PRD

Product Name: AdVisor

Objective: AdVisor empowers marketers to understand and improve their ad creatives by combining multimodal feature extraction with generative agent simulations. Users upload an ad (image/video) and basic company info; AdVisor analyzes it, simulates audience communities, and delivers actionable creative feedback and improved ad variants.

Core Idea: Transform raw ad creatives into structured intelligence → feed into generative agent "communities" → produce targeted insights, audience simulations, and data-driven creative iterations.

Objectives:

Goal	Description	Metric
Feature Extraction Insight	Extract semantically rich, non-redundant signals (visual tone, text CTA, pacing, sentiment, logo density, etc.)	≥10 distinct, decorrelated features per ad
Performance	Maintain total processing <5 min for dataset; parallelizable and batchable	<5 min per 50 ads on single GPU
Robustness	Handle diverse industries, formats, resolutions	100 % of .png / .mp4 ads successfully processed
Creativity	Demonstrate unique, interpretable signals and agent-based interpretation	≥3 novel "outside-the-box" signal types

System Architecture:

1. Ad Upload

2. Feature Extraction Engine

3. Feature Store (structured embeddings, signals)

4. Community Recommender

5. Agent Simulation Layer (runs community-based analyses)

6️⃣ Creative Feedback & Variant Generator

7️⃣ Insights Dashboard (aggregates everything)

How each step feeds to the next

Stage	Input	Output / Role
1. Ad Upload	User uploads ad + company info	Raw file + metadata
2. Feature Extraction Engine	Ad creative (image/video/audio)	Multimodal features (visual, text, audio, sentiment, etc.)
3. Feature Store	Features from extractor	Central structured dataset + embeddings
4. Community Recommender	Ad embeddings + brand metadata	Suggests best-fit or custom audience communities to simulate
5. Agent Simulation Layer	Selected communities + features	Runs feedback simulations (Performance Analyst, Creative Director, etc.) tailored to each audience
6. Creative Feedback & Variant Generator	Agent outputs	Produces improved ad variants or creative recommendations

7. Insights Dashboard	Aggregated feedback, variants, metrics	Visualization + download/export UI for marketers

Why This Matters

- The Community Recommender acts as a router, it defines which audience lenses the agents should think through.
- The Agent Simulation Layer then instantiates agents for each selected community (e.g., "Gen Z minimalists," "Busy professionals") to provide targeted creative critique and reactions.
- Without that handoff, agents wouldn't know which audience persona they're simulating, it's the key connection between data-driven analysis and human-like interpretation.