CASE STUDY: MAKING RETAIL AI WORK IN REAL STORES

Employee
Customer

lexdata

The Challenges

- In-store AI struggled to maintain accuracy as layouts, lighting, and customer behavior changed

- Alert systems produced false or missed detections, creating operational inefficiencies

- Manual validation was required for store traffic, register activity, and security monitoring

- Scaling AI across new locations was slow and costly without a consistent data foundation
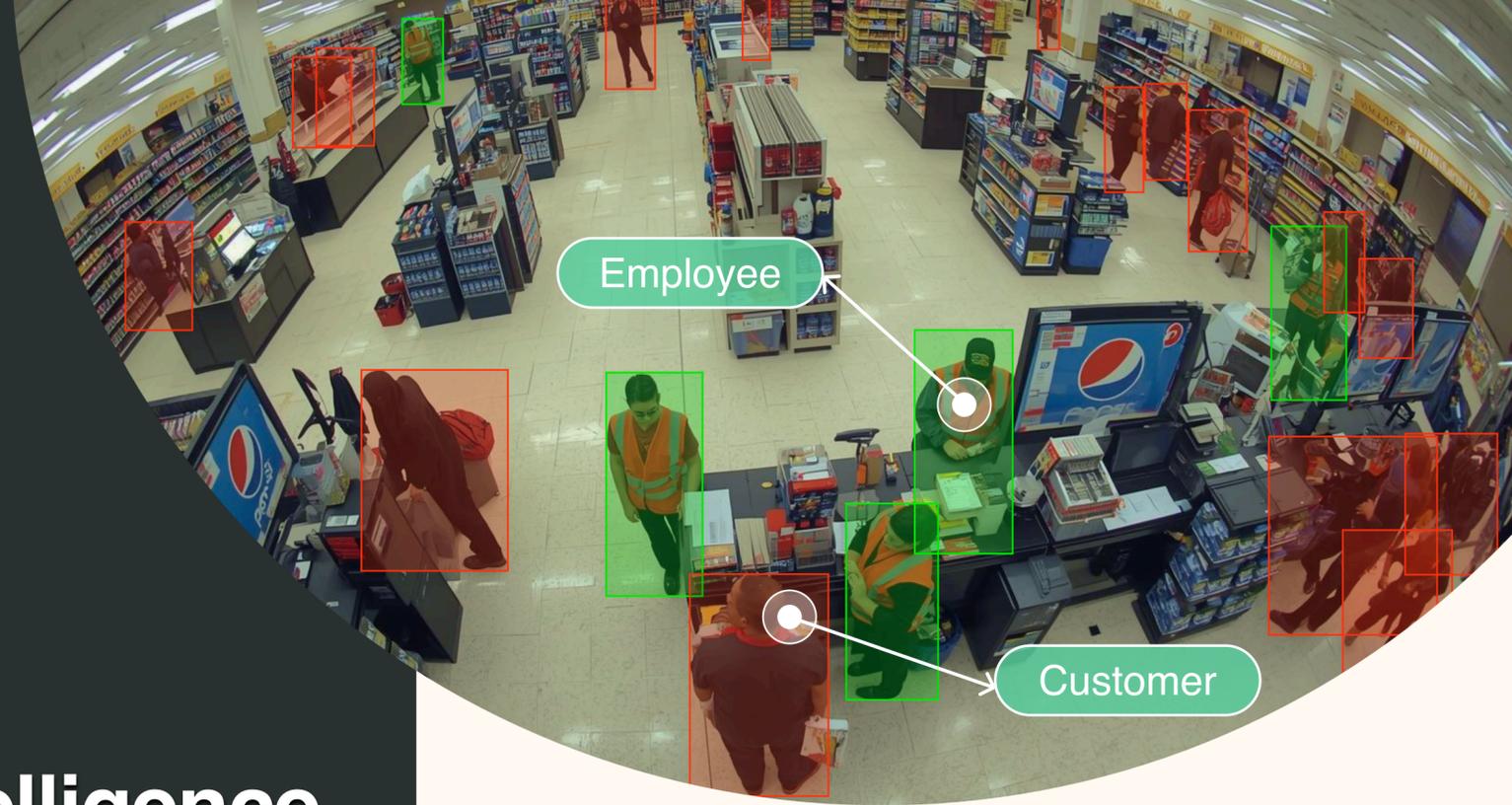
Our Solutions

- Structured & validated large-scale retail visual data to improve detection model performance

- Implemented human-in-the-loop workflows to verify real-time alerts and edge cases

- Supported integration with live dashboards and operational triggers for store intelligence

- Enabled continuous data operations so models stayed accurate as store conditions evolved

Operational intelligence for large-scale retail environments

Operational impact

- Improved reliability of customer, employee, and activity detection across multiple store locations

- Reduced false alerts and manual review, allowing faster operational decisions

- Accelerated deployment of retail AI systems for traffic monitoring and smart-store automation

- Helped retailers scale AI confidently while maintaining accuracy and efficiency

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☑ **Frame Annotation**
☑ **Alert Validation**
☑ **Traffic Counting**
☑ **Alert Validation**

Contact us: reach@lexdatalabs.com