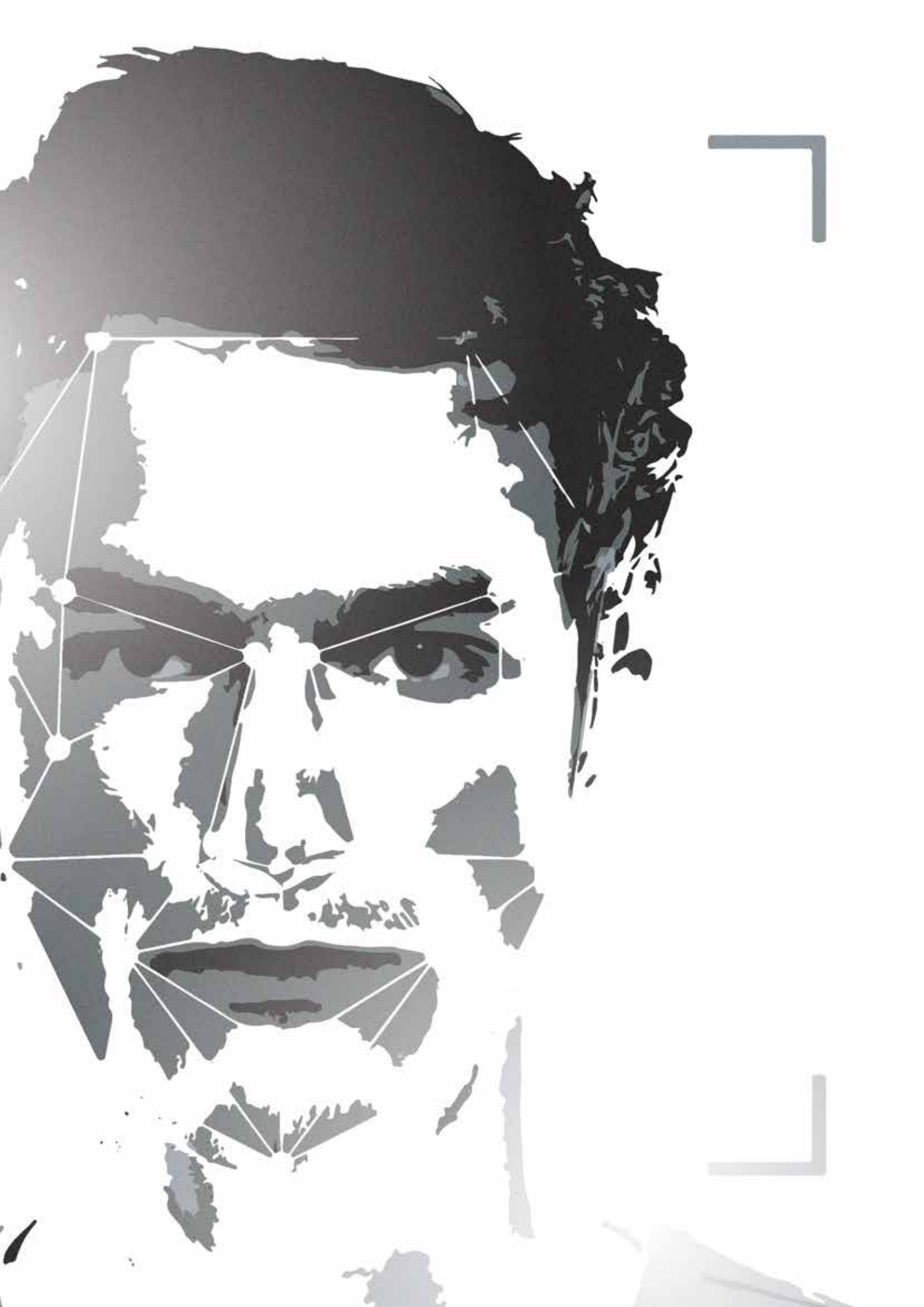
Using Automatic number-plate recognition on images we can read vehicle registration plates to create vehicle location data. Our solutions can use existing closed-circuit television, road-rule enforcement cameras, or cameras specifically designed for the task. ANPR gives you the ability to search for a particular number plate or VIN and find the whereabouts of the number-plate in check along with its movement history. ANPR has many various use cases, among them are law enforcement, traffic management, gated communities' security.





# Face recognition

Face recognition is one of our Computer Vision services that can be quickly and easily integrated into any system to identify people who have been previously tagged in images. Recognize age, gender, and emotions in photos or videos with high accuracy. Our latest face recognition solution is based on cutting edge methods and can be applied to a multitude of business cases like Security, Advertising, Check-ins and VIP Services.



# Spell Checker

With our spell checker solution, you can easily check for grammar, spelling, and punctuation errors in texts and create error-free documents. Spelling checks and grammar utilities are available in Kurdish, English, and Arabic languages. Use our spell checker system for easier and faster writing and reviewing experience.

Besides English and Arabic, our Spell-checker system is specially designed for a morphologically rich language like Kurdish, which can handle all word-forms of Nouns, Verbs, Adjectives and Adverbs. And can detect misused words in the wrong contexts by using advanced language models for Kurdish.





# Sentiment analysis

Sentiment analysis is used to figure out if something is positive, negative, or neutral. It's a combination of natural language processing (NLP) and machine learning. This lets us give weighted sentiment scores to entities, topics, themes, and categories in a sentence or phrase.

Our sentiment analysis solutions support Kurdish, English, and Arabic. This helps you gauge public opinion, do market research, monitor brand and product reputation, and understand customer experiences. You can integrate our sentiment analysis APIs into your own customer experience management, social media monitoring, or workforce analytics platform.

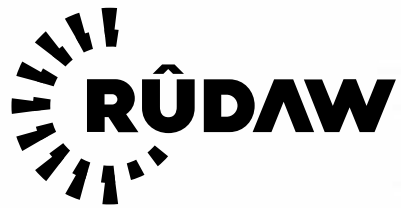
Your organization can use sentiment analysis to understand how customers and employees feel about particular products, subjects, and why they feel that way.



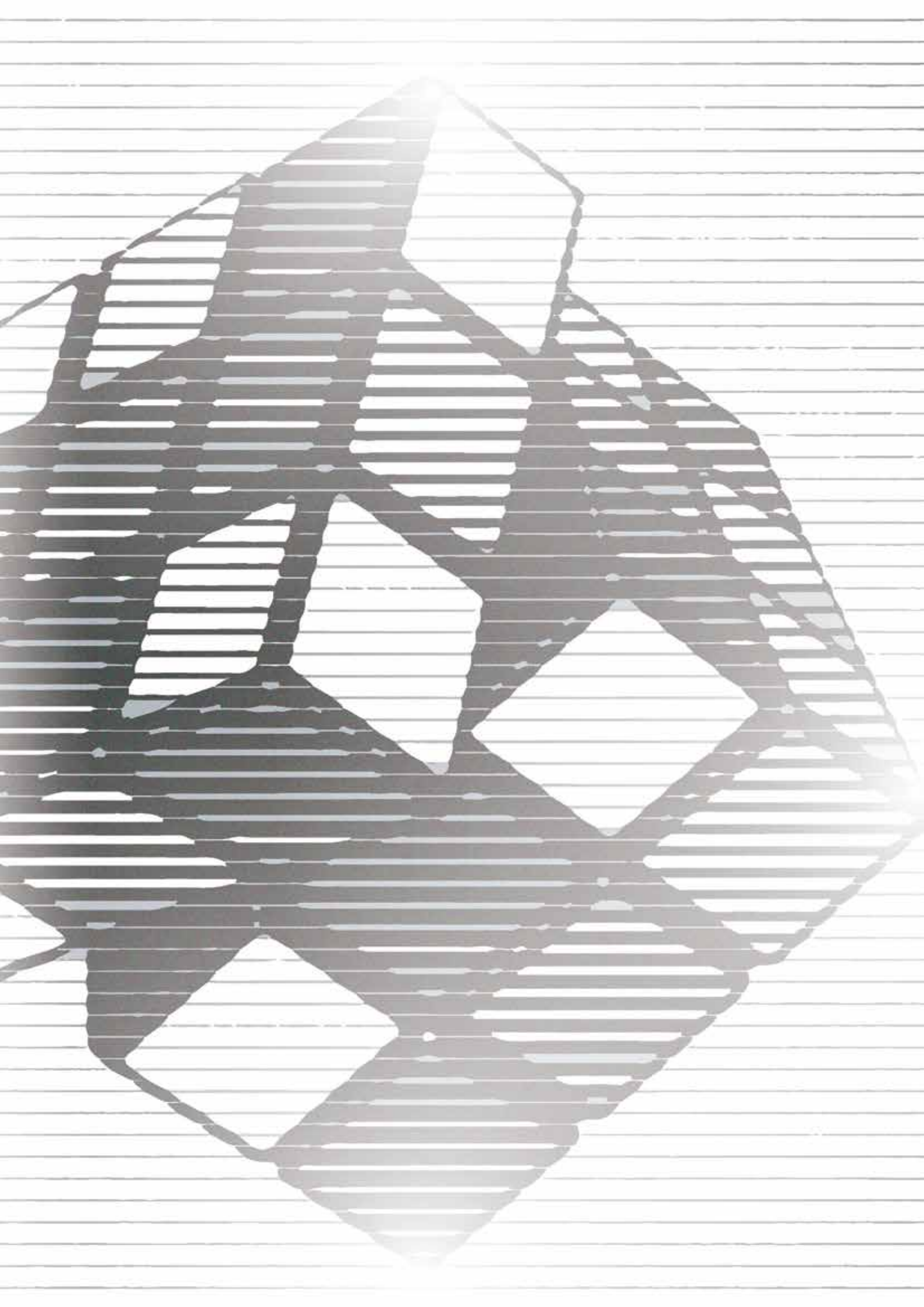


# Clients

Since its founding in 2021, Ovanya has managed to provide the following businesses and entities with AI services in less than a year:



Ministry of Higher Education and Scientific Research



Ovanya empowers businesses with the most valuable technology of the era, by providing Artificial intelligence and Data science services for companies of any size. Coming up with efficient and customizable solutions for your specific use-cases is our main duty.

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