

CASE STUDY:

Gen AI Model Evaluation for Custom Ad Imagery

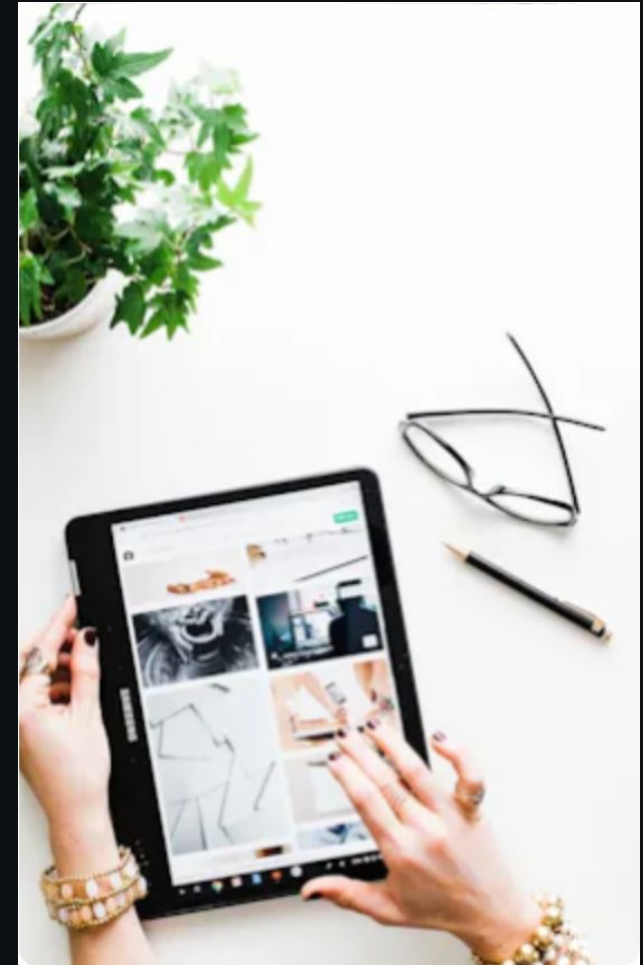
Learn how the advertising division at a Fortune 100 company improved the performance of its custom ad generation model.

Crafting Seamless Realities: The Art of AI-Enhanced Product Ads

A leading Fortune 100 company with an advertising division wanted to scale custom ad imagery by leveraging AI.

Their objective was to **integrate custom-generated, contextual backgrounds into product ads** so that products don't just sit against a backdrop, but belong there. This enhances the viewer's connection to the product and ultimately increases conversion rates.

When using Gen AI images, it is critical to ensure that the foreground seamlessly blends with its new setting for an optimal experience.





Is the image blurry or pixelated?

Passed

Failed

Does the background image suit the product?

Passed

Failed

Are there any unnatural elements in the image?

Passed

Failed

Adding a Human-in-the-Loop Validation Process

The client engaged Sama to evaluate the performance of their Gen AI model. After conducting a collaborative launch session to define requirements, we aligned on how to evaluate and score images.

- **Quality:** is the image clear and not blurry or pixelated?
- **Relevance:** does the background suit the product, allowing the product to flow naturally?
- **Naturalness:** is the product placement natural with no hallucinations (i.e. an extra hand or leg).

Select or Reject: Identifying the Right Context

Our team of data experts reviewed each AI-generated background to ensure it aligned with the ad's context. Images were either accepted or rejected to help create new training data sets to improve model performance.



Examples of **accepted images** include a pair of hiking boots placed near a stream or a child's bike at a park path. These products are displayed in an appropriate context.



Rejected images include misplaced items like a dishwasher in a living room or glasses that appear to be floating above—not resting on—a surface. These are not real-world scenarios.

The Results

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

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

The end result was a better client experience and increased confidence in advertising services.



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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