

Eyes on the Game:
How a Sports Retailer
Scored Big by Converting
CCTV Feeds into Actionable
Retail Intelligence

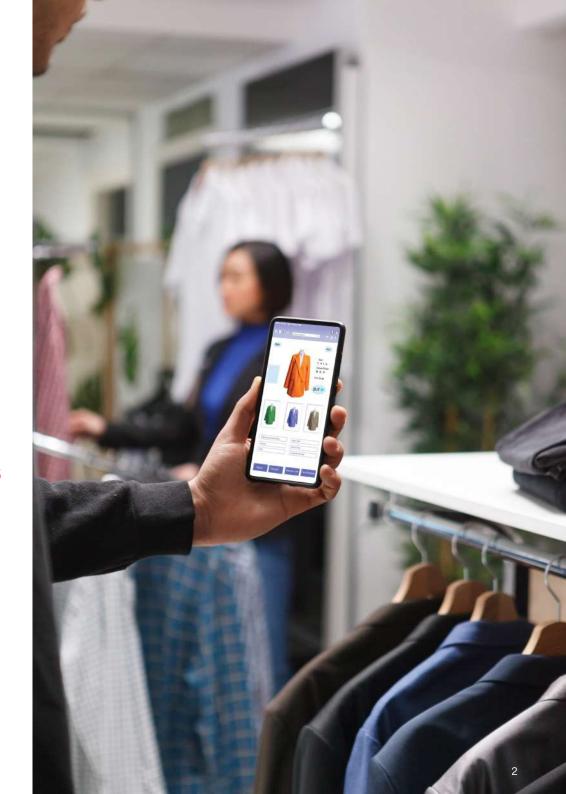
SUCCESS STORY

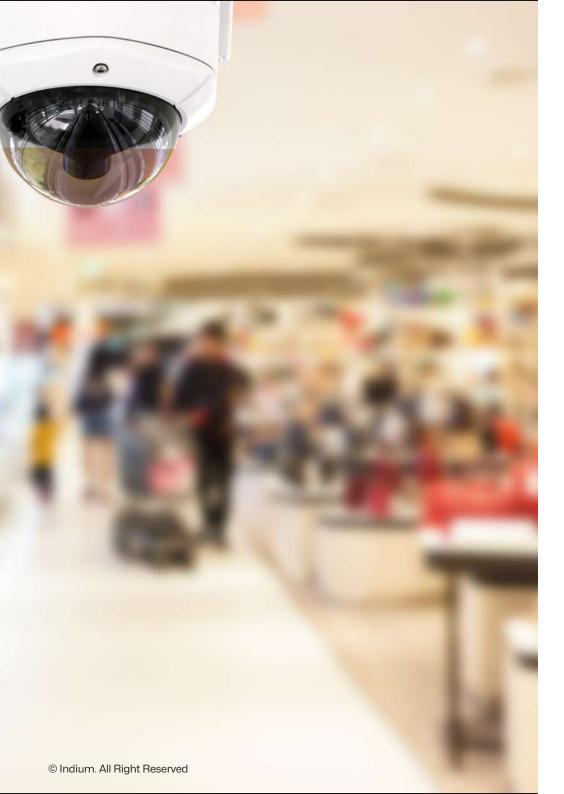
#### **Client Overview**

The client is a French sporting goods giant with over 1,500 stores across 45+ countries, making them one of the largest athletic retailers in the world. From tennis rackets to advanced scuba diving gear, they offer a vast range of sports equipment catering to athletes of all levels. In addition to retail, the company owns more than 20 in-house brands and operates multiple research and development centers across France, dedicated to pioneering innovative and high-performance sports gear.

## Decoding Retail in Real Time: The Need for Smarter, Faster Insights

Operating in the fast-paced world of French sporting goods retail, the client required real-time visitor analytics to drive quick, data-backed business decisions. Beyond just tracking footfall data, they aimed to merge this data with point-of-sale (POS) insights, creating a holistic view of customer behavior and sales trends. The goal? A seamless yet powerful solution capable of delivering precise, actionable intelligence—fueling smarter strategies and a sharper competitive edge.





## Cracking the Code: Unraveling Hidden Gaps in Retail Intelligence

To stay ahead in the competitive French sporting goods retail market, the client aimed to unlock the full potential of in-store CCTV cameras. Their challenge was to transform raw surveillance footage into valuable data-driven insights to enhance customer experience and business performance.

- ▶ Mapping the Customer Journey: The client wanted to convert security camera feeds into interactive store heatmaps, identifying high-traffic zones and optimizing store layouts for better engagement.
- Understanding Footfall Like Never Before: By analyzing foot traffic variations by store section and time of day, they sought to fine-tune staffing, product placement, and promotional strategies.
- ▶ **Spotting Missed Sales Opportunities:** Using facial recognition technology, they aimed to track customers who left without making a purchase, helping refine sales strategies and improve conversion rates.

The real challenge? Implementing a seamless, high-accuracy solution capable of delivering real-time, actionable insights without disrupting store operations.

#### From Surveillance to Strategy: Unlocking Retail Intelligence with Al

Indium analyzed the video feed data collected from the cameras installed on the shop floor and developed a solution to fulfill the client's business use cases.

We helped the client transform their CCTV cameras into a powerful source of business intelligence, using Al-powered video analytics to gain deeper insights into customer behavior, store traffic, and sales opportunities. By leveraging real-time image processing and neural networks, the solution provided a data-driven approach to optimizing retail performance.



#### Mapping the Store with Intelligent 3D Visualization:

A custom 3D image mapping system recreated the store layout, allowing for precise tracking of customer movement and high-traffic areas.



### Al-Enhanced Smart Cameras for Footfall Analysis:

ImageAl was utilized to enable security cameras to caount the number of customers entering the store during specific time periods. Customized functionality was also incorporated to track customer activities in specific areas of the shop.



#### Development of a Neural Network Model:

A neural network model was designed for video analytics and image processing, enabling intelligent data extraction from CCTV footage.



# Model Optimization for Enhanced Accuracy:

The model was continuously analyzed and optimized to improve accuracy in detecting and interpreting customer movements and interactions.



#### **Outlier Detection in Store Data:**

Anomalies in collected data points were identified, with a particular focus on movement patterns within various shelf zones to refine store layout strategies.



#### Training with a Comprehensive Dataset:

The neural network model was trained using a large dataset of images representing different classes of objects and people. Accuracy was progressively enhanced through detailed annotations and rigorous testing with sample videos.

With this Al-powered video analytics solution, the client was able to turn passive surveillance into an active business tool, driving smarter decisions, optimized operations, and enhanced customer experiences.

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# Turning Footage into Fortune: The Measurable Impact of Video Analytics

- ▶ 80% Accuracy in Customer Behavior Analysis: The models achieved great accuracy in identifying customer behavior patterns, leading to better customer targeting and increased engagement.
- Conversion Rate Optimization through POS Analytics: A comprehensive analysis of conversion rates from visitor statistics to live sales through the POS system, combined with customer interaction insights across different product sections and product-specific conversion rates, led to significant improvements in product placement and cross-selling across various categories.
- ▶ 15% Increase in Customer Satisfaction: Post-implementation, customer satisfaction improved, reflecting a better shopping experience and more personalized engagement.
- ▶ Enhanced Visibility with a User-Friendly Interface: The intuitive dashboard and analytics interface provided stakeholders with better insights into customer behavior, shelf zone activity, and store traffic patterns.
- ▶ 70% Cost Savings with Open-Source Implementation: By leveraging open-source tools, the project delivered substantial cost savings in both the short and long term, making video analytics an affordable yet powerful solution.





#### **About Indium**

Indium is an Al-driven digital engineering company that helps enterprises build, scale, and innovate with cutting-edge technology. We specialize in custom solutions, ensuring every engagement is tailored to business needs with a relentless customer-first approach. Our expertise spans Generative Al, Product Engineering, Intelligent Automation, Data & Al, Quality Engineering, and Gaming, delivering high-impact solutions that drive real business impact.

With 5,000+ associates globally, we partner with Fortune 500, Global 2000, and leading technology firms across Financial Services, Healthcare, Manufacturing, Retail, and Technology—driving impact in North America, India, the UK, Singapore, Australia, and Japan to keep businesses ahead in an Al-first world.

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