

MarketingAI Platform

Feature Document

Version 1.0 | December 2025

1. Platform Overview

MarketingAI is a comprehensive AI-powered marketing platform that enables small businesses and individuals to create, manage, and optimize professional marketing campaigns across all major social media platforms. This document provides a detailed specification of all platform features and capabilities.

Platform URL

Production: <https://marketingai-1075463475276.us-central1.run.app>

Technology Stack: Python Flask, Google Cloud Run, BigQuery, Vertex AI

2. Authentication & User Management



Authentication System

✓ User Registration

Self-service registration with company name, email verification, and secure password creation

✓ JWT Token Authentication

Secure token-based authentication with 24-hour expiration and automatic refresh

✓ Role-Based Access Control

Admin, User, and Viewer roles with granular permission management

✓ Session Management

Persistent sessions with 2-hour inactivity timeout and secure logout

API Endpoints

POST /api/auth/register

Register new user

POST /api/auth/login

User login

GET /api/auth/me

Get current user info

POST /api/auth/logout

End session

3. Brand Management



Brand Profiles

Create and manage multiple brand identities with comprehensive customization options.

✓ Multi-Brand Support

Manage up to 5 brands per user account
(unlimited for admin)

✓ Brand Voice Settings

Choose from Casual, Professional, Friendly, or Authoritative tones

✓ Visual Identity

Custom color schemes with primary, secondary, and accent colors

✓ Brand Themes

Modern, Professional, Playful, Minimal, or Bold design themes

Brand Configuration Options

Setting	Description	Options
Brand Name	Primary brand identifier	Text (2-100 chars)

Industry	Business category	Technology, Retail, Healthcare, Finance, etc.
Target Audience	Audience description	Free text description
Brand Voice	Communication tone	Casual, Professional, Friendly, Authoritative
Keywords	SEO and content keywords	Comma-separated list
Logo URL	Brand logo image	URL to image file
Social Media Handles	Connected accounts	JSON object with platform handles

4. AI-Powered Content Creation



AI Content Generation

AI POWERED

Supported Content Types

Social Media Posts

Platform-optimized posts with hashtags, emojis, and CTAs for all major networks

Blog Articles

Long-form SEO-optimized content with structured headings and meta descriptions

Email Campaigns

Newsletter, promotional, and announcement emails with personalization

Ad Copy

Platform-specific advertising copy with character limit compliance

AI Models Integrated

Model	Provider	Use Case
Gemini 2.0 Pro	Google Vertex AI	Text generation, content creation, analysis
Imagen 3	Google Vertex AI	AI image generation (1080x1080 to 1920x1080)
Veo 2	Google Vertex AI	AI video generation (6-60 seconds, 1080p)
Natural Language API	Google Cloud	Sentiment analysis, entity extraction

Generation Parameters

- **Temperature:** 0.6-0.9 (adjustable per content type)
- **Max Tokens:** Up to 2048 for text content
- **Variations:** 3 content variations per generation
- **Tone Matching:** Automatically matches brand voice settings



Image Generation

AI POWERED

Image Specifications

Aspect Ratio	Dimensions	Best For
Square (1:1)	1080 × 1080	Instagram, Facebook feed
Landscape (16:9)	1920 × 1080	YouTube, Twitter, LinkedIn
Portrait (9:16)	1080 × 1920	Instagram Stories, TikTok

Image Styles

- Photorealistic
- Artistic/Illustration
- Cartoon/Animated

- Minimalist/Clean
- Bold/Vibrant



Video Generation

AI POWERED

NEW

Video Specifications

- **Duration:** 6-60 seconds
- **Resolution:** 1080p (1920×1080)
- **Frame Rate:** 30 FPS
- **Format:** MP4
- **Processing Time:** 2-5 minutes

5. Supported Platforms



Social Media Platforms

Instagram

Facebook

YouTube

TikTok

Twitter/X

LinkedIn

Platform-Specific Features

Platform	Content Types	Character Limits
Instagram	Posts, Reels, Stories, Carousels	2,200 chars
Facebook	Posts, Videos, Stories	63,206 chars

YouTube	Videos, Shorts, Community Posts	5,000 chars (description)
TikTok	Videos, Live streams	2,200 chars
Twitter/X	Tweets, Threads	280 chars (4,000 premium)
LinkedIn	Posts, Articles, Videos	3,000 chars

6. Content Calendar & Scheduling



Content Calendar

✓ Multi-View Calendar

Monthly, weekly, and list views with drag-and-drop scheduling

✓ Timezone Support

Schedule posts in any timezone with automatic conversion

✓ Bulk Scheduling

Schedule multiple posts at once with bulk actions

✓ Content Ideas

AI-suggested content ideas by category and trending topics

Content Status Workflow

1

Draft - Content saved but not scheduled

2

Scheduled - Queued for automatic publishing

3

Published - Successfully posted to platform

4

Failed - Error occurred, requires attention

Optimal Posting Times (Built-in)

Platform	Best Times	Recommended Frequency
Facebook	9 AM, 1 PM, 3 PM	1-2 posts/day
Instagram	11 AM, 2 PM, 7 PM	1-3 posts/day
Twitter	8 AM, 12 PM, 5 PM	3-5 posts/day
LinkedIn	8 AM, 12 PM, 5 PM	1 post/day (weekdays)

7. Campaign Management

Campaign Features

Campaign Types

Awareness

Brand visibility campaigns focused on reach and impressions

Lead Generation

Capture leads with forms, gated content, and signup offers

Sales

Drive purchases with product promotions and offers

Engagement

Build community through interactive content and discussions

Campaign Configuration

- Campaign name and goal setting

- Multi-platform targeting
- Start and end date scheduling
- Budget allocation and tracking
- Target audience definition
- Content theme planning
- A/B testing capabilities

Campaign Metrics Tracked

- Total impressions and reach
- Engagement rate
- Click-through rate (CTR)
- Conversions and conversion rate
- Return on Ad Spend (ROAS)
- Budget spend tracking

8. Analytics & Reporting

Analytics Dashboard

✓ Performance Overview

Total impressions, reach, engagement across all platforms

✓ Content Analysis

Top and worst performing posts with insights

✓ Audience Insights

Demographics, active hours, device usage

✓ AI Recommendations AI

Predictive analytics and optimization suggestions

Report Types

Report	Frequency	Contents
Weekly Performance	Every Monday	Previous week metrics, comparison
Monthly Campaign	Monthly	Campaign summaries, ROI analysis
Quarterly Review	Quarterly	Trends, strategic recommendations
Custom Report	On-demand	User-defined metrics and date range

Export Formats

- CSV (spreadsheet analysis)
- PDF (presentation-ready)
- Excel (detailed analysis)

9. Templates Library

Pre-Built Templates

Template Categories

Educational Carousels

Step-by-step guides, tutorials, how-to content

Quote & Inspiration

Motivational quotes, thought leadership posts

Tips & Lists

Numbered tips, checklists, top-10 lists

Product Showcases

Product launches, features, promotions

10. Admin Features



Administration

ADMIN ONLY

✓ User Management

Add, modify, deactivate users with role assignment

✓ Platform Statistics

System-wide usage metrics and health monitoring

✓ Database Access

BigQuery direct access for custom queries

✓ API Management

API key generation and rate limit configuration

Admin API Endpoints

GET /api/admin/users

Get all users

GET /api/admin/stats

Get platform statistics

11. Technical Specifications



Platform Limits

Item	User Limit	Admin Limit
Brands per account	5	Unlimited
Scheduled posts	100	Unlimited

Image file size	10 MB
Video file size	100 MB
Campaign duration	365 days max
API rate limit	100 requests/minute
AI generation limit	10 requests/minute

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AIAlgoTradeHits.com | December 2025

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