

Videonetics DeeperLook™ AI-DL Analytics Framework on NVIDIA GPUs



Versatile, futuristic and highly accurate video analytics solutions for intelligent decision support

Videonetics AI-enabled Video Analytics software analyses, extracts and generates actionable information from a humongous amount of video and image data. Powered by a novel Artificial Intelligence (AI) and Deep Learning (DL) framework, DeeperLook™, it is designed to serve as an intelligent decision support system for users.

The Unified Video Computing Platform powered by DeeperLook™ helps in developing and deploying Video analytics applications in the security, safety and traffic domains.

Intelligent Video Analytics

DeeperLook™ powered solutions detect various patterns, object attributes, activities, actions, behaviours and events. It offers a suite of analytics for various security and safety applications such as anomaly detection for vehicles, people and crowd, attributes-based search, auto-tracking of objects, video summarization, activity heatmaps, personal protective equipment detection, etc.

The framework is highly customizable, compute efficient, and compatible with on-premise, edge-based and cloud-based computing environments. It uses indigenously designed AI and DL engines, each computationally optimized for generic as well as specific set of tasks.

Verticals

- Safe and Smart Cities, Municipalities
- Industries, Enterprises, Oil & Gas, Warehouses, Gated Communities, Residential
- Ports, Airports, Transportation

Solution Capabilities

- Indigenously designed 50+ trained models of deep learning-based Video Analytics
- Intelligent Traffic Solutions

Platform Features

- Unified Video Computing Platform
- Highly customizable
- Framework for domain-specific and customized application development
- Easy to deploy and scale up, cloud ready
- Fully tested under the Metropolis program
- Unlimited scalability, flexible architecture, deployable across various edge computing devices
- High accuracy and highly optimized GPU resource requirements

Intelligent Traffic Management

Videonetics Intelligent Traffic Management System (ITMS) offers various vehicular and traffic management analytics to detect and track vehicles, extract attributes including registration number and support for 'vernacular' license plates. The unique investigation features detect wanted vehicles, traces the trajectory of vehicles, and identifies them with attributes, location and time. It offers versatile on-premise, edge-based and cloud-based deployments and the flexible distribution of computation at each level.

Videonetics on the Metropolis Platform *Video Analytics at Scale*

Videonetics DeeperLook™ framework offers accuracy, scalability and highly optimized resources to deliver the futuristic solutions under the Unified Video Computing Platform umbrella.

DeeperLook™ is optimized on NVIDIA® GPUs, validated and benchmarked on the Metropolis Application Framework. Due to its unique implementation of generic to application specific Reduced Neural Networks, it can deliver best in class throughput on NVIDIA GPUs making it the compelling choice for various video analytics requirements of all the industry segments.

Easy to Deploy and Manage

- Micro-services based architecture
- Fog computing with judicious distribution of compute load
- Application specific and computationally optimized engines
- Easy to deploy through Docker Containers and resource management by Kubernetes
- Agnostic to cloud platforms

Unified Video Computing Platform Architecture



Authentication and API Services

Unified Interface for Video Image Data and Messaging Services

Video Management Servers	Streaming Servers	Messaging Servers	Database Servers	DeeperLook™ VA Servers
Docker	Virtual Machines	Storage Services / Devices	NvDocker	DeepStream + TensorRT