Empowering Businesses with Accessible AI for Data-Driven Decision Making: Aurify's Video Analytics Solutions

Aurify's solutions, powered by and optimized with Intel® Technologies, eliminate the barriers to implementing artificial intelligence, enabling businesses across industries to extract actionable insights from their video streams.

Aurify Systems

About Aurify

Aurify Systems empowers businesses to harness the full power of AI with ready-to-use video analytics solutions. With Aurify's solutions, businesses of all verticals and sizes, can overcome common barriers of AI adoption, automate their day-to-day business tasks, and capture advanced analytics.

In today's world CCTV and camera systems across sectors are nothing new. They've become ubiquitous across a wide variety of industries, with more than a billion cameras estimated to have been installed globally.[1] It's no surprise that businesses are generating mass amounts of video footage, more than ever before, and certainly more than they can monitor or analyze manually. Instead of paying to store mass volumes of untouched video for review, companies are looking to leverage vision analytics to capitalize on the opportunity this footage provides. Vision AI has enormous potential to solve many of the world's most pressing business problems, enabling organizations to extract valuable business intelligence from their video streams. These insights can serve to improve efficiency, monitor critical operations, spur new revenue opportunities, and drive decision-making based on real data.

However, businesses may hesitate to implement AI-based video analytics due to common barriers to adoption, such as:
- Complex and expensive AI model training
- Lack of data science expertise
- Investments in hardware and infrastructure
- Meeting privacy and compliance regulations
- Managing integration with current video systems
- Scaling video analytics to multiple video streams
- The total cost of ownership

Despite these challenges, companies recognize the value of these solutions and advanced video analytics capabilities are drumming up high demand. The global video analytics market size is projected to grow from $8.37 billion in 2023 to $37.55 billion by 2030.[2] Those who fail to adopt video analytics may risk falling behind their more data-informed competitors.

To mitigate these challenges and stay head-to-head with their competitors, businesses are seeking to collaborate with AI solution providers committed to making AI affordable, user-friendly, data-privacy forward, easy to implement, and to help facilitate the long-term success of AI-based video analytics.

Aurify Video Analytics Solutions: Empowering Businesses to Optimize their Operations and Drive Better Outcomes

Aurify Systems offers AI-based video analytics solutions that enable automation for tasks and processes while capturing advanced analytics. Their multi-model solutions coupled with machine learning and deep learning technologies enable their customers to better understand and optimize their operations, derive patterns from historical data, and drive informed sales strategies.

Specifically, Aurify provides camera-based business automation and valuable business intelligence across the following verticals:

- Retail
- Hospitality
- Banking and Finance
- Manufacturing
- Education
- Government
- Energy & Utilities
- Real Estate
- Smart City

How it Works

At a high level, Aurify's system accepts video feeds and images from business camera infrastructures. This data passes through a use-case specific application tailored to the customer needs to extract valuable analytics that would otherwise be challenging or impossible to collect manually. Depending on whether the customer has chosen a real-time or deferred use case, Aurify automates alerts to mobilize quick responses to incidents or anomalies and presents data trends through customizable dashboards and reporting tools. This approach empowers organizations to make data-informed decisions, improve performance, and prepare for the future, regardless of their industry.

Customer Use Case	AI Model Capabilities	
Customer Profiling	• People counting analytics • Conversion analysis • Dwell time in store/category/POS areas • Repeat customer analysis (facial recognition)	• Customer trail tracking • Heat maps • Merchandising auto-audits & auto shelf monitoring
Safety Compliance	• PPE compliance • Incident detection • Action detection & crowd gathering	• Human proximity to unsafe zones • Hazardous zone monitoring
Operations	• Auto task tracking / productivity measure • Predictive maintenance through motion amplification • Machine runtime analysis with shutdown alerts • Zones manned / unmanned tracking • Quality Analysis through imaging • Item counting / Unorganized cargo detection • Workforce & Visitor Management (facial recognition)	• Queue management • Evacuation assistance during emergencies • Generative AI on premise • Energy wastage reduction through imaging • Camera health monitoring with tampering alerts • Vehicle monitoring with violation alerts • Sales / inventory forecasting
Customer Experience	• Repeat customer analysis (facial recognition) • Average customer visit frequency • Voice Of Customer capture (emotions and gesture)	
Surveillance	• Perimeter security & intrusion alerts • Asset protection • Anomaly detection	• Identify restricted individual (facial recognition) • Un-attended objects and thefts detection
Lead Generation	• Interactive digital content (Kiosks) • Real time intelligence to digital signages for enabling dynamic content	

Why Do Customers Choose Aurify Video Analytics Solutions?

Low Capital Expenditure

Adopt high-performance video analytics solutions that integrate with existing CCTV camera and computing infrastructures to minimize financial investment. With Aurify solutions, there's no need for additional hardware installations in most cases, that are expensive or difficult to manage, such as specialized cameras or devices, beacons, or sensors.

Pre-trained AI Models

Aurify offers ready-to-use models that have been pre-trained with over 1 million images to provide accelerated deployments with higher accuracy than industry standards. This reduces the need for massive data sets or complex, time-consuming model training that can lead to delayed deployments and increased costs.

Highly Secured

Aurify is GDPR compliant and in alignment with regional legal requirements. The software runs locally on the edge, ensuring that all data remains on-premises and under the business's control. No images, videos, or data are stored on external servers or networks unless requested.

Custom Multi-Model Video Analytics

Unlike costly AI-powered cameras with fixed features like intrusion detection or people counting, Aurify Solutions empowers businesses to select from an expansive library of features. This flexibility allows businesses to access multiple video analytics features without the need for different cameras or vendors and tailor the deployment to their needs.

Accelerated Remote Deployments

Aurify Solutions offers remote deployments to enable fast and cost-effective implementation across hundreds of locations. For instance, instead of sending Aurify's team to 500 individual stores, they can remotely deploy and scale the video analytics solutions globally.

End-to-End Support

Gain an AI technology partner to seamlessly integrate video analytics with an existing camera infrastructure with minimal angle changes, repositioning, and disruption to business operations. Alternatively, Aurify Systems can help deploy a solution from scratch if a business doesn't operate CCTV footage.

The Deployment Process

Aurify recognizes that every business and industry is unique, and offers a range of flexible deployment models tailored to different needs. Whether opting for an on-premises, cloud-based, or hybrid deployment, Aurify's team provides a seamless deployment to maximize the benefits of their cutting-edge video analytics solutions.

Simplified Deployment Process: Steps to Success

Aurify Systems has designed the deployment process with simplicity and effectiveness in mind, ensuring a smooth transition to enhanced video analytics. A typical deployment process follows the following steps:

1 **Needs Assessment:** During preliminary discussions, customers will fill out a detailed questionnaire to capture essential information, including the scope, number of required deployments, the details of any existing camera and computing infrastructure, etc.

2 **Prerequisite Specifications:** Based on this information, Aurify System's team provides specifications on hardware and software prerequisites. This includes specifying the number of cameras and machines required for edge processing.

3 **Customized Setup:** Once the terms of the engagement are clarified, Aurify Systems will partner with customers to leverage their existing camera infrastructure and computing resources to integrate the desired video analytics solutions. In cases where customers don't have a camera infrastructure, Aurify can deliver the solution end-to-end with third-party vendors for any required hardware installations.

Aurify in Retail: The StoreScript© Solution

Empowering Retailers with In-Store Analytics

Retailer Challenge

In the world of retail, data is paramount. Understanding the customer experience can shape the success of their business. However, for retailers with large-scale operations collecting and managing this data to inform decentralized strategies and drive sales opportunities can be a monumental challenge.

Many retail chains rely on their stores to manually capture important customer data, such as customer count, conversion, and more. However, this creates room for error which can affect decision making and ultimately their bottom line. Retail chains need a more reliable solution to capture business critical data across the board.

Solution

Aurify's StoreScript© proprietary solution is a comprehensive video analytics solution that empowers retailers to gain actionable analytics from their stores to optimize their operations, deliver a superior customer experience, and maximize sales.

Included Retail AI Models
Retailers can pick and choose one or a combination of StoreScript's AI models to implement in their outlets:

Customer Counting	Mood detection of shopper	Repeat Customer Analysis
Theft Detection	Gesture-Based VOC Capture	Customer Time Spend in Category
Walk-In Prediction	Queue Management	Customer Conversion Rates
Gender Demographics	POS Monitoring	Store Heatmap
Age Analysis	Operational Hours Monitoring	Dwell time
Customer Journey Tracking	Visual merchandising audits	Auto Shelf Monitoring

With StoreScript©, retailers can gain the following advantages:

Optimize Campaigns

Aurify's video analytics solutions enable retailers to automate the collection of essential store and customer demographic data across all their outlets. This capability empowers retailers to inform decentralized buying, marketing, and promotional strategies based on high-accuracy data that eliminates possible store-level errors. Retailers can also measure campaign effectiveness and make data-driven adjustments using captured footfall to conversion information.

Increase Profits

By consulting detailed video analytics on customer traffic and conversion patterns, retailers can make the right decisions regarding their store planograms to increase product visibility, enhance the shopper experience, and maximize sales opportunities.

Enhance Operational Efficiency

Beyond data collection, Aurify's solutions also directly increase operational efficiency at the store level. By configuring Aurify solutions to provide store associates with real-time alerts regarding issues like empty shelves, long lines, theft, and negative shopper sentiment, associates can quickly take corrective measures to improve store performance.

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Aurify Leverages the Capabilities of Intel® Technology to Deliver Optimized Performance

Aurify Systems partners with Intel® technology to enhance the performance, accuracy, and cost-effectiveness of its video analytics solutions. By strategically incorporating Intel hardware and software components, Aurify Systems can deliver superior results for customers by optimizing the overall solution.

Intel® Core™ Processors: Aurify Systems leverages Intel® Core™ Processors to perform advanced AI-powered video analytics at the edge. These value-packed processors deliver high-clock speeds and accuracy within small-form-factor hardware, making them optimal for use in edge devices. Intel® Core™ Processors are equipped with AI acceleration features, such as Intel Deep Learning Boost (DL Boost), to enhance the accuracy and speed of video analytics tasks that involve AI and deep learning algorithms. Intel® Core™ Processors are also designed to be energy efficient, which is crucial to extending the operational time of edge devices without frequent recharging or replacement of batteries. In summary, this hardware is crucial to enabling edge devices to process video data locally, while reducing latency and improving the overall performance of Aurify's video analytics applications.

Intel® Xeon® Processors: Aurify Systems leverages Intel® Xeon™ processors to build high-performance server systems tailored for executing video analytics solutions at the edge. Their robust architecture offers high-performance computing across the fastest-growing workloads, critical to providing uninterrupted real-time video analytics applications.

Intel® Distribution of OpenVINO™ Toolkit: To perform concurrent, real-time video analytics within compact, power-constrained edge devices, Aurify needs to offer highly optimized AI models to deliver high performance. To do this, Aurify Systems leveraged the Intel® Distribution of OpenVINO™ Toolkit's AI model optimization tools, such as model compression, quantization, and more, to make the AI models less computationally intensive. This allows Aurify to enhance model throughput while maintaining above-industry-standard accuracy within edge devices. The toolkit is also optimized for a wide range of Intel hardware, from edge devices to servers, so Aurify Systems can scale solutions up and down across customers' differing computing power needs.

In Summary

Aurify Systems offers an extensive range of ready-to-use, AI-powered video analytics designed to automate essential business processes. The platform provides seamless integration options, flexible deployment, and dedicated customer support to help enterprises of every size simplify their path to digital transformation and harness the full potential of AI. Connect with our experts today to explore how Aurify Systems can empower your business at www.aurifysystems.com.
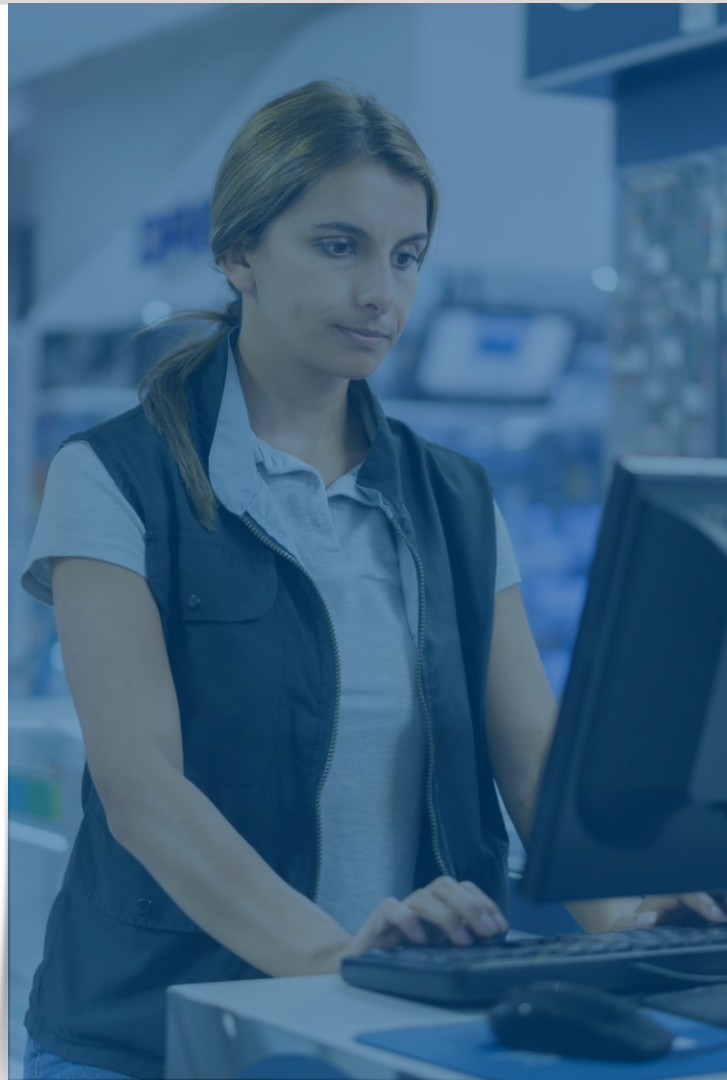
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To learn more about Intel® technologies, visit:

- The Intel® Distribution of OpenVINO™ Product Page
- The Intel® Processor Family Product Page

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Sources

1. CCTV Camera Market Size, Fortune Business Insights, 2022
2. Video Analytics Market Size, Fortune Business Insights, 2023

Notices & Disclaimers

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