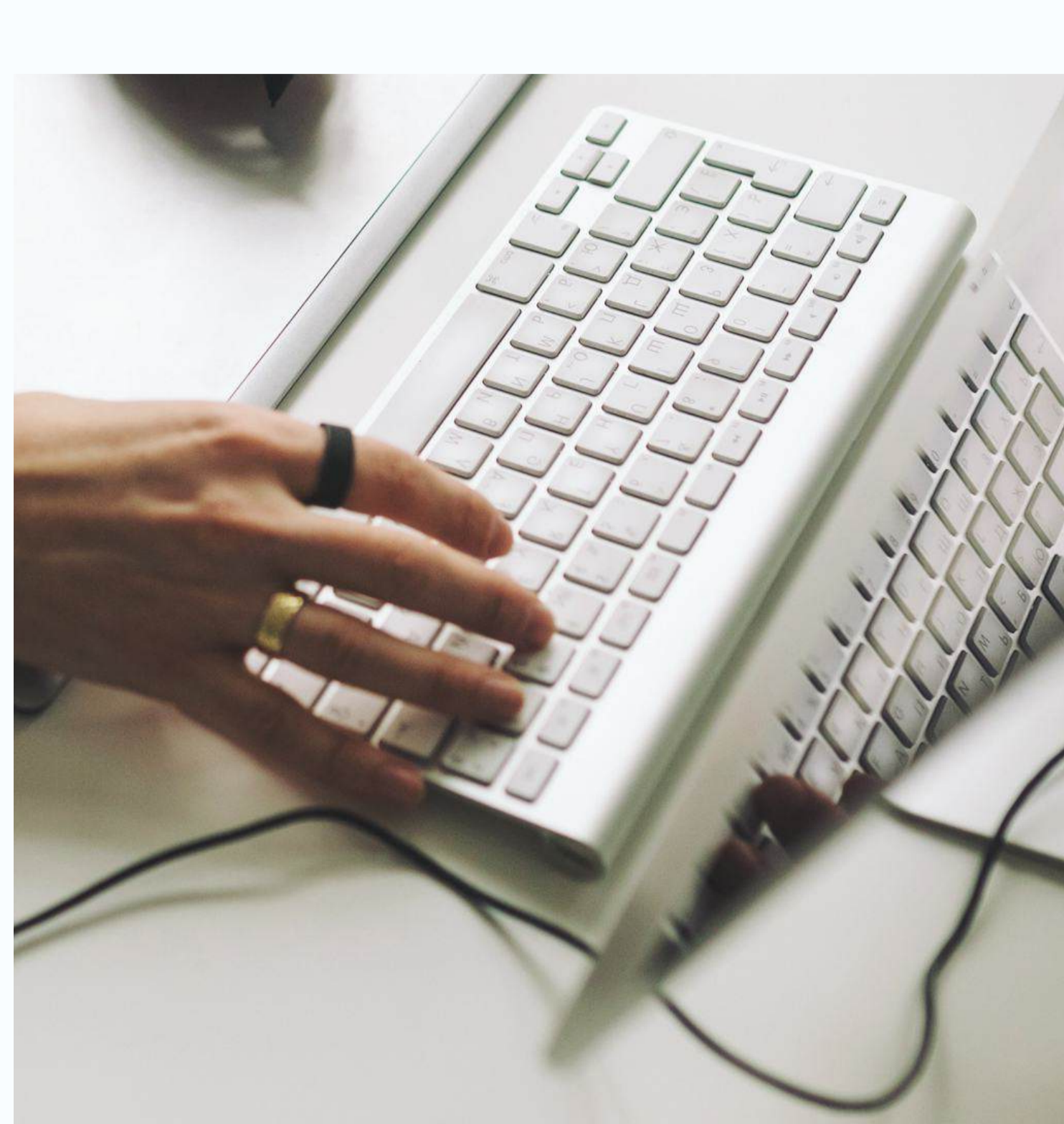
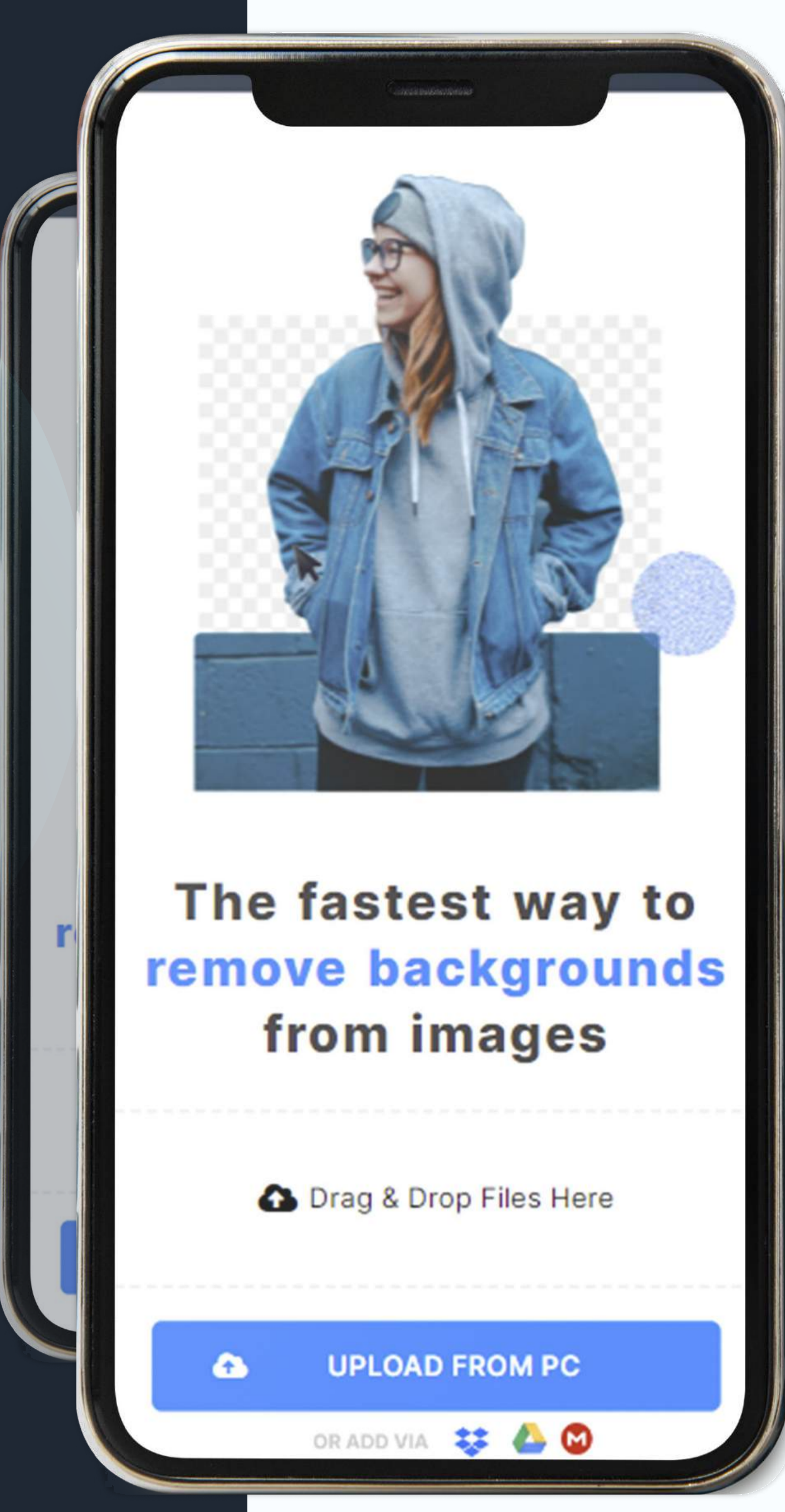


# AI Case Study

## AI Case Study

Recognition of objects in images or How to remove background in 15 seconds?



# Project description

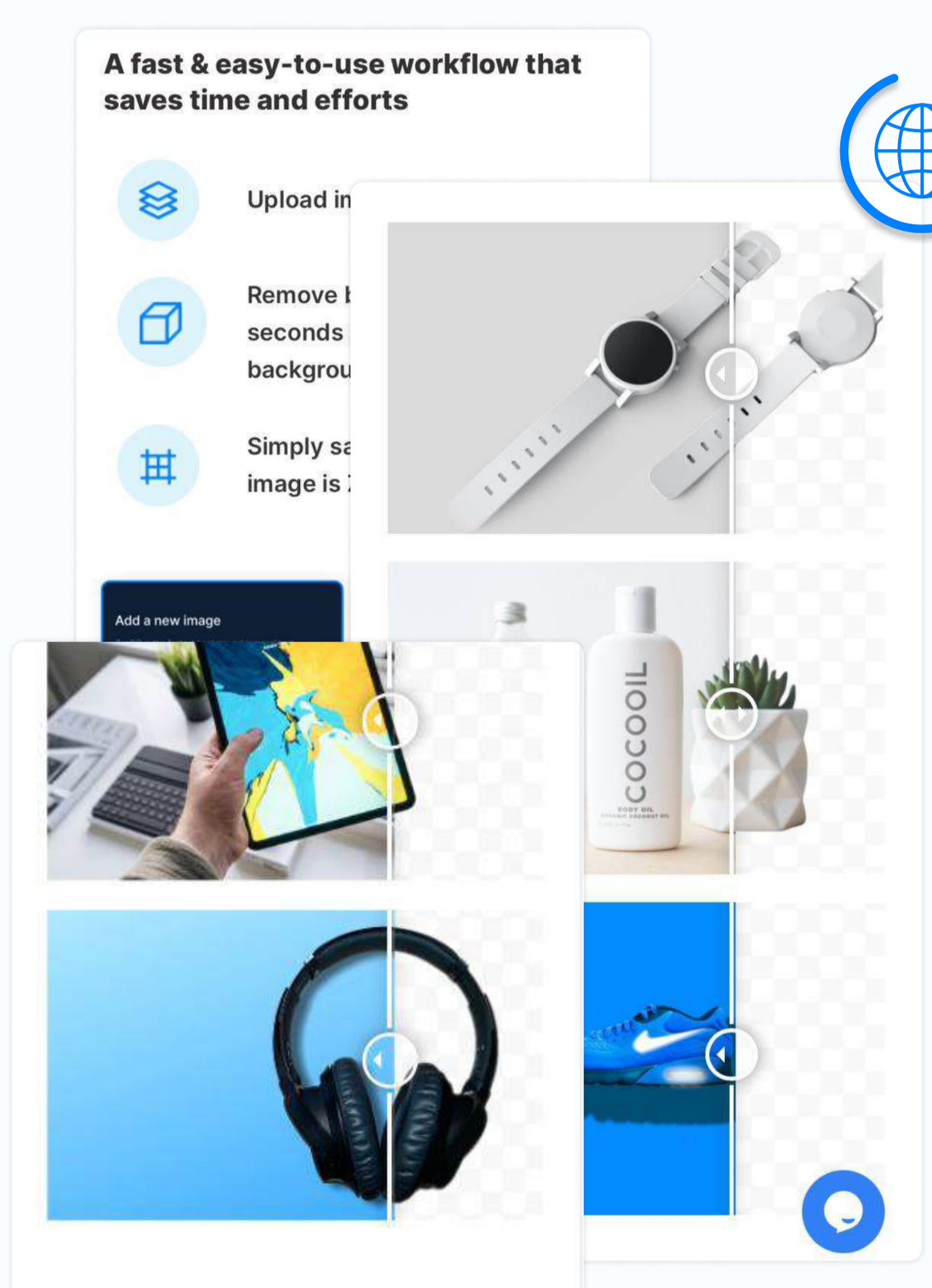
**Project description:** Users can upload their product image and have the background removed in 15 seconds, as opposed to hours of manual work in the past.

**Outcome:** a lot of humans no longer need to do boring, tedious work.

## Client's request

Our client had several businesses in the **retail industry**. Selling products online requires high-quality product images, and producing high-quality images involves a ton of effort.

It was expected that the image **processing time** would be reduced **from 20 minutes** per image to **2 minutes** per image on average, thus allowing sellers to increase their productivity tenfold.



# Approach we used

## Approach we used:

We used **several neural networks** for image detection and border refinement.

In addition to what was available as open source, we also trained **our own models** for some specific classes of images.

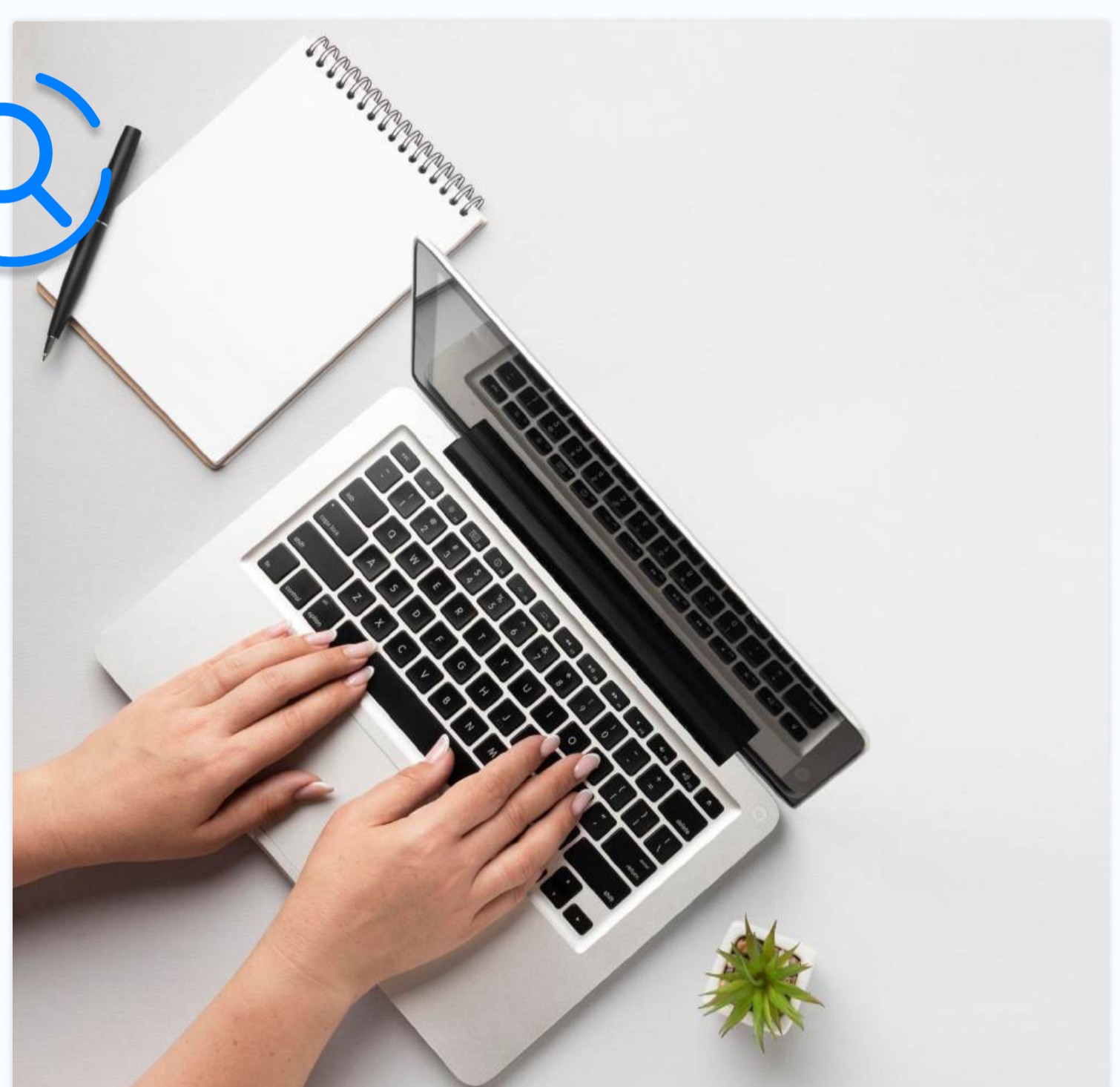
On top of that, we created **simple but powerful** user interface for fine-tuning the results.

# Workflow

## Workflow

We started with **analysis** of what the customers will mostly need and what is easily available on the market as ready-to-use solutions.

Lucky for us, there were good examples out there, a number of models already trained, and we were able to pull together a proof-of-concept quickly.



## Challenges we encountered

**The true challenge** was to support the image classes (object types) that are needed by customers but have yet to be available in the market.

We had to source a lot images from various sources and have the neural networks trained with that data.

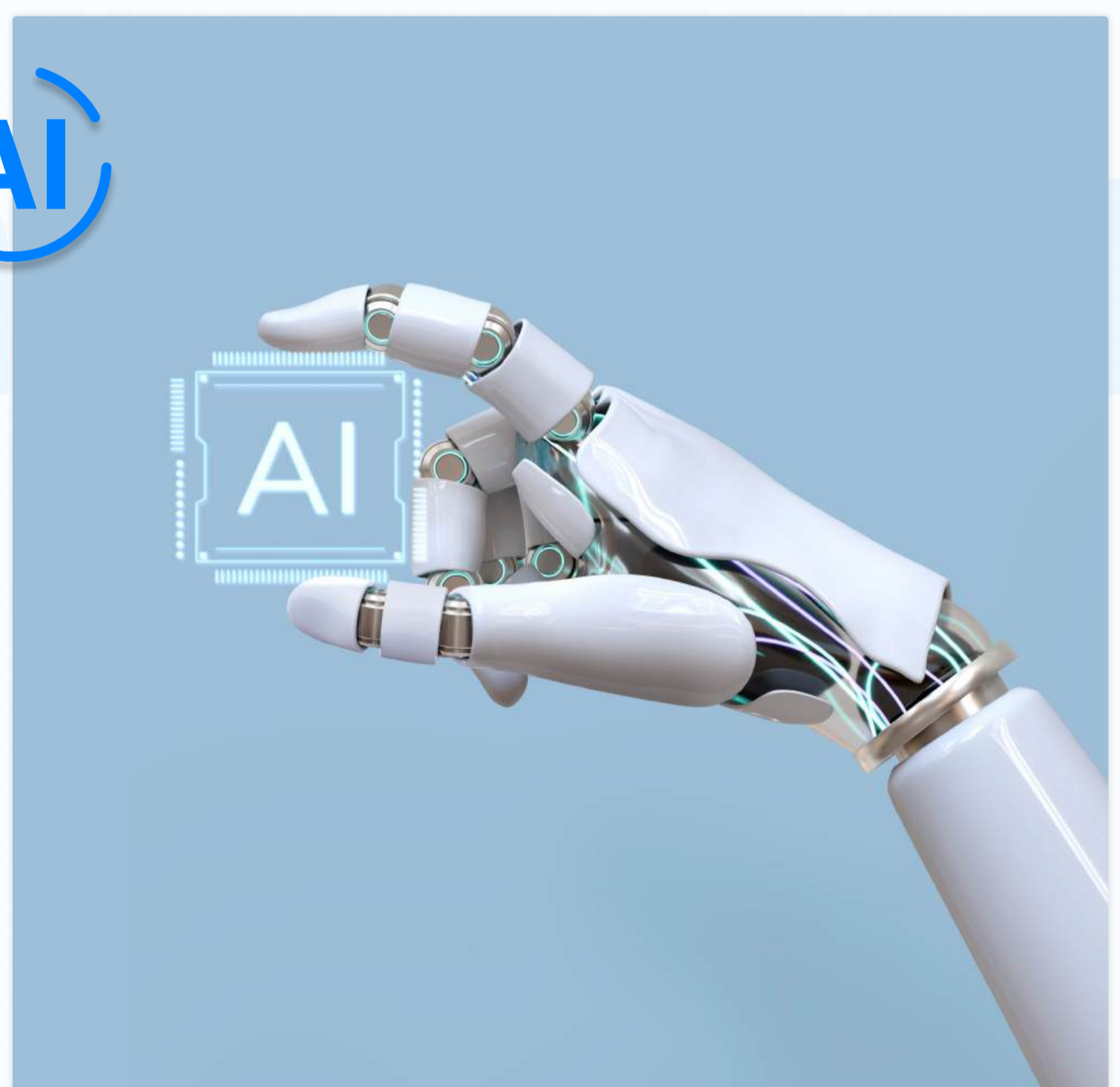
This process is somewhat unpredictable, as you can never be sure about the outcome, and even if the model is trained well, there are always test subjects that fail your tests.

You have to find the balance between efforts put into data sourcing and average quality of the results.

# The lessons learned are:

## The lessons learned are:

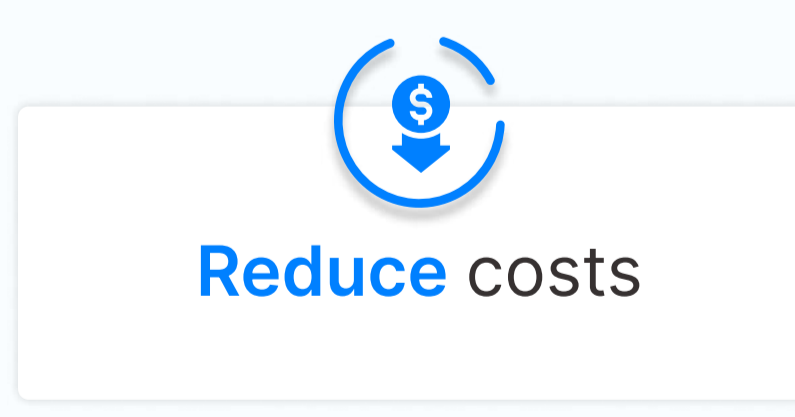
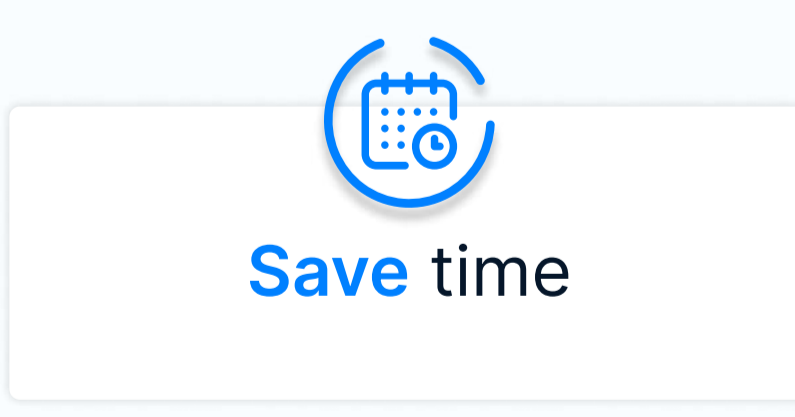
- Always see what's been done already by someone else and reuse their work as much as possible.
- Be ready to work with data a lot. **Data is the king.**
- **There is never a 100% perfection in AI...** but you should get as close to that as possible.



## Wrapping up

### Problems we solved were:

- ✓ The average time spent on product image processing **decreased from 20 minutes to 2 minutes** per image.
- ✓ The employee training time reduced from a couple of days to 30 minutes.

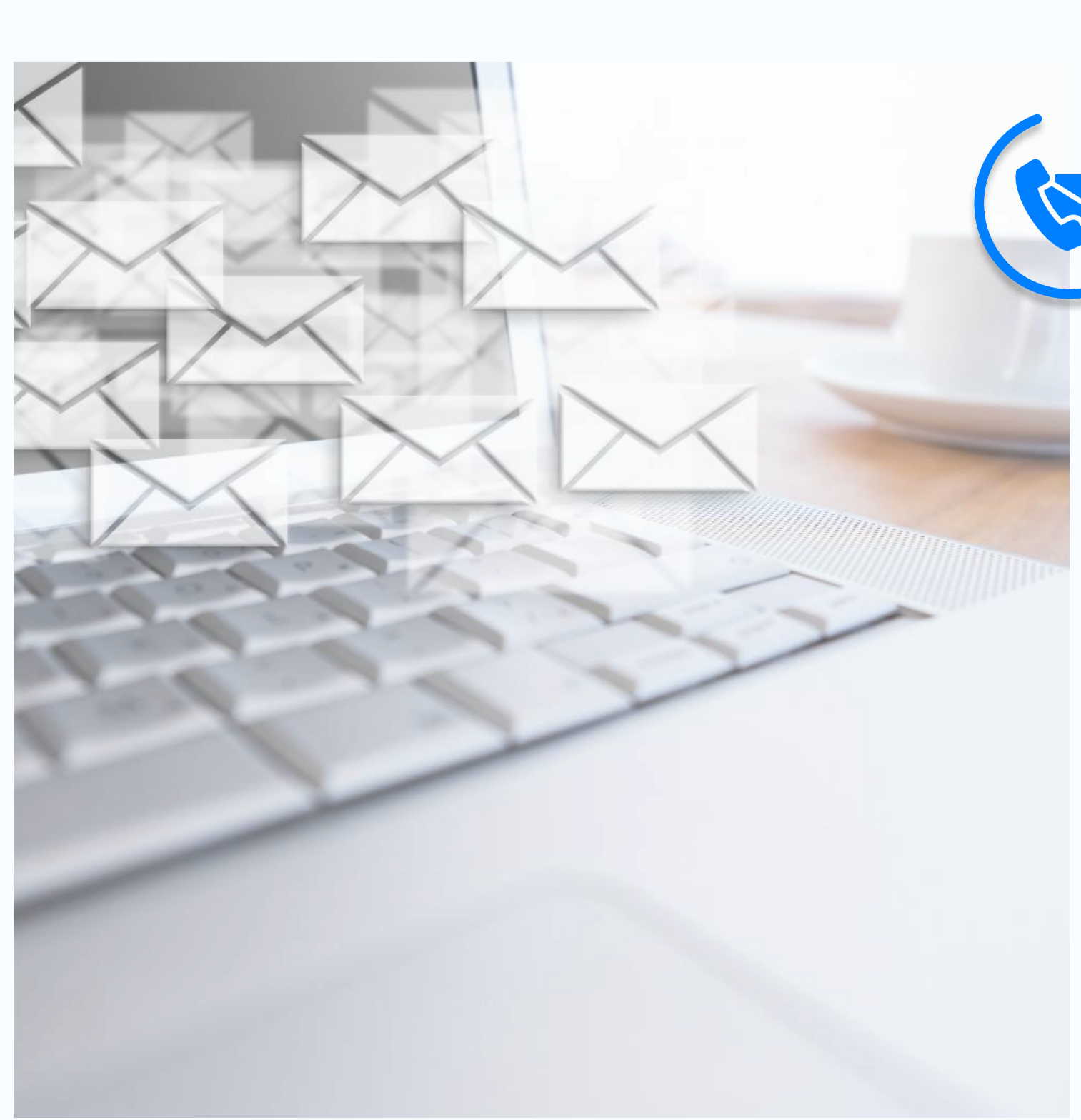


The AI can save humans a lot of time by doing the mundane work instead of them. In our case, the results were even better than we anticipated.

**Say no to the boring work!**

## Our team:

- Project Manager (1)
- AI Specialists (2)
- Front End Developer (1)
- Back End Developer (1)
- Quality Assurance Engineers (2)
- DevOps (1)



# Let's get started

## Let's get started

To coordinate next steps please contact:

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