

GENERATIVE AI IN VISUAL CONTENT CREATION

A comprehensive guide to AI image generators

Generative AI can create stunning visuals, an essential component in today's digital landscape.

Learn how to navigate the intricacies of visual Gen AI — from the tech behind it to choosing the right model and dealing with legal aspects of data and ownership.

HOW DOES GEN AI IMAGE CREATION WORK?

The crux of AI image generation lies in its algorithms.

Gen AI uses algorithms and machine learning to:



ANALYZE THOUSANDS OF IMAGES



IDENTIFY AND MIMIC PATTERNS IN VISUAL DATA



CAPTURE INTRICATE DETAILS TO CREATE UNIQUE VISUALS



Generative Adversarial Networks (GANs)

A class of machine learning systems consisting of generators and discriminators that work together to create high-quality images.



Convolutional Neural Networks (CNNs)

A specialized type of deep learning algorithm primarily designed for tasks that require object recognition, including image classification, detection, and segmentation.



TWO MAIN TYPES OF AI IMAGE GENERATION:



Image-to-image generators take an existing image and modify it for tasks such as photo editing or transforming sketches into digital art.



Text-to-image generators create visuals from textual descriptions, bringing your ideas to life.

USE CASES

It's not just about ease and reduced operational costs — it's about creating compelling visuals that resonate with your audience, improving engagement and conversion rates.



Here's how businesses are capitalizing on Gen AI for image creation:



Realistic visualizations for architectural designs, interior layouts, or urban planning projects.



Virtual prototypes for physical products to evaluate design feasibility and functionality.



Enhancement or restoration of old or low-quality images.



Image quality improvement by eliminating noise, artifacts, or imperfections.



Image variations for A/B testing in marketing campaigns.

HOW DO I CHOOSE THE RIGHT AI IMAGE GENERATOR?

Choosing the ideal Gen AI image generator is critical for generating compelling content.

Your choice should be driven by:



Quality



Speed



Customization



Cost

Benefits of Gen AI Image generation services:



Immediate access



Cost-effective



Easy to use

AI IMAGE GENERATION SERVICES INCLUDE:



MIDJOURNEY:

Pros:

- Extremely easy to use with simple text prompts
- Generates highly accurate and high-quality images
- Provides detailed fine-tuning features for artistic control

Cons:

- Requires third-party application integration
- Difficult to use for beginners



STABLE DIFFUSION:

Pros:

- Improves stability and quality of image results over traditional techniques
- Generates high-quality images from low-quality sources
- Enhances specific features like colors and textures
- Versatile for both static and dynamic images

Cons:

- Can be computationally intensive and time-consuming
- Quality may vary based on input data and network parameters



DALL-E:

Pros:

- Easy to use
- Generates images from detailed textual descriptions
- Ideal for digital artwork and image editing

Cons:

- Limited resolution
- Low accuracy from prompts



BRIA AI:

Pros:

- Commercially safe to use
- Exclusive licensing
- Flexibility and customization
- High image quality and resolution

Cons:

- Difficulty when elements contact or interact
- Doesn't accept complex queries



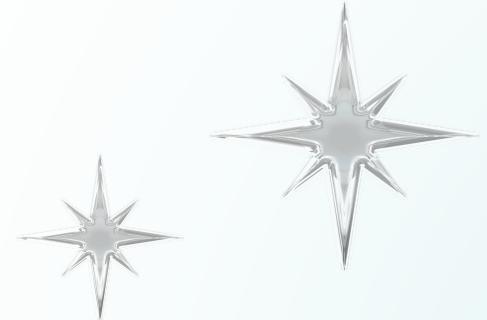
ADOBE FIREFLY:

Pros:

- Great user interface
- Friendly for beginners
- Licensed, commercially safe datasets from Adobe Stock
- Integrated with Adobe Suite apps like Photoshop and Illustrator

Cons:

- Cost
- Not available as an API
- Doesn't accept complex queries



Benefits of open-source or self-hosting solutions:



Flexibility



Data security



Customization and Personalization

Other options for businesses that choose not to use commercial AI image services include:



Open-source image generators offer a collaborative community of developers contributing to software advancement.



Self-hosted solutions provide full control over the system and streamline deployment by integrating with existing infrastructure.



APIs and software for AI image generation provide automation, scalability, and customization and enable access to complex, state-of-the-art machine learning models.

WHAT ARE THE LEGAL CONCERNS OVER AI-CREATED IMAGES?

Key issues: The rise of AI in creating images has led to an increase in discussions regarding copyright and ownership issues. It is crucial to understand the implications of using AI-generated images, especially as the technology becomes more prevalent.

HOW CAN A PARTNER HELP ACCELERATE MY VISUAL GEN AI IMPLEMENTATION?

SoftServe understands the intricate legalities of model ownership, providing an easy and straightforward roadmap for Gen AI deployment — from discovery and launch to production. **We provide:**

- **Accelerated Gen AI time-to-market:**
Fast and reliable solutions to keep you ahead in the competitive market.
- **Expertise in Gen AI:**
Implementation aimed at maximizing efficiency, innovation, and growth.
- **Comprehensive support:**
Guidance through every phase — discovery, launch, and production.
- **Exceptional partnerships:**
Ties with top-tier technology providers to deliver robust and efficient solutions tailored to your needs.
- **Customization:**
Fine-tuning models according to customer data and adjusting functionality based on needs.
- **Integration:**
Incorporate solutions into existing business workflow.
- **Security:**
Ensure that data remains private.

SOFTSERVE MARKETING CONTENT CREATION IP

Based on boilerplate and S.Way UI, SoftServe's Marketing Content Creation IP:



Specializes in generating tailored marketing content that's customizable for individual brands and products.



Facilitates the creation of personalized content aimed at specific audience segments.



Drastically cuts down design time by producing marketing banners in adherence to brand guidelines.



Accelerates content adaptability across a range of different channels.

Our innovative technology effortlessly aligns with your brand, product offerings, and audience segments, integrating text, images, and videos for a comprehensive marketing approach.

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