DEEPNORTH
A I   f o r   t h e   P h y s i c a l   W o r l d

Overview

Digitizing the Physical World with AI

- **Mission**
  Understand Customer Engagement, Behavior, Actions, Gestures, and Demographics in the Physical World

- **Expertise**
  Computer Vision, Artificial Intelligence, Deep & Machine Learning

- **Markets**
  Shopping Malls, Retail Stores, Commercial Real Estate, Transportation

Market leading technology

Object Detection

Global leading human object detection platform delivering high accurate footfall analytics

Object Pathing and Dwelling

Human object tracking for detection of path flows metrics and dwell metric, within a video camera scene

Object Engagement

Human object gesture and engagement metrics in the physical world with skeleton model software

AI based on computer vision and machine learning

Vehicle Analytics

- Occupancy at Property Level with insights and predictions based on vehicle data.
- Understand Peak and Valley Vehicle Traffic
- Efficient Operations with Better resource allocations for peak traffic times.

Event Analytics

- Influence of Events on Property Level, Zone Level and Tenant Level
- Effectiveness of Event Types in attracting footfalls to the property

Maintenance Efficiency

- Deliver on time alerts for maintenance crews to respond to maintenance requirements

Pedestrian Analytics

- Create Better Operation Efficiency with Footfall patterns and deliver great Customer Experience
- Driving Business to Tenants across the property with effective Marketing and Event strategies

Parking Management

- Improved visitor experience with efficient parking management system.
- Automated enforcement tools parking management.

Security Alert

- Alerts based on Behavior and certain specified activity patterns

Creating Great Experience with Smart Intelligent Management

Deep North Helps Retailers Develop Winning Strategies for Retail with AI Driven Insights
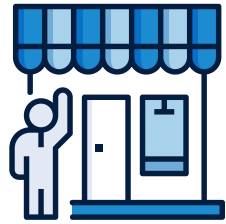
Win the Store Visit:

- Understand the full Customer Journey (Occupancy, Walking Path, Conversion to Purchase at POS)

- Optimize Queue Management at checkout and in dressing rooms

Build Customer Loyalty & Understanding:

- Customer Demographics (Age, Gender)

- Loyal vs Growth Customers (Repeat and Unique)

Drive Shelf and Category Engagement:

- Gesture Recognition

Leveraging Existing Video Infrastructure for Real Time Operational & Customer Insights

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Improve Staffing Efficiency:

- Employee Customer Interaction

- Employee Availability Alerts

- Traffic and Line Abandonment Alerts

- High Density Shopping Areas

A/B Test Store Concepts:

- Make data driven decision by measuring new store concepts and the real impact on foot traffic

Leveraging Existing Video Infrastructure for Real Time Operational & Customer Insights

Use case: Employee Driven Sales Conversion

Challenges

Home goods retailer had limited visibility into:

- Shopper behavior

- Correlation between number of in-store sales associates and shopper purchases

Solution

Retailer added video analytics to the existing camera system to:

- Identify key shopper behavior metrics

- Understand sales conversion in various store departments

Results

- Increased sales transactions 11% by adding more in-store sales associates to key departments

- More than $4K additional revenue per day per store

Use case: Leasing & Rent Optimization

Challenges

Mall owner lacked visibility into:

- Shopper journey within Mall

- Data to negotiate rent prices with tenant stores

Solution

Mall owner added video analytics to the existing camera system with ability to track:

- Shopper movement within the Mall

- Tenant store stickiness with shoppers

- Impact of promotional events on shopper traffic

Results

- DN drives an additional 3% in value of ROI-generating space within the mall, resulting in over half a million in profit

Use case: Optimize Marketing Events

Challenges

Major Sports Stadium District lacked visibility into:

- Effectiveness of marketing spending and promotional events (i.e. NFL Draft Party)

Solution

Customer added video analytics to the existing camera system resulting in ability to analyze:

- Effect of marketing on increasing footfall and spillage to surrounding tenants
- Vehicle entries and usage of on-premise garages and parking lots

Result

- Tracking the footfall performance of the event, helped customer identify top performing tenants; understand true capture rate of primary sports fan merchandising retailer (10%)