

INTELLI-GEN

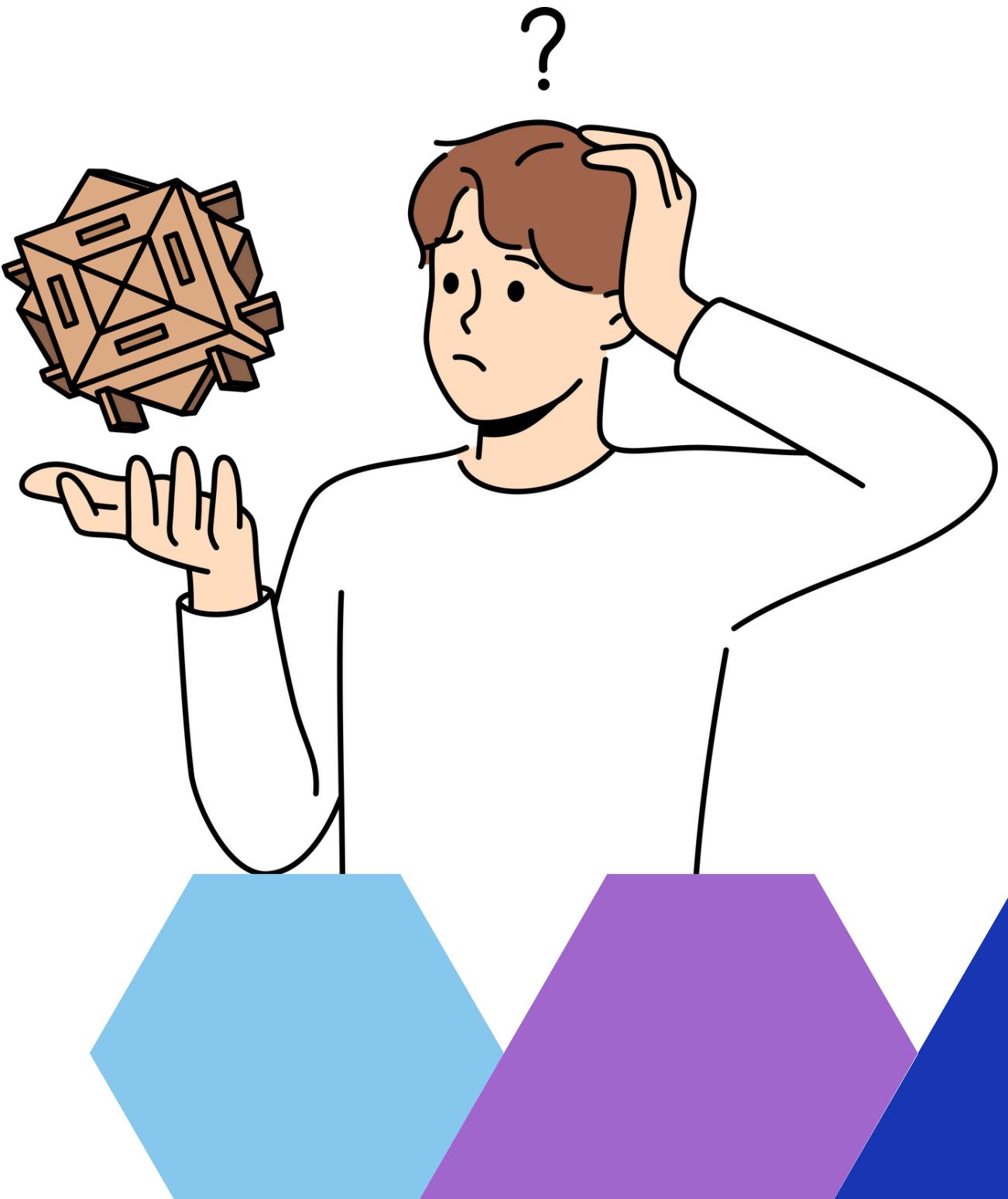
TRANSFORMING IMAGES INTO INFINITE POSSIBILITIES



Problem and Need

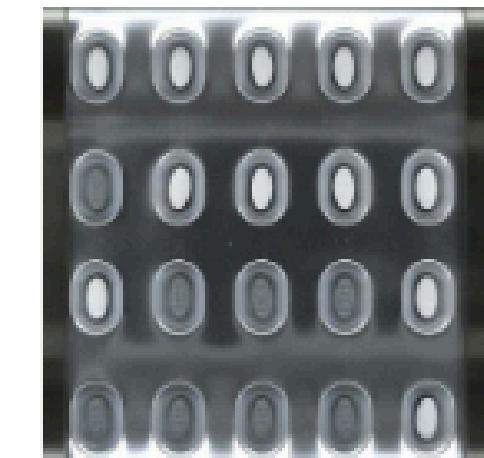
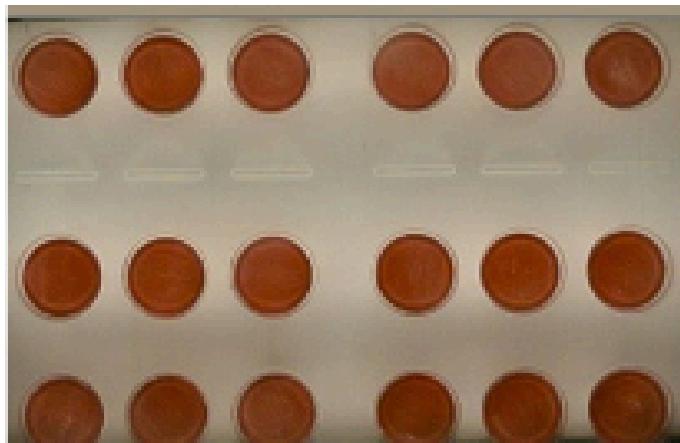
Why is there a need of this project in the field of Machine Vision?

- Data scarcity is a major barrier in AI, causing 70% of AI projects to fail due to lack of quality data.
- High-quality dataset acquisition is time-consuming and costly, with image datasets costing up to \$50,000.
- Our platform generates diverse datasets from 5-15 images, reducing time and cost.
- It improves model accuracy and training efficiency while addressing data scarcity.



Lake Of DataSet - Google lens

Original Images



Google Lens Results

Google

Add to your search

All Products Visual matches About this image

Valentino Plastic package with drug tabs, Capsule blister...

eBay Clear Plastic Vials Individ...

MeinRezeptar Tagesausflug nach Obergries und Umgel...

Apollo Pharmacy Regulär & PZN anrechen...

Are these results useful? Yes No X

This screenshot shows the Google Lens interface on a mobile device. It displays search results for a "Plastic package with drug tabs, Capsule blister...". The results include links to eBay, MeinRezeptar, and Apollo Pharmacy, along with a "Visual matches" section showing similar items.

Google

Add to your search

All Products Visual matches About this image

DONAMHA PERDENDO A NOÇÃO

TikTok Absurdo Official TikTok Music | album by...

Springer Pregabalin | SpringerLink

Are these results useful? Yes No X

This screenshot shows the Google Lens interface on a mobile device. It displays search results for a "black capsule". The results include links to TikTok and Springer, along with a "Visual matches" section showing similar items.

Google

Add to your search

All Products Visual matches About this image

Amazon.in Olly Mel 500mg - Strip of 15 Tablets : Amazon...

Amazon.in Telmarch 60 - Strip of 15 Tablets : Amazon...

Amazon.in Securise 100 - Strip of 14 Tablets : Amazon...

Amazon.in Rosycap-CV 20 mg -Strip of 16 Capsules ...

Are these results useful? Yes No X

This screenshot shows the Google Lens interface on a mobile device. It displays search results for a "dark blister pack". The results include links to Amazon.in, along with a "Visual matches" section showing similar items.

Lack of Dataset - Kaggle

Kaggle Dataset

The image shows a comparison of two Kaggle datasets:

- Pharmaceutical Drug Recognition**: This dataset contains 10 images with a total size of 210 MB. The images show various pharmaceutical drugs and vitamins.
- Pharmaceutical Drugs and Vitamins Synthetic Images**: This dataset contains 141 images with a total size of 249 MB. The images show various pharmaceutical drugs and vitamins.

Both datasets are displayed in a grid format, with each image showing a different pharmaceutical product against a different background or surface. The right dataset appears to have more images and a larger total size than the left one.

Lake Of DataSet - US Government

US Government Dataset



The screenshot shows a dataset page from the U.S. Department of Health & Human Services. The main title is "Computational Photography Project for Pill Identification (C3PI)". A photograph of two white capsules with green markings "GG 575" is displayed next to a ruler scale. The page includes sections for "Access & Use Information" and "Downloads & Resources".

Computational Photography Project for Pill Identification (C3PI)

Material Updated: June 27, 2024

The Computational Photography Project for Pill identification (C3PI) was discontinued in 2010. No new images will be added to the collection. Identifiers for pills will not be updated.

The Computational Photography Project for Pill identification (C3PI) created the Rx20kV6 database of freely available high-quality digital images of prescription pills and associated data for use in conducting computer vision research in text- and image-based search and retrieval. Photographs of pills for the Rx20kV6 database were taken under laboratory lighting conditions, from a camera directly above the front and the back faces of the pill, at high resolution, and using specialized digital macro-photography techniques. Image segmentation algorithms were then applied to create the JPEG images in the database.

Historical information about the project is available in the NLM archive at <https://wayback.archive.org/7503/20190423162037/https://nlmc.nlm.nih.gov/project/c3pi/computational-photography-project-pill-identification>.

Access & Use Information

Public: This dataset is intended for public access and use.
License: See this page for license information.

Downloads & Resources

Share on Social Sites
Twitter

Lack of Dataset - MVtech



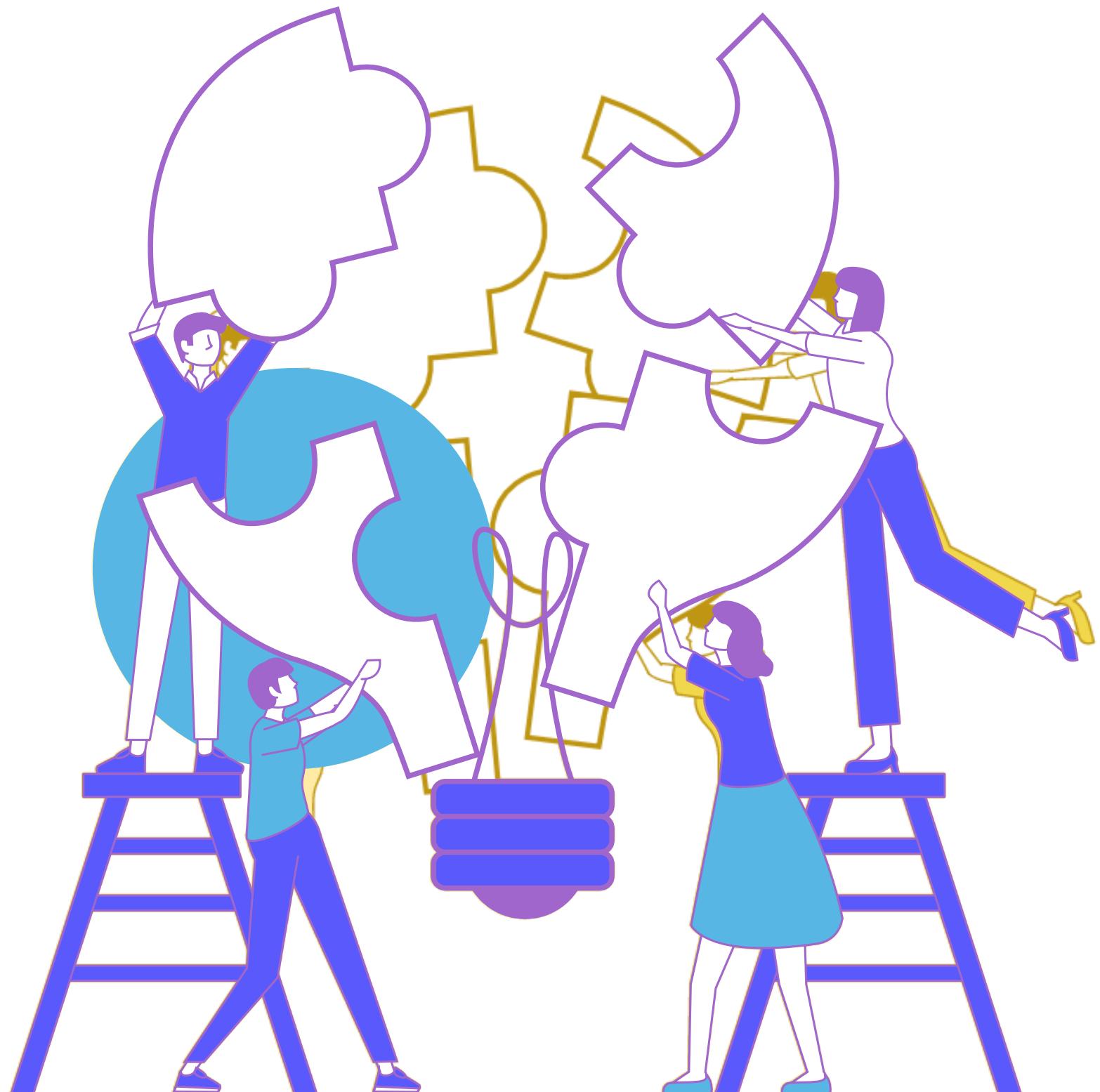
Project Objective

- **Project Goal:** Develop a platform using generative AI to create comprehensive datasets from some user-provided images.
- **Time and Cost Efficiency:** Significantly reduces the time and cost of data collection for training machine vision or machine learning models.
- **Key Sectors:** Benefits sectors like healthcare, retail, and manufacturing.
- **Model Accuracy:** Improves model accuracy by providing high-quality datasets.
- **Time Reduction:** Reduces data collection time by up to 70%.
- **Impact:** Accelerates AI application development.



Approach

- **Platform Capabilities:** Utilizes advanced generative AI to create diverse datasets.
- **Input Requirement:** Requires only 5-15 user images to generate datasets.
- **Technologies Used:** Employs models like Stable Diffusion and LoRA for fine-tuning.
- **Data Quality:** Enhances data quality and relevance through fine-tuning.
- **Time Efficiency:** Reduces dataset creation time by up to 80%.
- **Cost Reduction:** Cuts costs by 50%.
- **Scalability:** Ensures efficient and scalable AI model training.

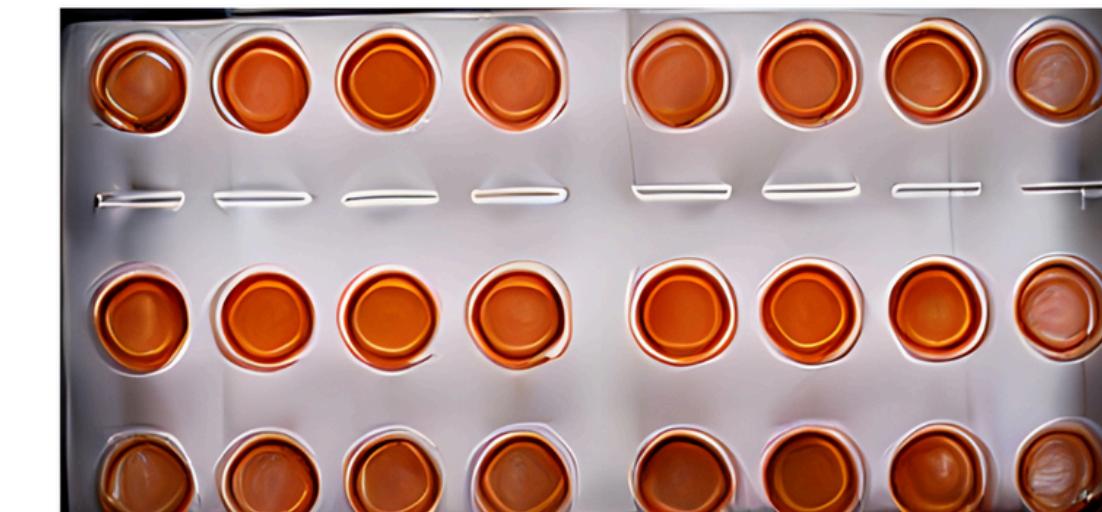
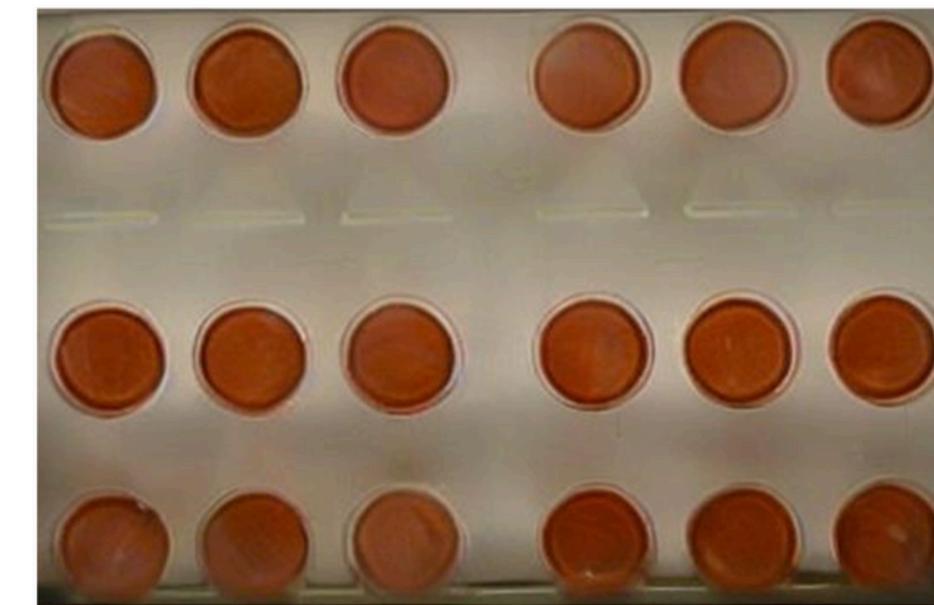


Model Results

Original Image



Generated Image

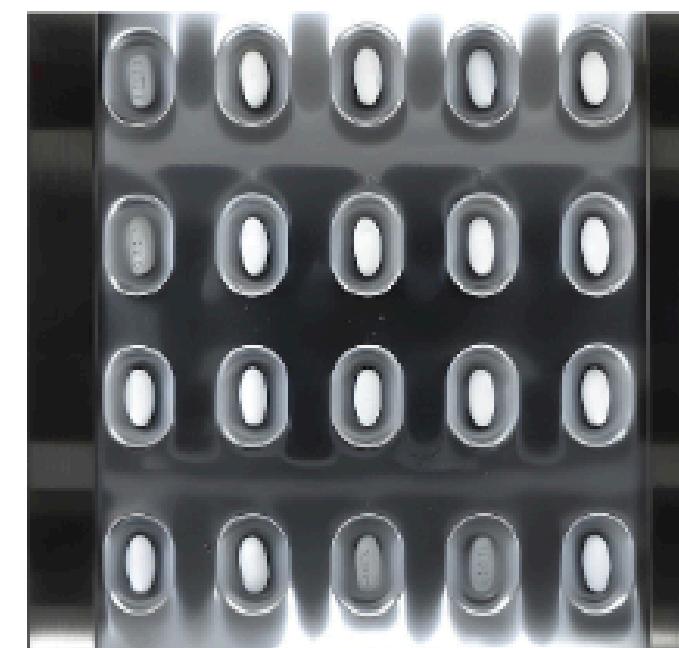
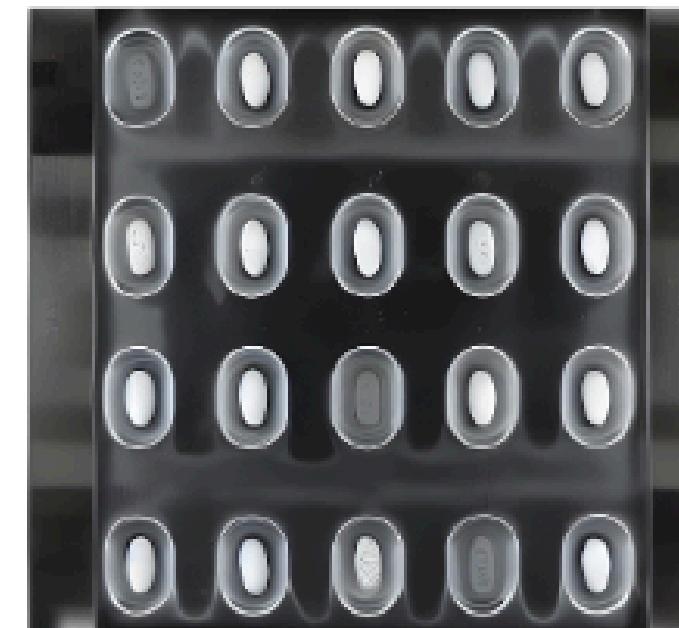


Model Results

Original Image

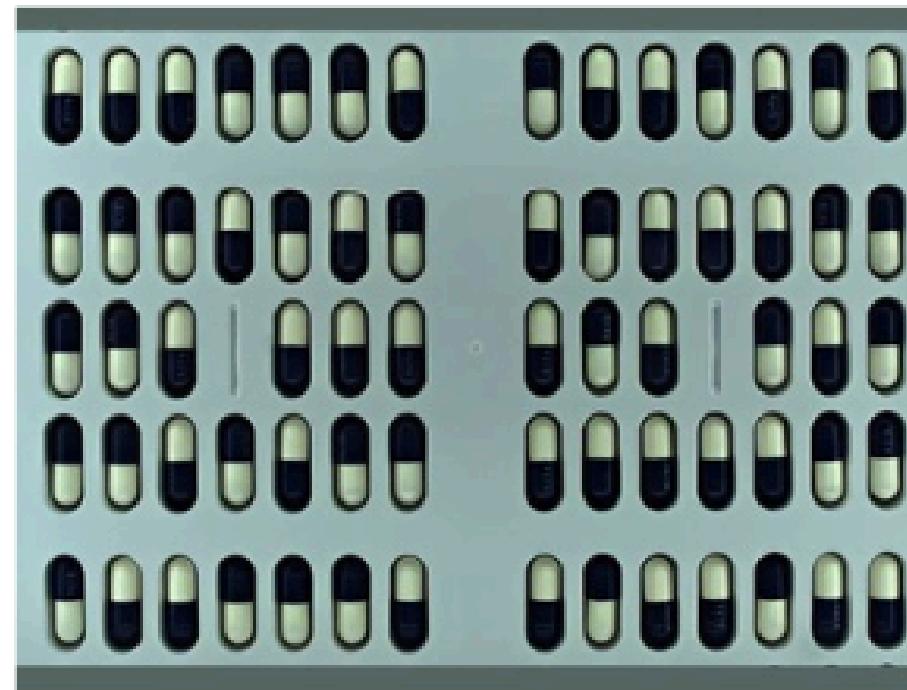


Generated Image

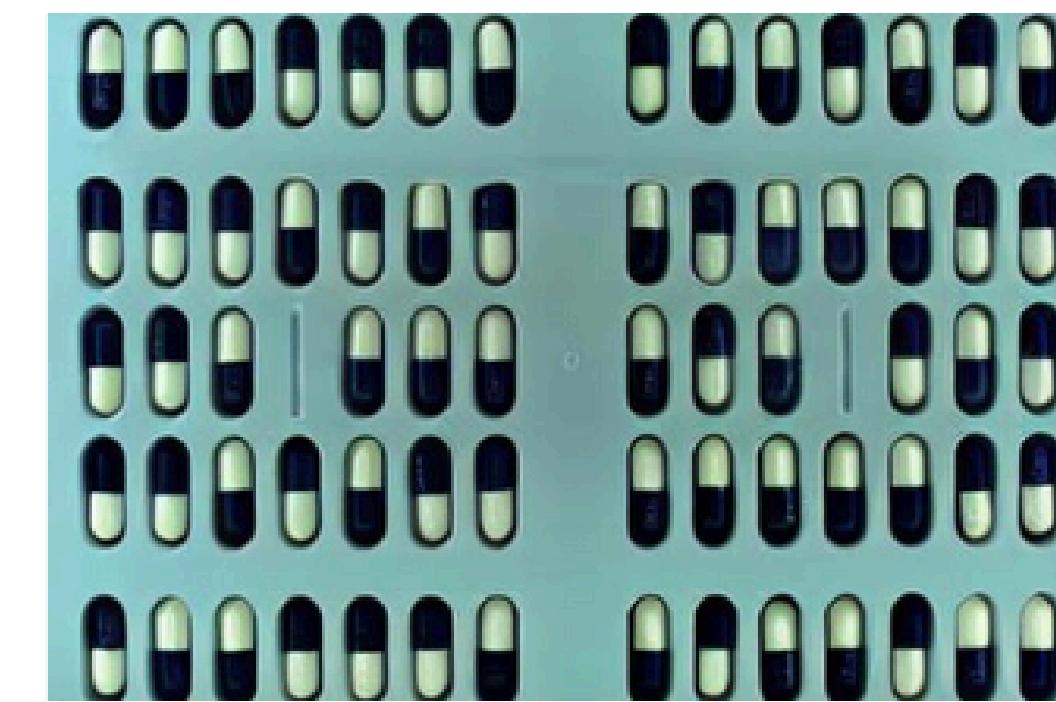


Model Results

Original Image



Generated Image

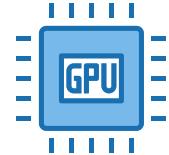


Resources Needed



Cloud Infrastructure

AWS (Amazon Web Services) or Google Cloud Platform (GCP) for hosting and scaling the platform.



GPU Instances

NVIDIA A100 or V100 instances for model fine-tuning and dataset generation.



Object Storage

Amazon S3 or Google Cloud Storage for storing image datasets and generated files.

Business Model

Subscription Plans

Monthly or annual subscriptions based on dataset generation limits. Audience with a memorable Canva Presentation.

Basic Plan:

Limited dataset generation per month.

Pro Plan:

Increased generation capacity with advanced features.

Enterprise Plan:

Custom solutions with dedicated support and higher limits.

Pay-Per-Use

Charges based on the number of datasets or images generated.

API Access

Provide API access to companies looking to integrate dataset generation into their own platforms.



Key Goals

Accuracy of Generated Datasets

Success will be evaluated based on the accuracy of generated images, with a target of 80% similarity to user-provided inputs.

Scalability

Evaluated by the platform's ability to handle 100 concurrent users without performance issues.



User Satisfaction

Measured through surveys and feedback, with a goal of achieving over 90% user satisfaction regarding usability and effectiveness.

Cost Savings

The project will be considered successful if it demonstrates a 30% reduction in dataset creation costs compared to traditional methods.

Thank you!

Feel free to approach us if you have any questions.