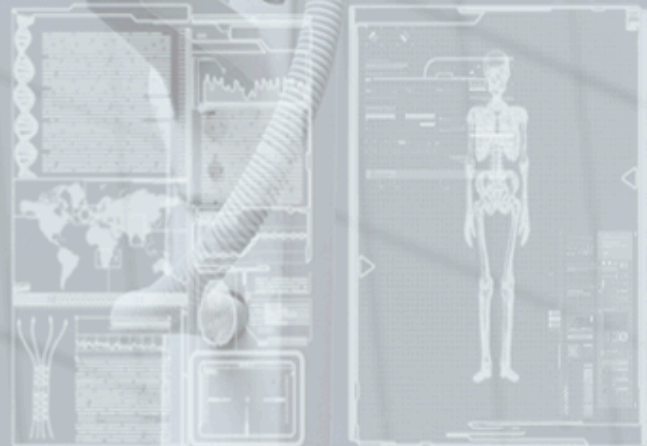# AI & Big Data
Video Analytics

Face: VIP Mary
Age: 25
Height: 175 cm
Gender: Female
Hair: Long

Glasses: No
Clothes: Red
Race: White

Baggage: Black

AI & Big Data Video Analytics

ABOUT US

Big Data Hush is the Global Leading Solution Provider to leverage Artificial Intelligence and Big Data for Video Analytics. We have served the fortune 500 and worldwide enterprise, especially in North America, Western Europe and Asia.

Our proven innovative technology outperforms traditional competitors and thus help your enterprises to create measurable business value.

We can leverage Big Data and AI to uncover and connect discrete and missing data into valuable information.

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AI & Big Data Video Analytics

Recognition
Tracking
Classification
Identification
Interpretation
Authentication

WHAT WE OFFER

- Superior Detection Capabilities

- Wide Range of Detection Functions

- Smart & Powerful Investigative Modes

BENEFITS

✓ AI & Big Data Ready
✓ Non Intrusiveness
✓ Real-Time Alerting
✓ Public Safety

✓ Improved Security
✓ Process Automation
✓ High Speed and Accuracy
✓ Business Intelligence

TRADITIONAL VS AI & BIG DATA CAPABILITY

	Traditional	AI & Big Data
Overall Accuracy	30%	99%
Facial Recognition Accuracy	70%	96%
Analytics Without Seeing Face	✕	✓
Feature Extraction: Colour, Age, Gender, Race, Height, Speed	✕	✓
Open Source & Standard	✕	✓
Cost (Of Large Scale)	High	Low

UNIQUE FEATURES

Guest
Female, 65
Hair: Short
Glasses:Yes
Smiling:No
Race: White
Height:175cm
Black, white, grey
Red

AI & Big Data Video Analytics

1. FACIAL RECOGNITION & FEATURES EXTRACTION

Our technology can extract the following features and boost with overall accuracy up to 99%:

Facial Recognition:	Registered Member/Guest
Gender:	Male/Female
Age:	10<; 11-20; 21-30; 41-50; 51-60; > 61
Height:	160 < ; 160-180 ; > 180
Hair Type:	Long/Short
Glasses:	Yes/No
Race:	White, Yellow, Black

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1.1.FACIAL RECOGNITION

- ✓ One-Step Projection Technology
- ✓ Better and Faster Performance
- ✓ No Backdoor Problem
- ✓ Based on Open-Source
- ✓ Big Data Technology
- ✓ Suitable For Large
- ✓ Scale Application

1.2.PERSONAL FEATURE EXTRACTION

Hair Type
- Short
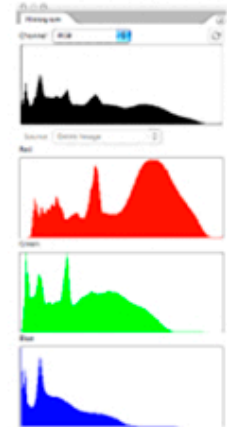- Long

Glasses
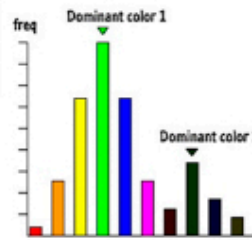- Yes
- No

1.3.OBJECT DETECTION

3

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1.4.CLOTHING & BAGGAGE COLOR RECOGNITION

Black, white, grey

Red

Main Clothing and Baggage Color is the most frequent color in histogram of colors.

1.5.HEIGHT ESTIMATION

175 cm

By comparing with reference models with known height, we can estimate passengers' height.

175 cm   175 cm

1.6.WALKING SPEED DETECTION

SPEED

Our technology can estimate
the walking speed of passengers:

SPEED	➡	No active movement
SPEED	➡	Medium Speed
SPEED	➡	High Speed (Running)

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2.CROWD & QUEUE MANAGEMENT

Automatic queue management system determines:

- ✓ Average Wait Time
- ✓ Total Wait Time
- ✓ Queue Length
- ✓ Idle Time

3.PEOPLE COUNTING

Users can arbitrary set virtual areas For intrusion detection and people counting.

4. AIRCRAFT & VEHICLE PARKING DETECTION

Users can arbitrary set virtual areas for intrusion and parking detection.

5.TAILGATING DETECTION

This strategy helps to detect somebody who try to tail a person and bypass the checking gate or line.

The tailgating alarm will be triggered when pre-defined virtual area contains more than one person.

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6.INTRUSION DETECTION

Users can arbitrary set virtual areas for intrusion
detection.

Malicious & Sabotage Detection:
Moving quickly, Knife & Gun detection
Policy Violation:
Reverse direction, Staff Restricted areas
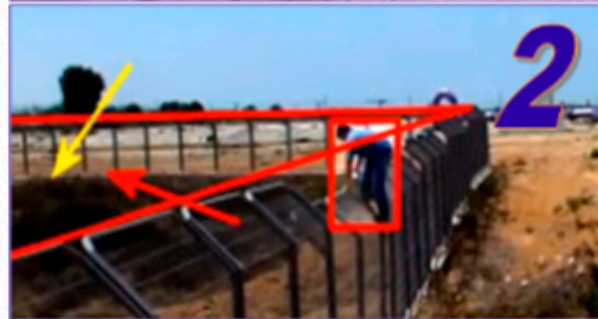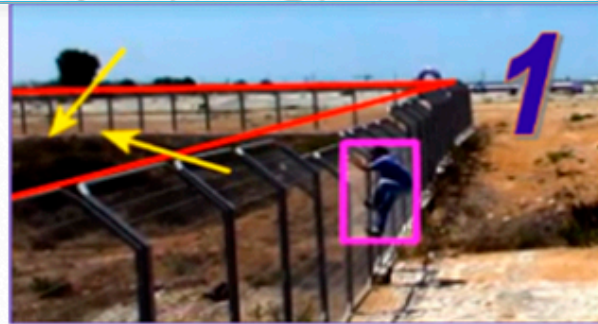**Monitoring:**
Open Spaces, Fences, Buildings and Entrances
Object Recognition:
Human, Dog, Cat, Car, Aeroplane
Facial Recognition:
Two-Factor Authentication for Restricted Areas

7.UNATTENDED OBJECTS DETECTION

Powering by Big Data Technology (e.g. Graph Databases) and
machine learning algorithms (e.g. Streaming Clustering),
discrete passengers and baggage are correlated and tracked.

E.g. Time, Location, Object, Color, People, Object owner track-
ing.
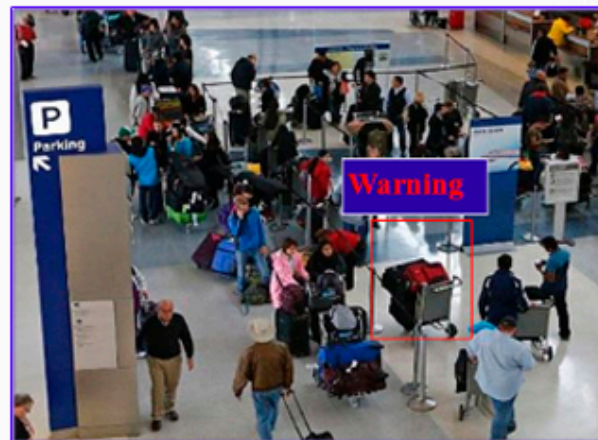
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8.VEHICLE PARKING DETECTION

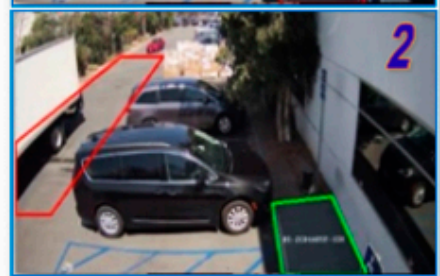Users can arbitrary set virtual areas for detection.

✓ Vehicle Restrictions Areas
✓ Monitoring of Parking Areas
✓ People Detection
✓ Abnormal Object Detection

Red - Spot is occupied
Yellow - Someone is parking
Green - Spot is free
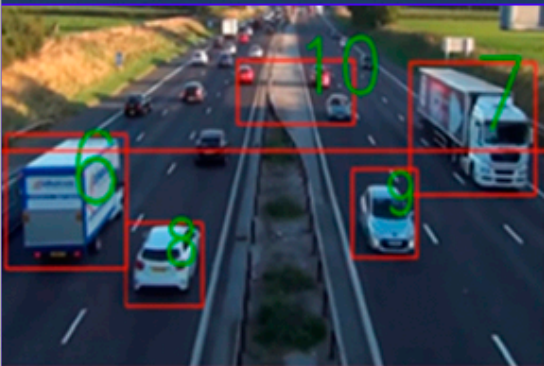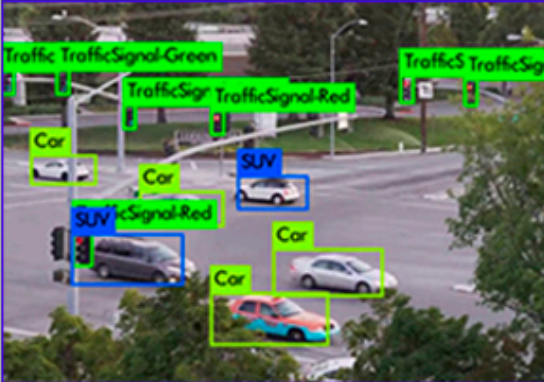

9.LICENSE PLATE RECOGNITION

It is a new AI technology to recognize car-plate number at higher accuracy under dark and smog condition

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10.VEHICLE COUNTING & CLASSIFICATION

This ideal security application is a guidance system which collects statistics about the traffic flow to determine the parking and road strategy for a spe-

11.VIDEO ANALYTICS BY DRONE

Our AI Drones can automatically track objects, carry out video analytics and send alerts to control center.

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12.ABNORMAL EVENT DETECTION

This system is used to detect unusual objects and suspicious behaviors in a scene.

Entrance Gate: Wrong Direction

Passing Without Payment

13.TAMPERING DETECTION

The system will send an alert to a control center when the camera is tampered .

It works when:

The camera is hit or moved
The power to the camera is cut
Obscured camera focus blocked view.