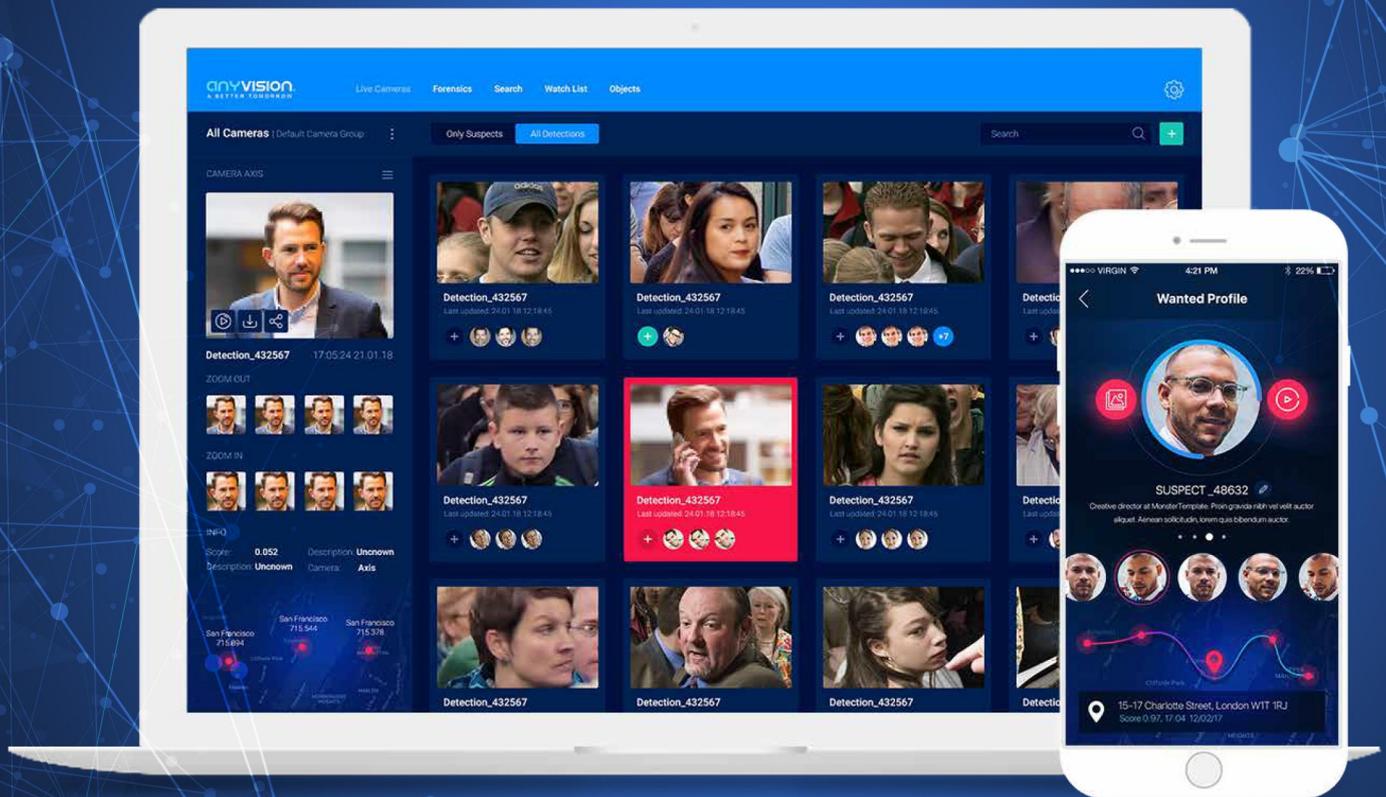


# Better Tomorrow

Creating a safer & better tomorrow

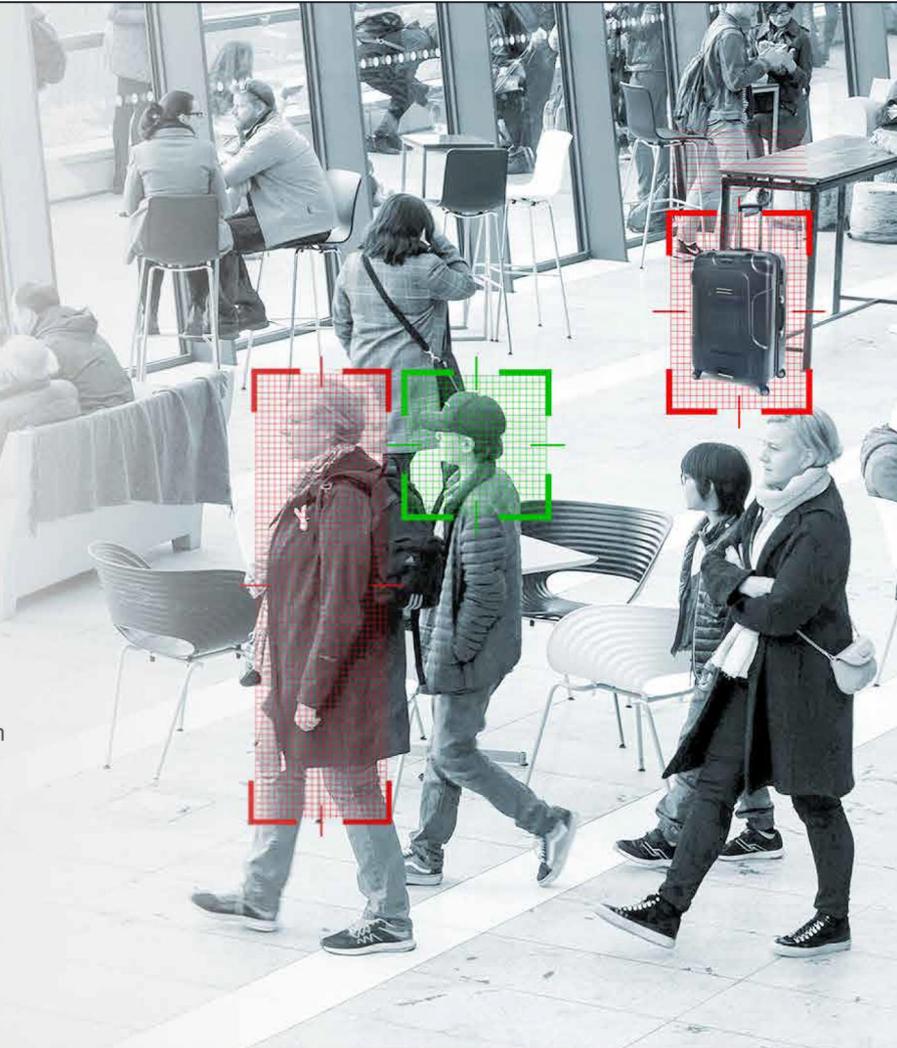


- Recognition in a crowd - done in real-time and requiring a minimum of 45x45 pixel face size
- 0.1% false alarms - the most accurate and deep neural network known to man, robust to pose variation, lighting, motion blur and night scenarios
- Any sensor, any location - a plug and play solution installed on existing infrastructure, including PTZ
- Detection speed and scale - 0.2 seconds per database of up to 115M individuals
- Multi-factor invariance - ethnicities, age, occluded faces and disguises

# BETTER TOMORROW

An advanced tactical surveillance system, powered by a cutting-edge, deep neural network that offers a wide range of capabilities, including face recognition, human body recognition and object identification.

The system is cloud-based/on-Premise, providing real-time and post-event analytics. It includes a set of advanced, automated tools that provide both immediate detection of events and video event analysis, turning each one into valuable data.



## AN INDICATIVE CASE STUDY

### Background

In 2017, AnyVision was invited to demonstrate its proprietary solution at one of the most secure airports in the world, with over 1 million people in transit each month.

### Objective

To conduct a benchmarked pilot challenging the most competitive facial recognition technology companies in the world.

| Results              |           |                    |
|----------------------|-----------|--------------------|
|                      | AnyVision | Closest competitor |
| True positives       | 99.9%     | 69.9%              |
| False alarms per day | <1        | 40-100             |

# STATE OF THE ART TECHNOLOGY

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The "A" team of AI designers & security veterans, with +20 years of experience in AI, deep learning and computer vision.

AnyVision is the world's leading developer of facial, body and object recognition platforms, along with anomaly detection and gaze estimation.

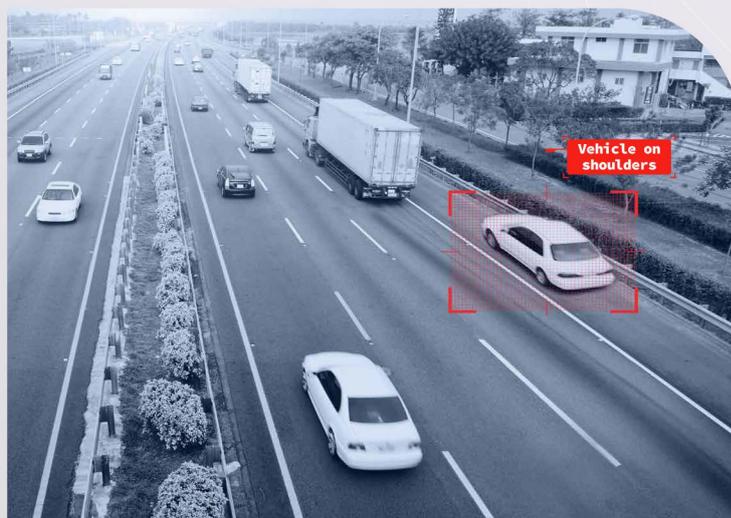
Our solutions are built to function on any sensor, in any resolution and are proven to operate in real-time and in real-world scenarios. Our mission is to reshape the future of AI and create a safer & better tomorrow.



# ANOMALY DETECTION

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A tactical surveillance solution, utilizing advanced deep-learning algorithms to quickly alert on irregular incidents such as crowd formation, vehicle stopping on shoulders, change of vehicle speed and more.



# PRIVACY REGULATIONS

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We ensure that the data processed is in the form of an irreversible mathematical expression. We have also developed unique features, designed to assist the data controllers to comply with GDPR's requirements.

- Privacy mode - captures and presents only faces of pre-defined individuals
- Face-blur mode - automatically obscures all non-involved faces in the field of view
- Complies with the GDPR

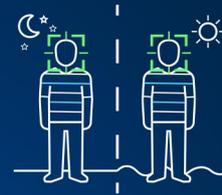


# MULTIPLE APPLICATIONS

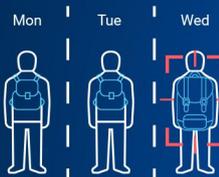
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Alert a POI  
( Person of Interest )



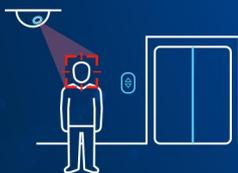
Find all repeated appearances  
of a POI



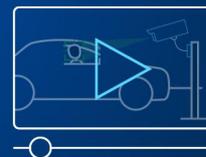
Recognize anomaly in  
real-time



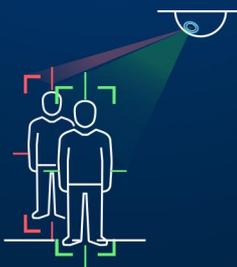
Alert unattended objects



Alert a person entering a  
restricted area/VIP



Pre and post event analysis



Track a person using  
body recognition

# RELEVANT FOR



HLS & Police



Transportation



Smart Cities



Sports & Entertainment



Airports



Facilities Protection



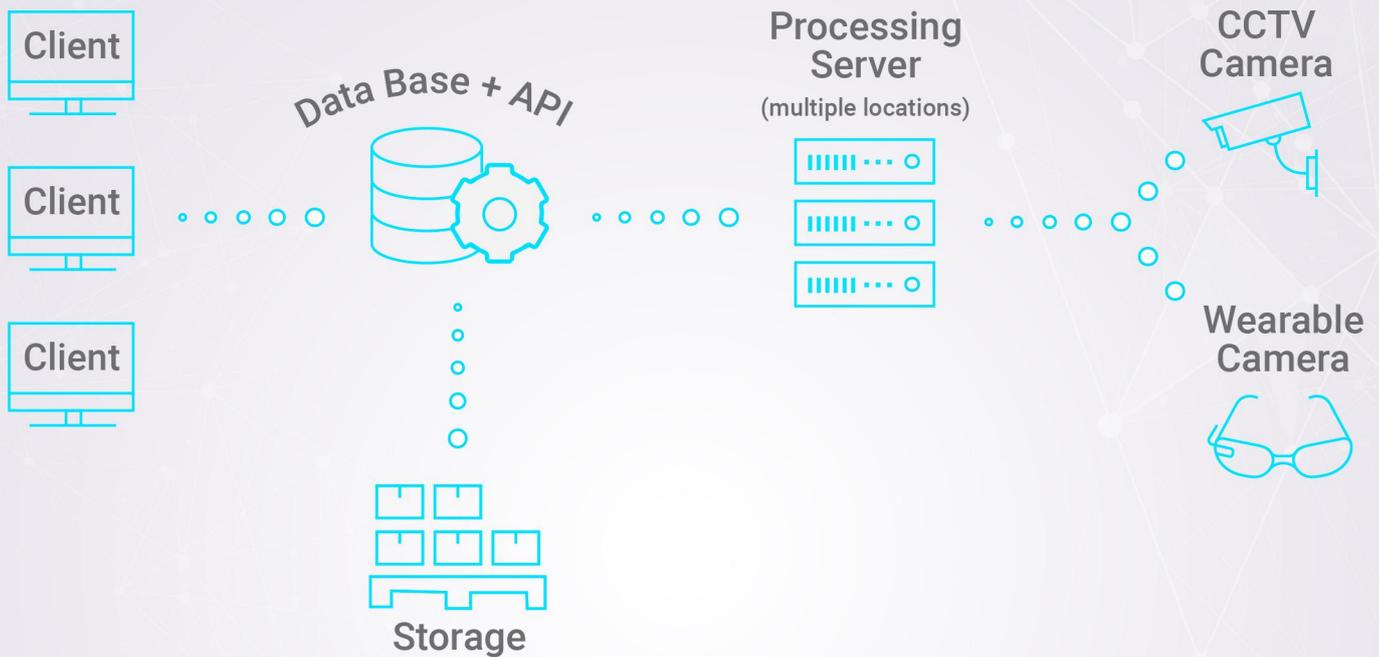
Retail

## Technology benchmarks | Face recognition

| Capability   | Current Status   | Performance & References  |
|--|------------------|---|
| <b>Facial recognition</b>  | state of the art | <b>NIST IJB-A 1:1:</b> ranked #1<br><b>NIST IJB-A 1:N:</b> ranked #1<br><b>LFW:</b> 99.65%  |
| <b>Facial recognition under different modalities RGB, near infra-red</b>                 | state of the art | <b>CASIA NIR-VIS 2.0:</b> 99.94%  |
| <b>Facial Analysis mood, age, eyes open, glasses, facial hair, etc.</b>                  | state of the art | <b>Multi-PIE Pose:</b> 68% @ +90, 98% @ +60, 100% @ +45<br><b>Multi-PIE Expression:</b> 100%<br><b>Multi-PIE Illumination:</b> 100% |
| <b>Person tracking - track an individual through video, even when no face is visible</b> | state of the art | <b>CUHK03 Rank 1:</b> 63.66%<br><b>Market-1501 Rank 1:</b> 76.51%   |
| <b>Celebrity recognition - recognition of celebrities</b>                                | state of the art | <b>YouTube Faces DB:</b> 96.94%   |
| <b>Liveness</b>  | state of the art | <b>Replay-Attack</b> - TPR 0.99 @ FPR 0.01<br><b>CASIA DB</b> - TPR 0.98 @ FPR 0.01<br><b>MSU MFSD</b> - TPR 0.99 @ FPR 0.01        |

# SYSTEM DIAGRAM

The objects caught in the camera's field of view are translated, in real-time, into mathematical models, which are then compared to clients' POI database. Recognition is done in no-time, just as the human brain functions, with its results presented in the Better Tomorrow dashboard.



## Server specs

| HARDWARE SPECS  | Laptop up to 4 streams | Mini BOX (1 GPU) up to 20 streams                   | Mini BOX (2 GPU) up to 40 streams                   | Production BOX (Enterprise GPUs) up to 100 streams |
|-----------------|------------------------|---|---|--|
| SERVER          | -                      | -   | -   | ASUS ESC4000 G3                                    |
| CPU             | -                      | Intel Xeon E5-1650 v4 (or better)                   | Intel Xeon E5-2660 v4 (or better)                   | 2x Intel Xeon E5-2680 v4                           |
| GPU             | GeForce GTX 1070       | 1x NVIDIA TitanX Pascal or NVIDIA GTX 1080 Ti       | 2x NVIDIA TitanX Pascal or NVIDIA GTX 1080 Ti       | 4x NVIDIA Tesla P40                                |
| RAM             | 16GB                   | 64GB (4x 16GB) DDR4 ECC                             | 64GB (4x 16GB) DDR4 ECC                             | 256GB (8x 32GB) DDR4 ECC RDIMM/LRDIMM              |
| SSD             | -                      | -   | -   | 2x 2.5" 2TB SSD (SATA 3)                           |
| DISKS           | 1*250GB SSD 1X1TB HDD  | 1x 2.5" 500GB SSD (SATA) + 1x 3.5" 6TB 7200RPM HDDs | 1x 2.5" 500GB SSD (SATA) + 1x 3.5" 6TB 7200RPM HDDs | Up to 6x 3.5" 8TB HDDs 7200RPM (SATA 3)            |
| RAID CONTROLLER | -                      | -   | -   | ASUS PIKE II 3108 8-port SAS HW RAID (Optional)    |
| CASE            | -                      | SILVERSTONE Sugo SG12 or SG11                       | SILVERSTONE Sugo SG12 or SG11                       | -  |
| BOARD           | -                      | ASRock EPC612D4U                                    | ASRock EPC612D4U                                    | -  |
| CPU COOLER      | -                      | Noctua CPU Cooler NH-U9DX I4 LGA2011 125mm          | Noctua CPU Cooler NH-U9DX I4 LGA2011 125mm          | -  |
| PSU             | -                      | SILVERSTONE 80+ SILVER 850W                         | SILVERSTONE 80+ SILVER 850W                         | -  |

BETTER VISION. BETTER PRECISION. BETTER TOMORROW

**anyVISION.**  
A BETTER TOMORROW

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