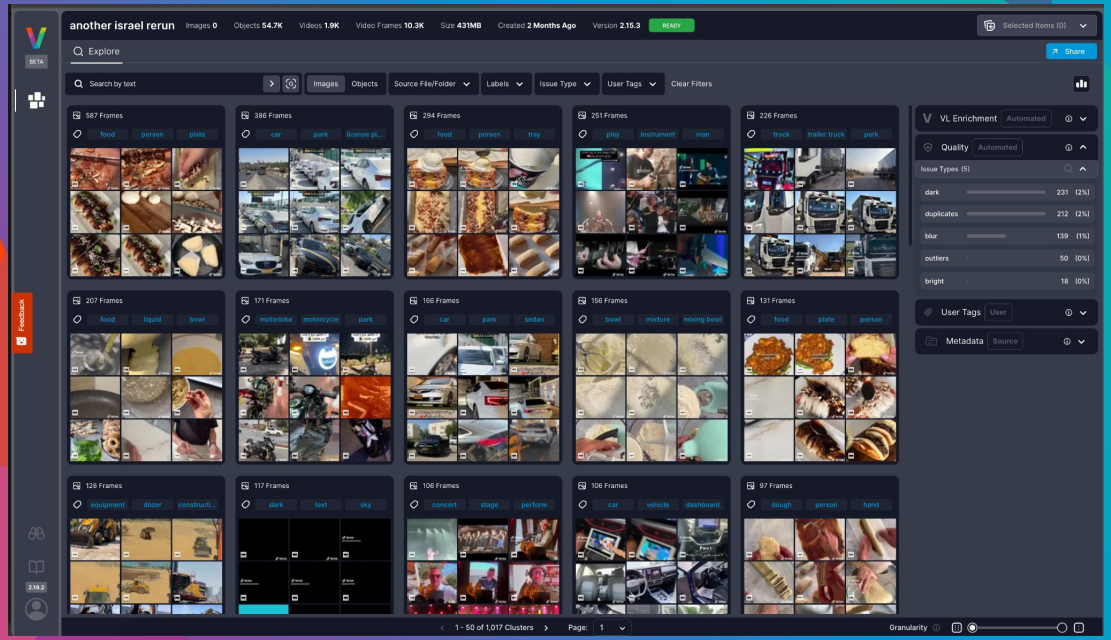
Visual Layer

Charting the Uncharted: User Videos in Social Networks

Dr. Danny Bickson



Joint Work

Dr. Danny Bickson

Co-founder & CEO

Co-founder and VP EMEA of Turi (acquired by Apple). CMU Researcher. Sr. Mgr at Apple. VLDB 23 test of time award.

Dr. Amir Alush

Co-founder & CTO

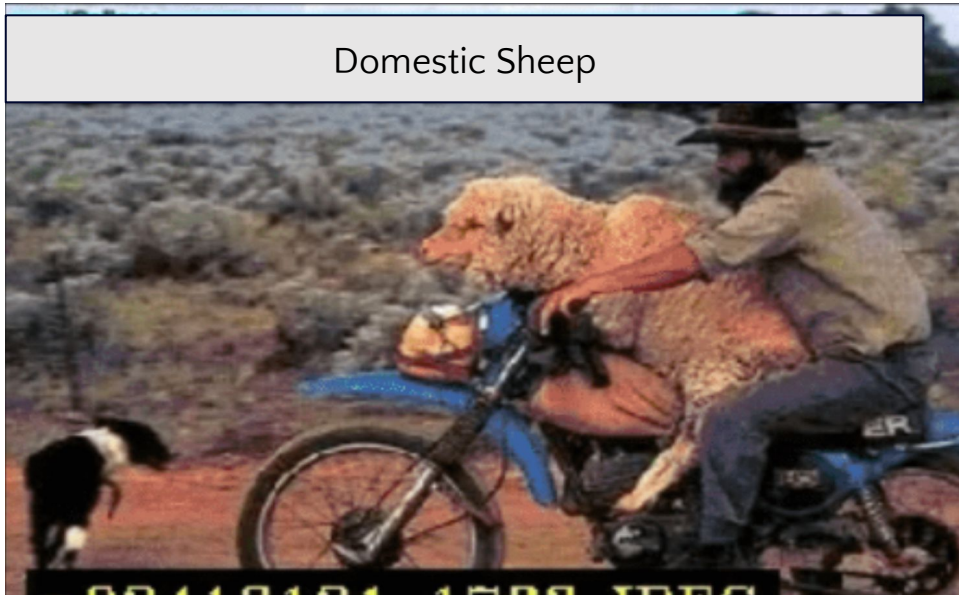
Co-founder and CTO of Brodmann17. Highly experienced in building CV/AI Groups and leading into production.

Prof. Carlos Guestrin

Co-founder & CSO

Stanford Prof, Co-founder and CEO of Turi (acquired by Apple). Sr. Dir. at Apple. Deep Learning Infra Team Pioneer.

Recap: AI Conference 2023



Visual Data Explosion

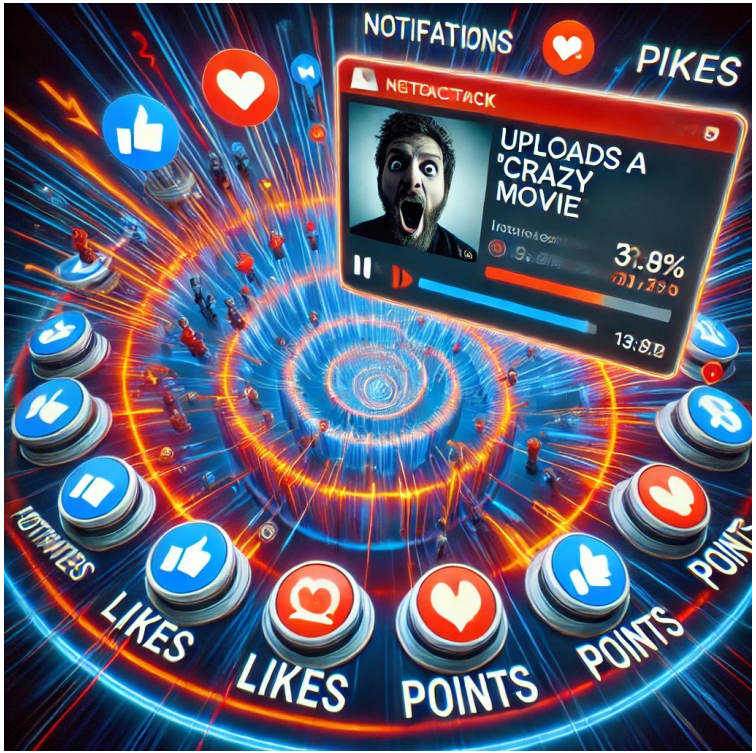
Tiktok Network

- 1.1B users
- 34M daily video uploads
- 770M monthly video uploads

Similar stats with Telegram, Facebook etc.

Social Network Feedback Loop

- Why are users uploading videos?
  - Social validation and recognition
  - Monetary rewards
  - Creative expression



The Question

What is “interesting” ?

TikTok
@hamza_alkaid25
مرداف مع كنون شوي 🤣🤣

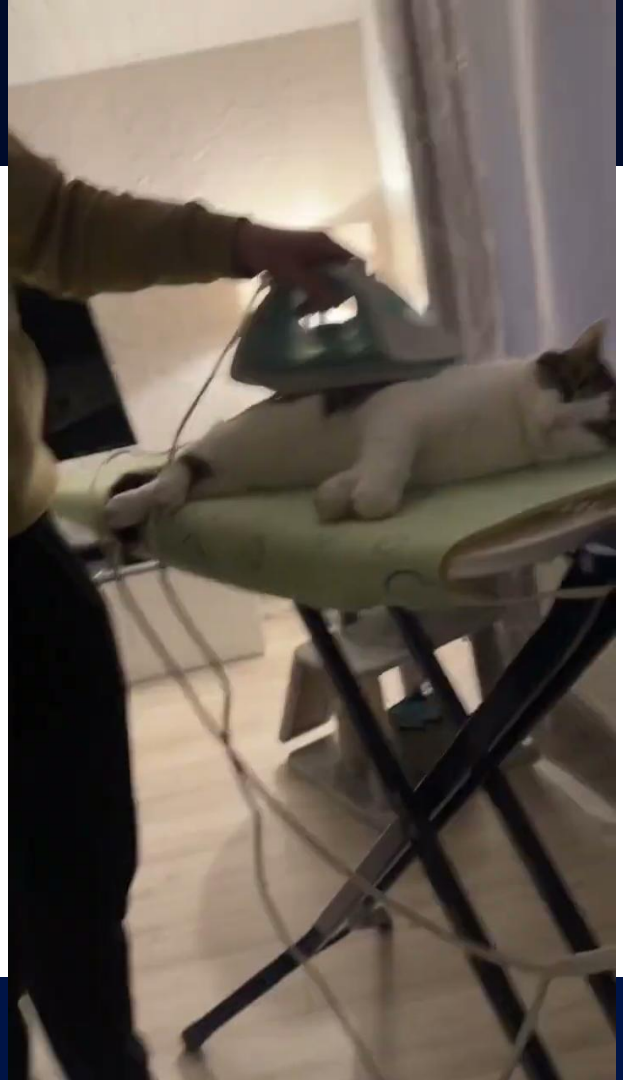
Great Value
Roasted
Garlic
Complete Potatoes
Great Value
X-LARGE
12 OZ (340g)

What is interesting?

- Food
- Unusual location
- + Gross factor (toilet)

What is interesting?

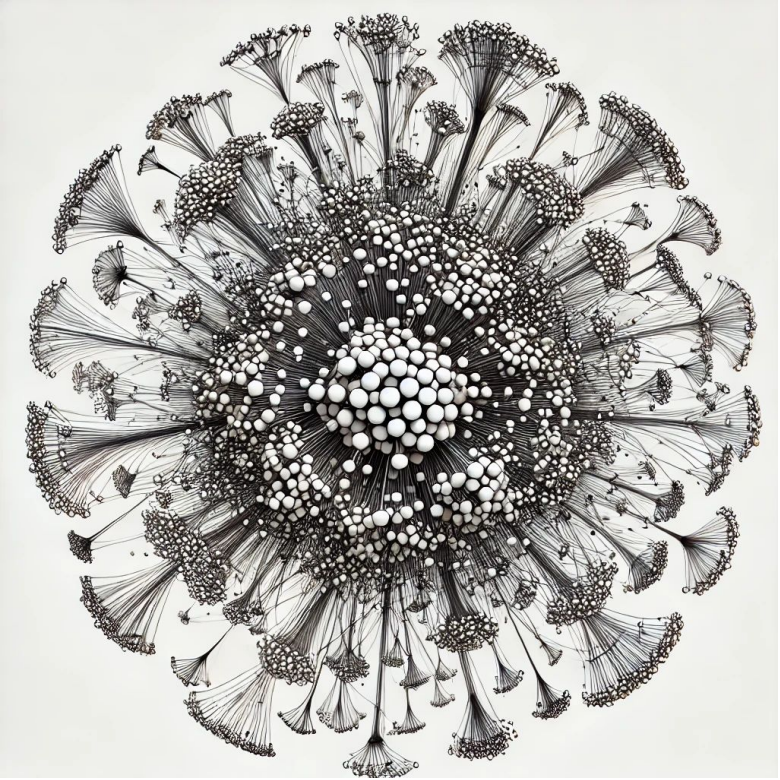
- Given the previous video can we get it to be more interesting?
  - Underwater?
  - During hurricane?
  - On a roller coaster?



- Surprise and Novelty: Uncommon, unexpected, or bizarre activities
- Humor and Absurdity
- Risk & Thrill

What is interesting?

- Outliers are interesting!
- What are the outliers of the outliers?



Graph Based Analysis for Visual Data

Graph Research

2023 VLDB Test of Time Award

Distributed Graphlab: A framework for machine learning in the cloud. Yucheng Low, Joseph Gonzalez (UC Berkeley), Aapo Kyrola, Danny Bickson, Carlos Guestrin, Joseph M. Hellerstein (UC Berkeley). VLDB 2012

Distributed GraphLab: A Framework for Machine Learning and Data Mining in the Cloud

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fastdup

Visual Layer Open Source

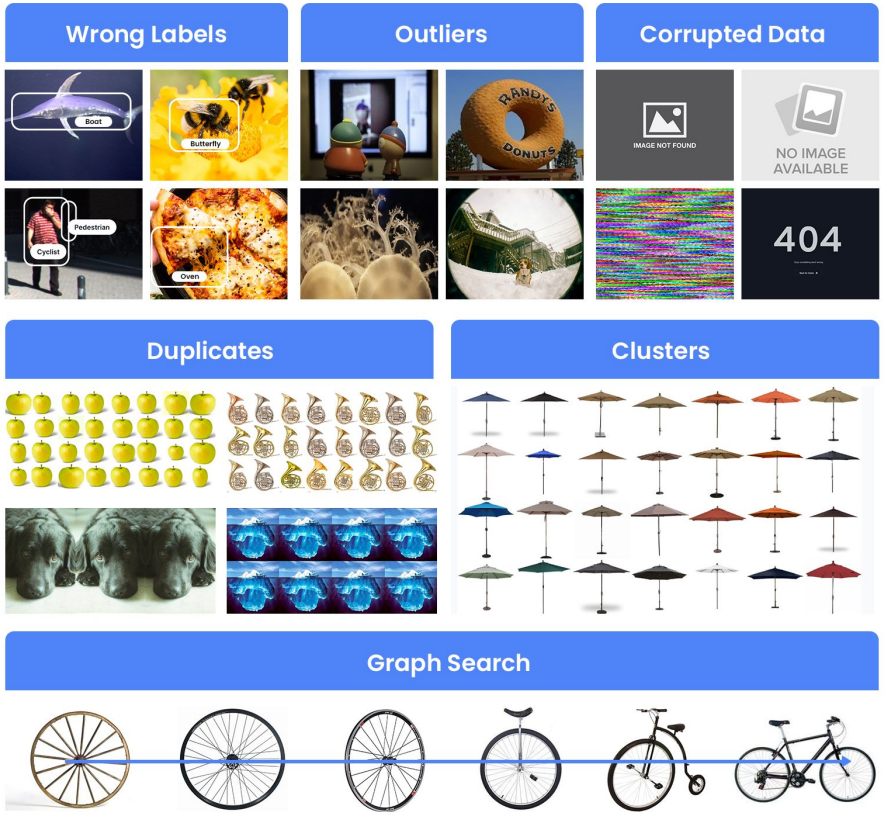
Trusted by 400,000+ Users

https://github.com/visual-layer/fastdup

1.6K+
GitHub Stars

400K+
Downloads

50B+
Images processed



Trusted by users from the following companies

Microsoft
Google
JFrog Artifactory
intel
FUJITSU
SIEMENS
Walmart
Baidu 百度
matrix Defense
NCR
Alibaba.com
aws
NETFLIX
meesho
Booking.com
JOHN DEERE
winnow
intuitivo
NAVER
APPLOVIN
Lightricks
Honeywell
Gesundai
highway to clinical-grade AI
sensory
NUVILAB
Food insight for the future
Playground
DV | DoubleVerify
Elbit Systems

INTRODUCING VISUAL LAYER

Your AI-Powered Visual Data Management Platform

How it Works?

01

Connect

Seamlessly integrate visual data from any source - cloud storage, local filesystem, databases and more, for a smooth onboarding process.

02

Organize

Rapidly index, organize and visualize your visual data with our cutting-edge graph engine, making it easy to manage and navigate large datasets.

03

Explore

Easily analyze and uncover insights using natural language queries, similarity searched, advanced filters, and interactive visualizations.

04

Enrich

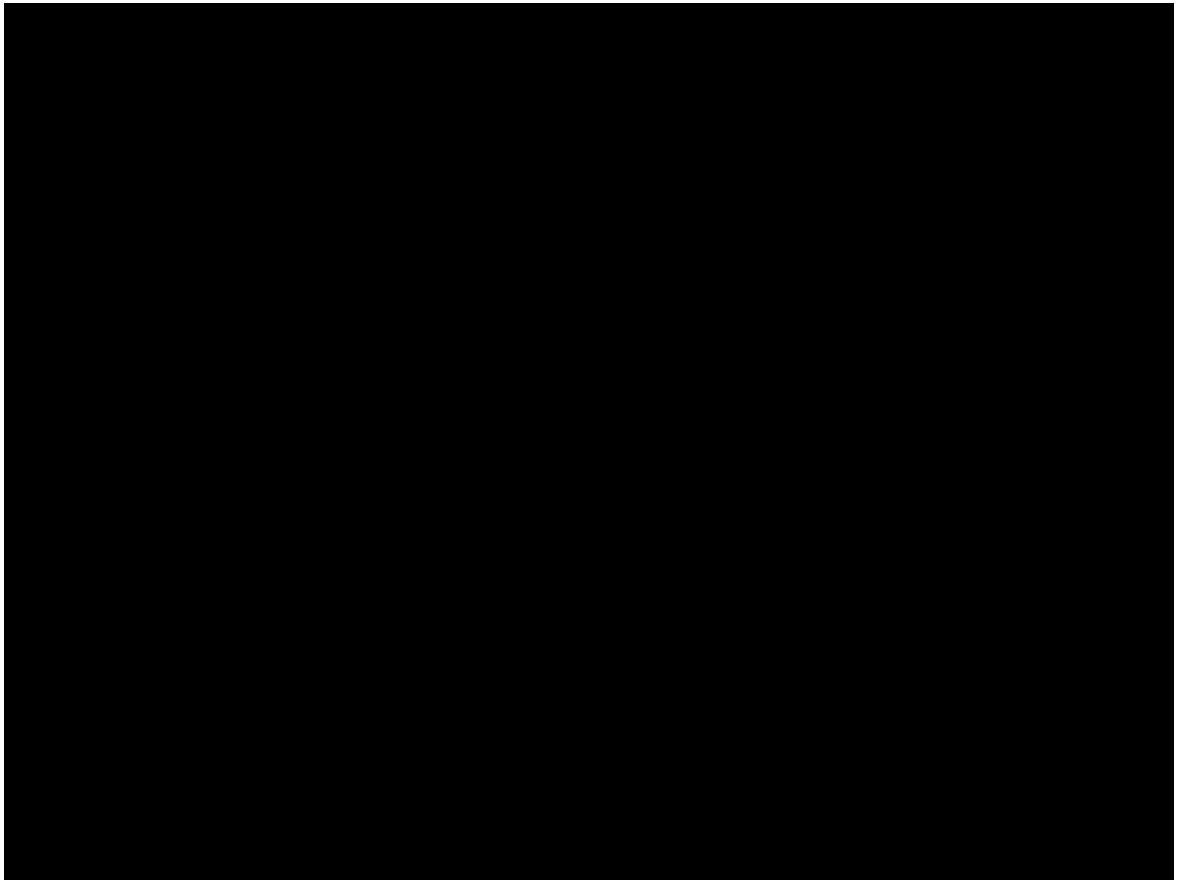
Enhance unstructured visual data with metadata and insights using VL proprietary models or any foundation model, enriching your datasets for better analysis.

05

Extract

Extract curated, high quality datasets to optimize downstream processes and AI model training, ensuring your data is ready for immediate application.

Demo Time!



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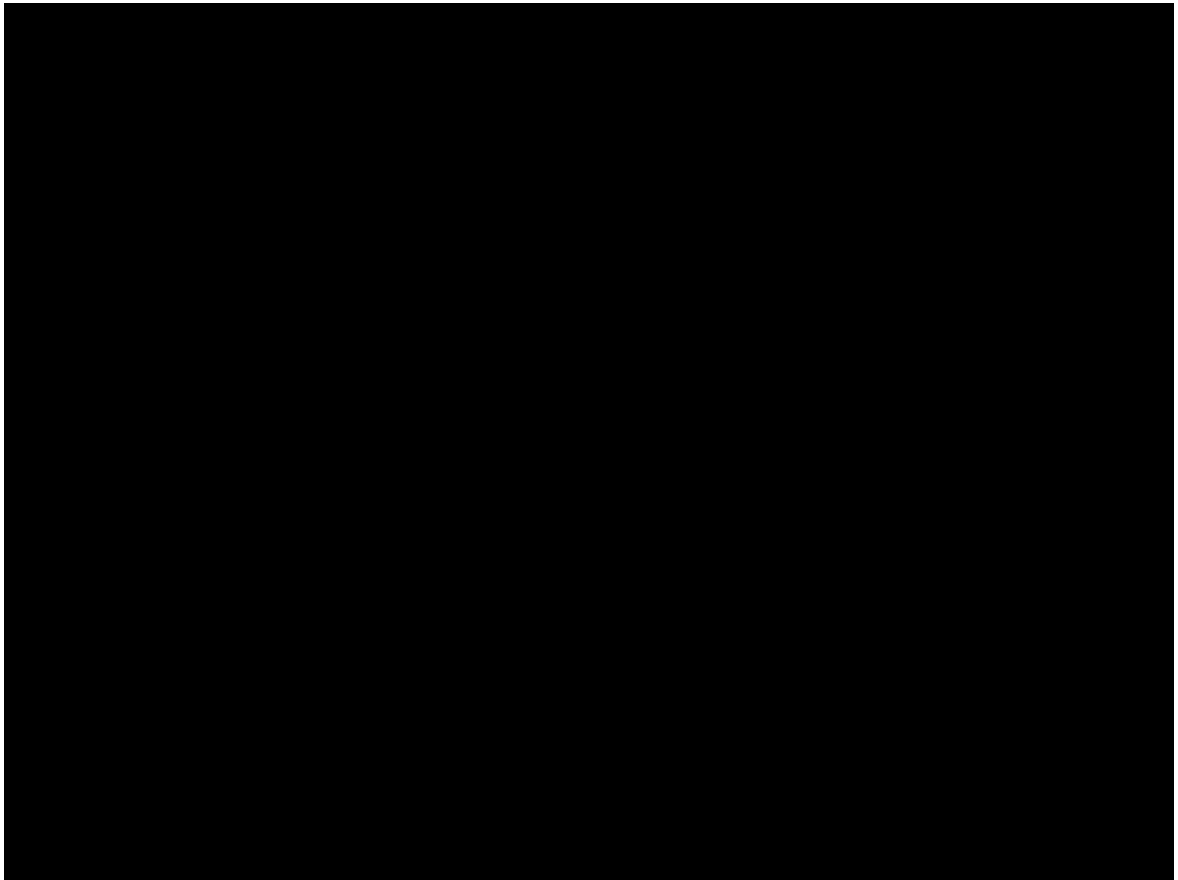
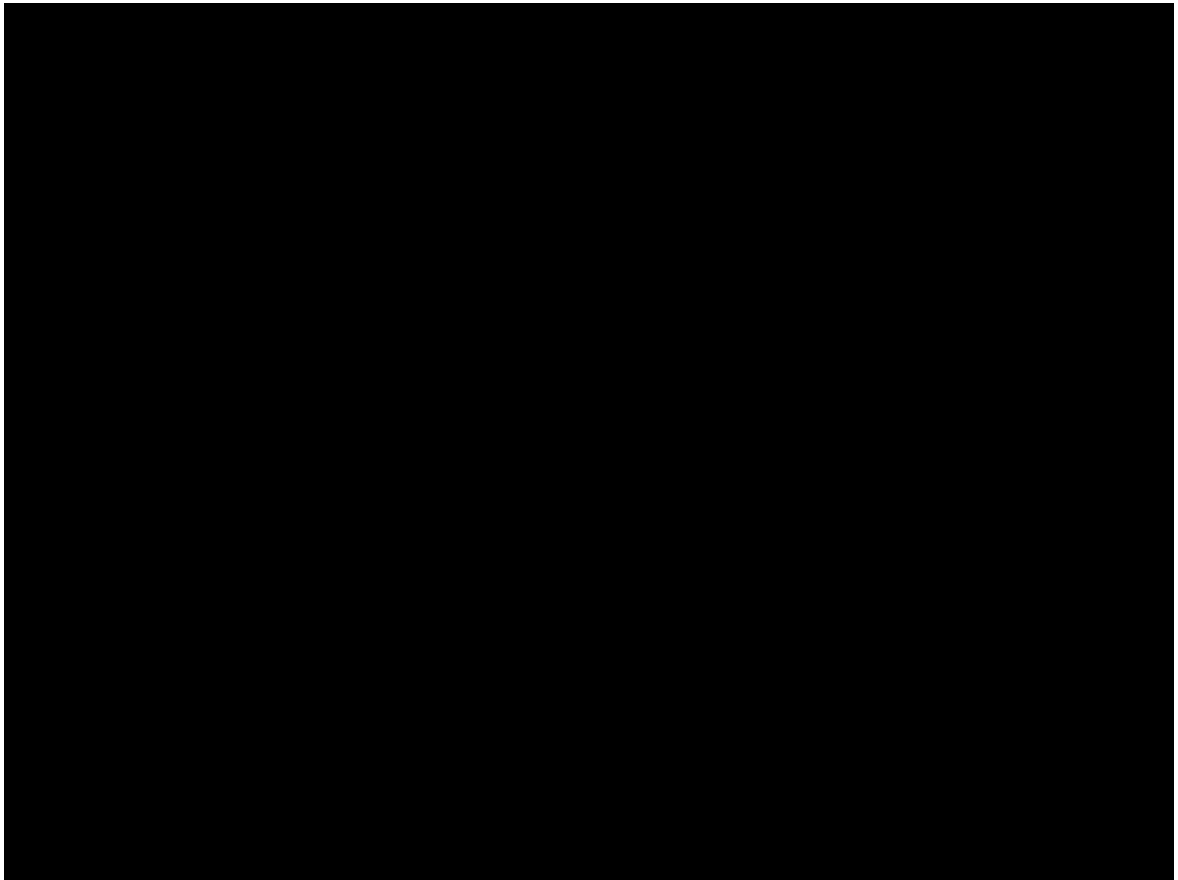


Demo Time!



Can We Do More?

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Dealing with Unknown Objects

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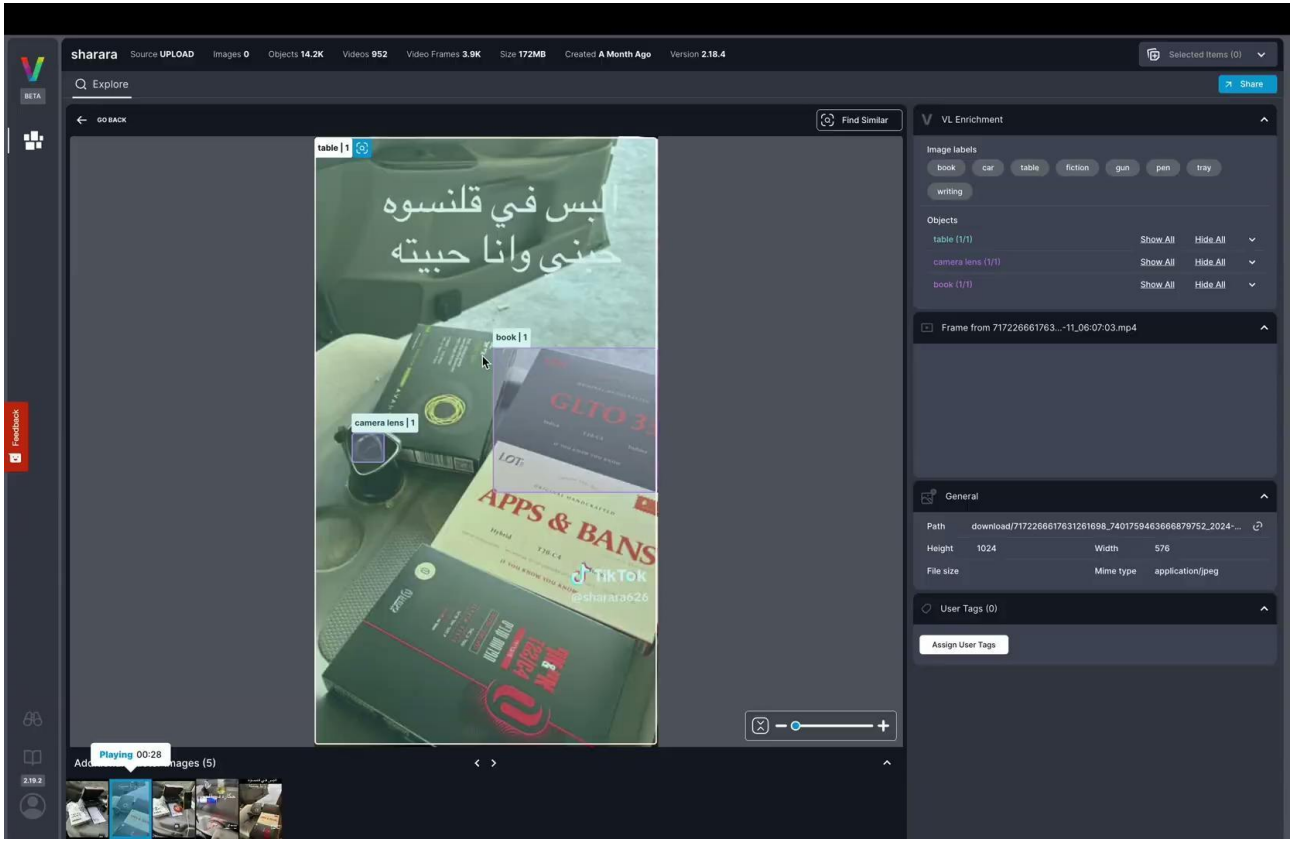


Key Benefits

Gain 100% Visibility

Connect to all your data sources in one place and gain complete visibility and control over your visual data. Effortlessly organize, explore, and uncover insights with precision and ease whenever you need them.

Boost Productivity

Save time and costs spent on manual data curation, streamline and automate workflows, scale insights with AI-powered analytics, and achieve rapid results via API or a no-code UX.

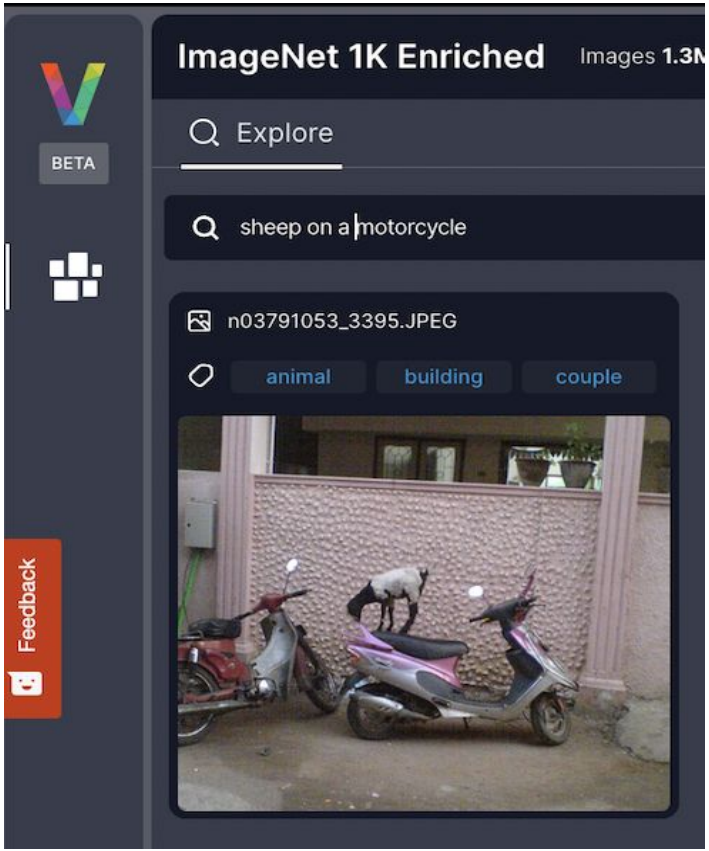
Run Anywhere

Whether you're cloud-based or on-premises, Visual Layer has you covered with the most options to deploy. Enjoy the flexibility to connect to your data wherever it lives.

Work at Scale

Effortlessly scale from a few gigabytes to dozens of petabytes through an API or our powerful web-based UI.

Summary



https://app.visual-layer.com

Thank you

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