

# Pencil

## Case study on how KeyValue helped build Pencil

Pencil

New project

Pencil Develop... >

AI magic tools

Projects

Creatives

Results

Insights

Benchmarks

Brand library

Asset library

Template library

Settings

Get help

What's new

Let's make some ads

Tell us what kind of ad you want to make! EN ▶

Instagram video showcasing a new language learning app with immersive techniques.

TikTok ad highlighting the benefits of a subscription-based book club service.

TikTok ad featuring a creative way to use an online design tool for personal projects.

Get started with AI

Generate text, images, videos, creatives and more

View all tools >

Make me an ad for a cosmetic brand

Generate creatives

Chat with Pencil to go from insight to storyboard to assets to finished creatives ready for any channel.

Get started

Perfume bottle on a rock surrounded by trees

Generate images

Shoot product or lifestyle images instantly using text prompts, sketches and style references.

Get started

Generating text ideas for you

Write me 5 smart social media captions

Generate text

Chat with Pencil to discover insights, brainstorm ideas and write copy - from headlines to entire blog posts.

Get started

Start with a template

Generate ads using channel-specific templates

All templates ▾ Filter

Facebook ads

Instagram ads

Instagram reels

Google Display

Google PMax

YouTube ads

YouTube Shorts

TikTok ads

LinkedIn ads

Amazon supplementary

Amazon A Plus

Amazon ads

# Pencil

World's **#1 Gen AI marketing platform** for asset creation and performance.  
Selected as the most innovative Company in Advertising and Marketing Vertical.

Domain:  
AdTech

Headquarters:  
 UK

Region:  
Global SaaS

URL:  
[trypencil.com](https://trypencil.com)

“ KeyValue with their exceptional **talent**, an **ownership mindset**, and a **product culture** innovates together with us in to create the best product. ”

- Sumukh Avadhani CTO and Co-founder, Pencil



# Partnership

We engaged with Pencil immediately after their seed round with three engineers, which has now grown to a 50+ member team

AI/ML

FrontEnd

BackEnd

Data

UI/UX Strategist

DevOps

QA



## Time to market

Streamlined & AI-first development ensuring rapid delivery, keeping Pencil ahead of the competition at the same time keeping the product cost under control.



## Scalability

Our flexible and scalable team enabled the rapid, high-quality development of Pencil, ensuring smooth operation at every stage.



## Ownership

An ownership mentality to drive the mission forward with dedicated, proactive development and support.



## AI/ML Skills

Our unparalleled AI/ML skills favored Pencil in transforming challenges into opportunities and delivering innovative solutions



# Business Impact

79%

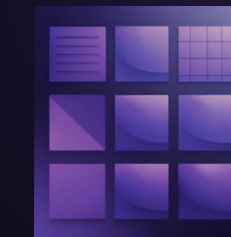
better ROAS



\$40M

ARR

Guaranteed  
100% safe Ads



1.5M+

Ad creatives generated

2X

effective ads

\$1.5B

in Ad spend used to  
train predictions

48% CPA



# Empowered Brands

Trusted by **5,000+ brands** and agencies including many **Fortune 100 Companies**



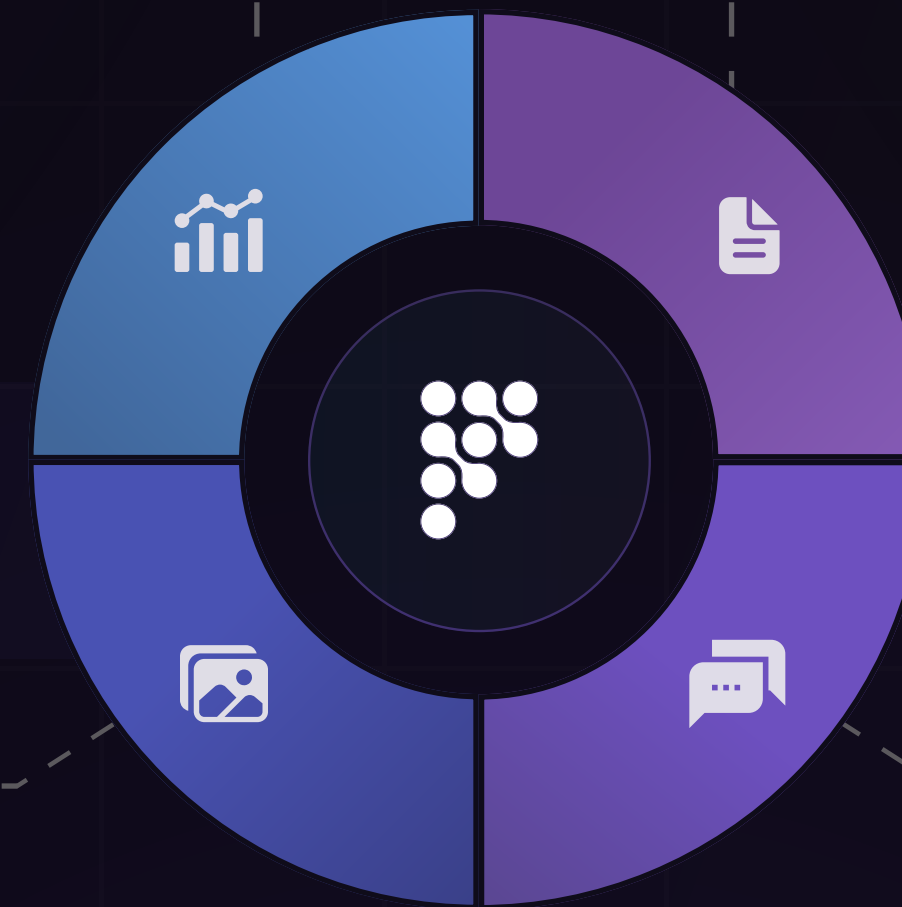
# Features

## Prediction System

A system streamlining data processing and monitoring real-time ad performance. It delivers actionable insights for faster decision-making, enhanced ad effectiveness, and improved ROI.

## Image Generation

Simplifies product positioning and boosts visual appeal. Automating image creation and ensuring brand consistency, saves time and increases engagement.



## Text generation

Creates customized ad copy by pulling in relevant information and aligning it with market trends, with flexible design templates to maximize engagement.

## Chat-to-Ad Creation

Accelerates ad development and aligns content with marketing goals. Using conversational inputs and context-based descriptions enhances targeting and improves conversion rates.



# Tech Highlights

- Flexible & pluggable **multi-agent platform** for Ad generation that can fully add or swap any new LLMs to quickly adapt to any innovation in the generative or predictive space.
- A smart and intelligent **predictive multi-model platform** that can predict the effectiveness of the ad generated with very high accuracy.
- Data Platform for retraining the predictive model for new domains and regions.

 **Winner** 76% confidence

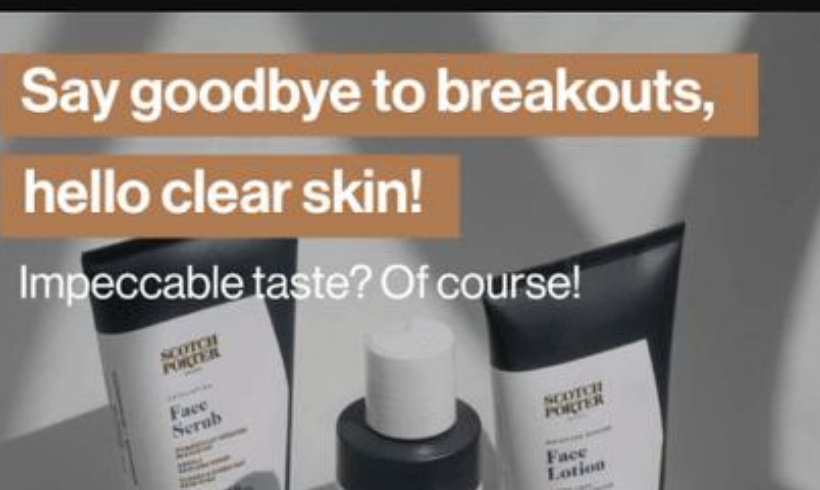


**SCOTCH PORTER**  
Time to elevate your beard game  
Self-care starts with Scotch Porter Beard Collection  
[ADD TO CART](#)

☐ Beard game • 6s • 

Idea 1 

 **Loser** 76% confidence



**SCOTCH PORTER**  
Say goodbye to breakouts,  
hello clear skin!  
Impeccable taste? Of course!  
[ADD TO CART](#)

☐ Breakouts • Static

Idea 2 

 **Winner** 76% confidence



**SCOTCH PORTER**  
Nurture your hair with  
Scotch Porter Face Lotion  
[ADD TO CART](#)

☐ Hair • Static

Idea 3 



# Technology Stack

## Infrastructure



ArgoCD



Kubernetes



RabbitMQ



MLFlow



Google Cloud



Cloudflare

## Frontend



React



Jotai



Recoil



Context

## Application Layer



NodeJS



React



Python



FastAPI

## Artificial Intelligence



Google Vertex AI



OpenAI



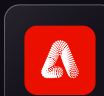
Gemini



Stable Diffusion



Imagen



Adobe FireFly

## Databases



MySQL



Qdrant

