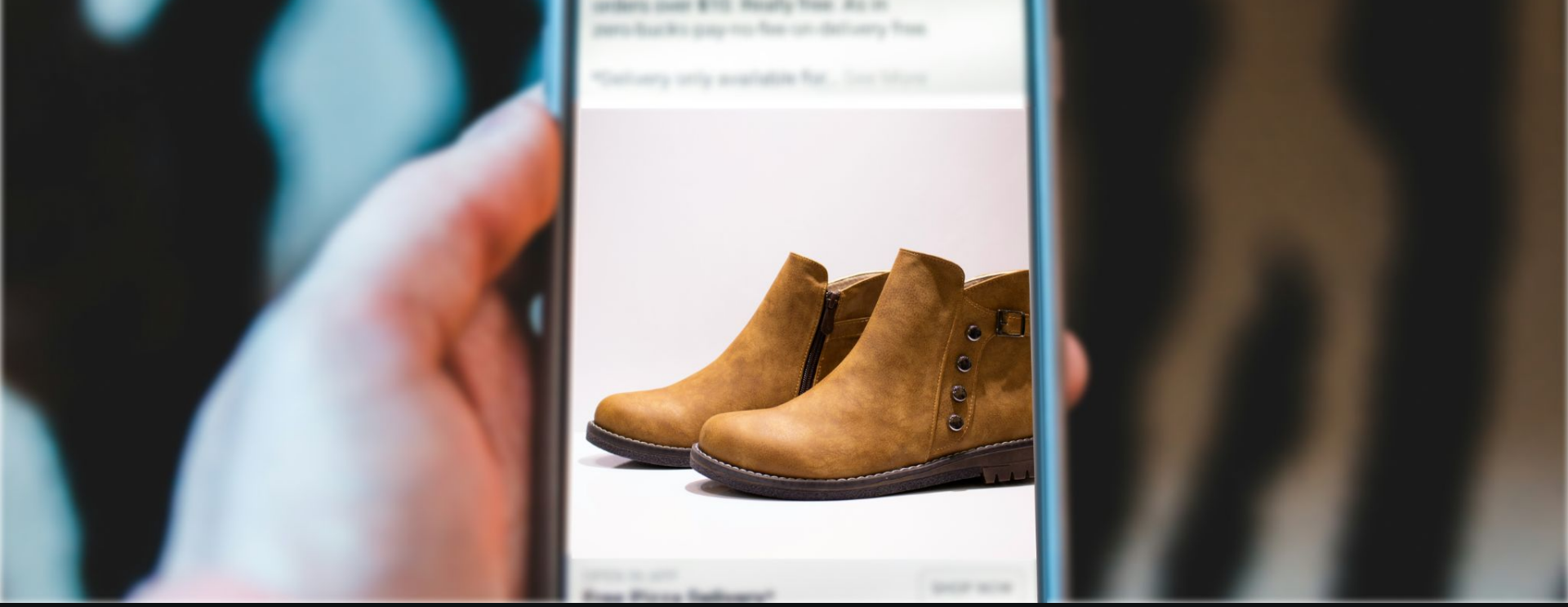

CASE STUDY:

Validating Generative AI Image Masking Model Outputs

How a Fortune 100 company improved its image masking algorithm to develop new, isolated product images.

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The Challenge of Isolating Product Imagery

A Fortune 100 company with a significant presence in the advertising sector was looking to improve its image masking model to generate isolated images of products.

They engaged Sama to evaluate model outputs to **ensure the generative model was properly generating images** that were free from text, logos, or any elements that did not belong to the product itself.

These isolated product images could then be juxtaposed across more neutral backgrounds for advertising purposes.

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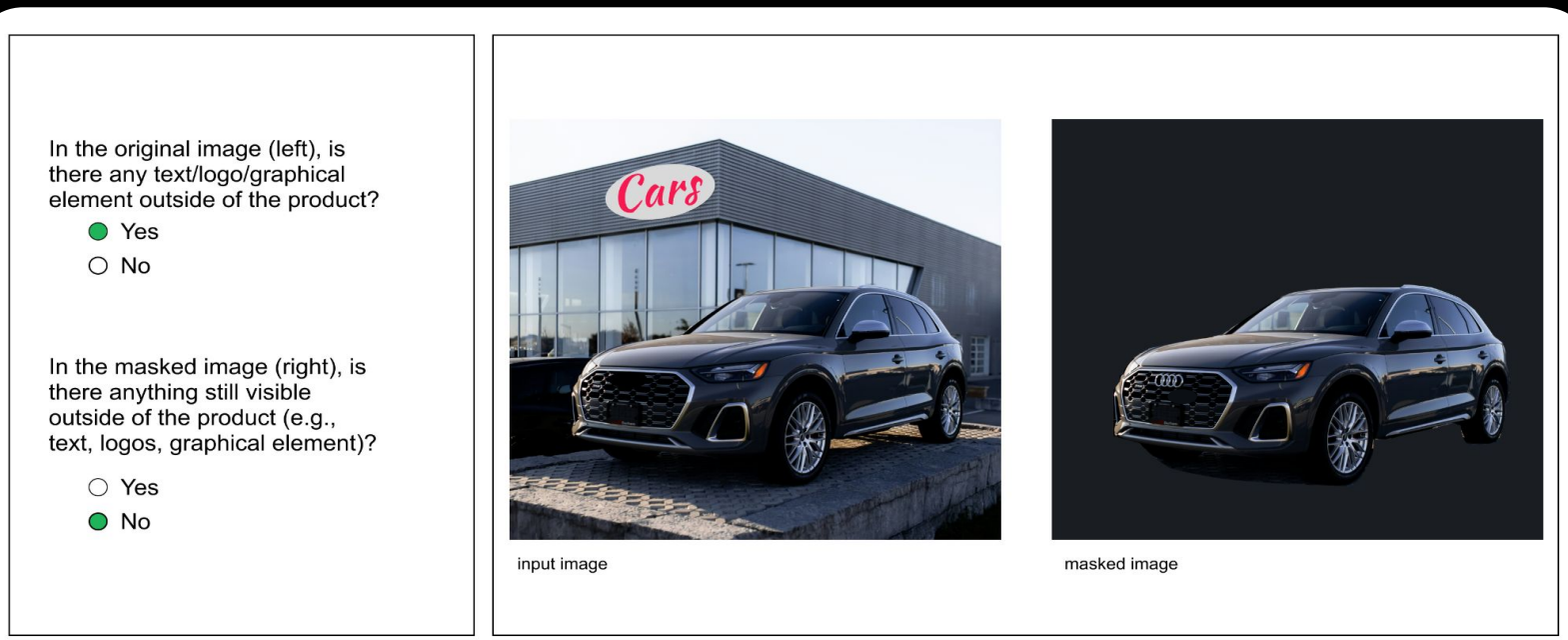

Leveraging Human-in-the-Loop Evaluation

To evaluate the model outputs, our data experts were presented with two images: the original image, and the same image that had been processed by GenAI to mask unwanted elements. They then confirmed whether the image was properly masked or not.

- **Quality**: Is the image clear and not blurry, pixelated or contain a tint from the background?
- **Segmentation:** Are there any flaws in segmentation (i.e. part of the product is cut off)?
- **Comprehensibility**: Can you easily identify the product (i.e. image is not cluttered)?

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Does this meet requirements for...

Quality?

Passed | Failed

Segmentation?

Passed | Failed

Comprehensibility?

Passed | Failed

Accepting or Rejecting Images

A 'correct' output meant model successfully masked all extraneous elements and properly segmented all aspects of the product so that pieces were not cut off or missing. An 'incorrect' output indicated missed elements - such as an unnatural tint to the product that came from the original background.

This process helped identify where the model was struggling to perform—for example, a grey logo on a grey background—**making it easier to fine-tune the model**.

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The Result: A Better Client Experience

Sama's human-in-the-loop approach to model evaluation helped the company improve model accuracy and performance.

Reviewing the masked images for accuracy and flagging errors created additional training data to fine-tune the generative model and ultimately prevent model hallucinations.

By improving the model's performance the company was able to elevate the experience of their advertising product—**making it easier for clients to use, and allowing clients to create higher-performing product ads faster.**

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Unlock the Full Potential of Gen AI Models

Sama is a global leader in **data annotation, supervised fine-tuning, and model evaluation** for computer vision and generative AI applications.

As a **recognized diverse supplier**, our proprietary human-in-the-loop approach, scalable platform and in-house team of over 5,000 data experts drive data-rich model improvements & RAG embedding enhancements that help get AI & ML models into production up to 3x faster.

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