Dataloop covers the entire AI lifecycle, from development to production. Get ready – we're bringing AI technology to the masses.

# Here's How Dataloop Powers the Al Lifecycle

Dataloop is an enterprise grade endto-end data platform for building
and deploying powerful AI systems.
It includes AI-assisted data labelling
and automatic annotation for
hyperspeed dataset creation, robust
data management for visualising
and searching through troves of
unstructured data, quality control
toolchains and an AI cloud environment
for customizing production data
pipelines for weaving the human-in-theloop for data validation.

learning while reducing costs and saving extensive engineering efforts of complex tools and speeding the time to market.

With a single, affordable and scalable SaaS platform for machine learning, enterprises can focus their resources where they are needed most, on driving their core business value.





### How intelligent is your machine learning?



# We say, as intelligent as the humans behind the machine.

Humans are crucial to any Al-based system. They are the ones training the data models, the ones completing the annotation process, and the ones feeding the algorithms that keep the Al cogs turning.

Unfortunately, preparing high-quality data for computer vision use cases is lengthy, complex, and expensive, creating a barrier to entry that many enterprises struggle to overcome.

#### Until now.

Dataloop accelerates machine learning projects, by adding human validation in a continuous loop, improving the likelihood of success when shifting the model out of the lab and seamlessly transferring it to the real world.

The results? The highest-quality data, fed and improved in real-time by a continuous feedback loop of authentic and validated information, directly from your production environment.

Our specialty is computer vision technology, and our end to end data engine supports you at every stage of the data preparation cycle, increasing productivity, revenue, and growth via efficiency, intelligence, and automation.

# Addressing the Retail Industry Challenges with Dataloop

#### **Powering Vision in AI Applications for Retail**

Retail is considered an ever-changing industry, from cashierless stores, warehouses and shelf management systems, to personalized production recommendations and waste management, the list goes on.

This is where Dataloop's platform is able to integrate automatic active learning with human-in-the-loop functions for data validation, performed at every step of the pipeline. The result is a pipeline that is constantly updated with new, authentic and

validated data coming directly from your production environment. This ensures that your models produce outputs with supreme accuracy, even in the most dynamic and diverse settings.

It is equally important to use this data in order to enhance the customer experience. Retail marketers can more easily utilize segmented data from their product catalogs and provide a more personalized shopping experience for their audience without the guesswork.

#### Dataloop's enriched AI capabilities specific to the retail industry:



Cashierless checkouts



Shelf management



Product recognition



Retail logistics



Waste management



Shoplifting prevention



**Virginia Puccio** Head of Data Operations

#### **STANDARD**

"We love working with Dataloop; their data management platform allows us to simultaneously ensure multiple projects are labeled, tasked and QA'd regardless of where our workforce is based."

# Dataloop: A Single Technology Stack for the Whole Data Preparation Process

At Dataloop, being industry or use case agnostic, we provide the technology stack from annotation and training, through to validation and production. As a full cloud based solution, Dataloop scales to manage petabytes of data, processing millions of images in a best-of-breed data management system that was built for purpose.

### The Three Key Products of the Dataloop Platform



Data Management for Al: A single, secure data management system designed for visualizing all of your unstructured data and seamlessly integrating with your existing cloud storage. The entire data organization including your data scientists, data engineers and data operators can search, filter, sort, clone, merge and query the datasets at ease and at speed. We offer robust and resilient tools that streamline the entire data preparation flow from end to end.



Al-Assisted Annotation Platform: A robust data annotation platform supporting a long list of data types and tools such as images, video and audio. Al-assisted tooling for accelerating the production of datasets and an advanced data ontology builder for complex labeling tasks. Hyper flexible and extendable capabilities for integrating smart automation models to reduce the time it takes to label unstructured data. Fully integrated QA and feedback tools weaved in to allow real time collaboration between all parties.



**Automation & Production Pipelines:** A developer platform to give data teams the tools and technology to create custom serverless functions and pipelines using our Python SDK and our robust Rest API. Our interactive and friendly interface makes it simple, fast and intuitive to create event-driven automation pipelines, models and logic to generate functions to process your data, weave human validation to add unparalleled accuracy and control.

### Dataloop's Competitive Advantage in the Industry



**Highest-Quality Data:** Automatically run quality assurance machine validation and model comparison before handing any outliers over to human annotators. Real time data debugging and collaboration tools.



**Cost-effectiveness:** Augment human intelligence with Al-assisted automation, one-click pre-trained classes and built in algorithmic trackers that reduce your time spent and data cost significantly.



**Efficiency:** No need to sync multiple vendor solutions, Dataloop does it all, so you can create, manage and collaborate across the data lifecycle, from a single point of access.



**Time to Market:** We accelerate the speed of annotation by up to 90%, helping enterprises reach the quickest possible time to market for their Al projects.



**Deploy Anywhere:** On virtual private cloud (AWS, Google or Azure) or on premises deployments are offered via a Kubernetes Docker cluster. No need to move over your data.



**Data Security & Privacy:** Enterprise ready with advanced authentication enforcement, identity management, storage integration, GDPR compliance, encrypted data communication as key measures to ensure data is kept private and protected.



**Advanced Automation:** Add cutting edge patented technology applied with dozens of algorithms to accelerate and automate annotation giving super powers to your manual labelers.



**Human Workforce Management:** Grade, score, track and manage your workforce through intelligent analytics and reporting, in real-time.