

CLIENT PROBLEM

A chemical manufacturer aimed to enhance product testing using AI to extract deeper insights from video data. They wanted to understand user sentiment through both non-verbal cues and verbal feedback to cosmetic user tests, uncovering novel findings and identifying anomalies that traditional analysis might miss. Their goal was a more comprehensive understanding of consumer reactions to their products whilst removing the need for a paper questionnaire.

WHAT WE DID

We employed advanced AI reasoning models for sentiment analysis and outlier detection, using an iterative prompt engineering approach to refine the models' outputs. **Our Prompt Engineering expertise enabled us to understand the models' decision-making and adjust prompts to improve accuracy.**



RESULTS + VALUE

The project successfully analyzed sentiment from non-verbal actions across 200+ videos, proving its viability and delivering measurable business impact.

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KEY TECHNIQUES

Iterative Prompt Refinement: Our methodology used continuous evaluation of AI outputs, prompt refinement and versioning to improve result quality. This was essential for extracting deeper insights from reasoning models.

Debugging and Issue Resolution: By analyzing reasoning logs, we pinpointed why models produced certain outputs, directly informing how prompts needed adjustment.

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Preventing Model "Cheating": We engineered prompts to prevent the model from relying on unintended cues like lip reading, ensuring focus on intended data sources and reasoning processes.

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