GORILA

Whitepaper

Gorilla: Accelerating Intelligent Video Analytics for Law Enforcement

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Abstract

Gorilla provides a platform that utilises the latest super computers, combined with deep-learning, to provide radically faster video analytics, focusing on Body identification/searching, across any format, taken from any device (Unknown formats are de-coded and added into our existing, substantial formats library, thereby no longer being unknown)

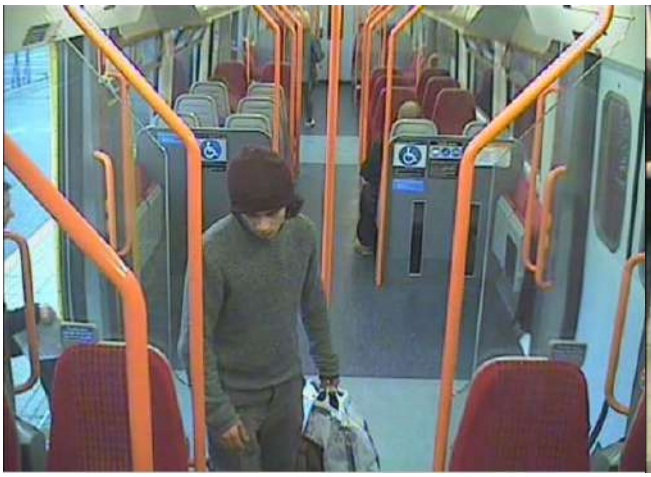
Gorilla's 'Dynamic mapping' displays device locations, hyper-linked to their associated footage, allowing the operator quick access, replay and tracking of person's movement.

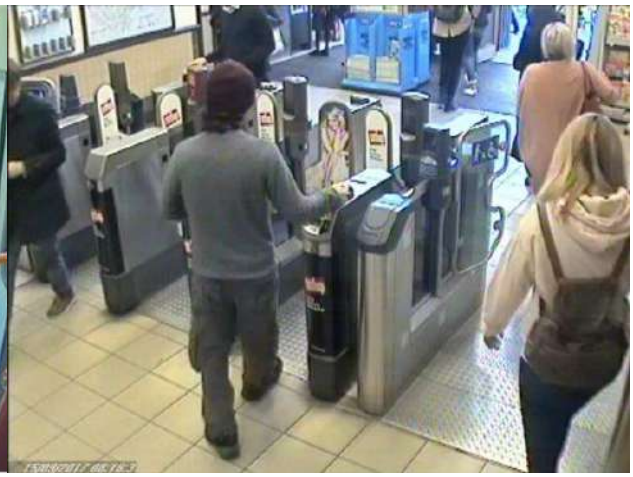
Once ingested, investigators use Gorilla's suite of analytical modules to quickly focus on their key areas of interest within the entire footage e.g. Advanced Motion Detection, Body Detection/Recognition/Re-ID, Face Detection/Recognition/Re-ID.

Output user created materials including siting report and footage, water-stamped back to original.

Just as important, but hidden from general view, are Gorilla's underpinnings of 'Privacy by Design' strong security protocols, case management and detailed user audit tracking.

Gorilla has successful ingested footage from 'Operation Bessoting'. (At the time of this whitepaper submission, 13 out of 15 folders have been successfully ingested, with multiple sitings of the suspect)





Working out from the incident, using Gorilla body identification etc. Gorilla quickly & successfully found the suspect, then identified the number of times & places they were present across the entire ingested footage, thereby tracking their movements

Problem Statement

Explain the issue/pain point you have identified and let us know why you have chosen to work on your offer or solution.

It was identified that law enforcement and security organisations were ‘wrestling’ with the issue of analysing vasts amount of video data, collected from an ever-growing plethora of devices, with incomplete or inaccurate timings, delivered in numerous formats; both old and new, of varying quality, in order to find persons-of-interest, track their movements and identify meaningful & relevant information, without tying-up numerous investigators for an inordinate amount of time.

Analytical tools did not exist that could then interrogate the centrally held footage

Also See:

https://vimeo.com/288155245

http://www.couriermail.com.au/news/queensland/crime-and-justice/british-video-technology-put-killer-in-the-frame/news-story/6ae2ab8acea2906a35819724976eb145

The Solution

Describe the unique aspect of your solution that will solve the issue, what differentiates it, why it was the best option over alternative solutions that were considered.

1	The alternative for video analysis was, at the time, a manual process, requiring investigators to watch the entire captured video, in real-time.
2	<x100 improvement versus traditional methods, typically x5 / x10.
3	Central repository for all video-based data, accessible by multiple analysts, streamlining collaboration across various shifts.
4	Use of Deep-Learning & the latest supercomputers.

5	Format Conversion Service allows users to ingest unusual footage formats and review what may have been previously missed.
6	The Modular Analytical Suite allows investigators to select the right 'tool' for each type of analysis.
7	Advanced Motion Detection (any output) eradicates the requirement to watch meaningless footage, saving vasts amount of time – i.e. the user can 'jump' to the relevant content in the video files.
8	Rapid Body identification and Re-ID searching across multiple sources.
9	Discover more incidents / evidence.
10	Face detection/re-id.

How It Works

Describe the user flow for your solution, the journey they go through and how you can reach the desired outcome when assessing the initial dataset.

- Footage Ingestion (Identification, de-coding and inclusion of unknown formats)
- Processing analytics
- Utilise analytic toolset
- Ability to manually watch all the videos, gathered on a single platform
- Capture relevant video, still etc. and save into case management
- Create output material to report

Key Features

What sets your solution apart?
What makes it stand out against any competition? What are the USP's?

1	A British solution from a British Company (UK developed & supported).
2	Intuitive, easy-to-use GUI with the end-user in mind, so easy-to-learn product navigation.
3	Body Identification & Body Re-ID finds PoI within and across multiple video footage. 'Face Recognition' is a personal attribute used when available, relevant and of suitable quality.
4	An extensive format library is included, supported by our Format Conversion Service (FCS) that de-codes unknown formats and adds them into that library.
5	Face Identification/Detection is available via an exposed API, thereby, allowing facial images to be used for the likes of 'watchlist' look-up (Including the opportunity to use with the HOBS image database).
6	Analytical Modules allows Investigators to have the right 'tool' for their video interrogation.
7	Available as an 'on-premises' and SaaS solution.
8	Robust, mature and proven product.
9	Point-to-point VPN Security.
10	'Privacy by Design'.

11	Detailed User Audit tracking.
12	Output user created materials.

User Interface

How easy is the system to use? How much training would be required?
How easy is it to deploy and are there are restrictions or constraints?
How well will it interoperate with existing systems?
How extensible is it? What maintenance is required and how easy is it?

The Gorilla solution is reported as being ‘intuitive’, with an “easy-to-use GUI, designed with the end-user in mind, delivering easy-to-use navigation”

Typically, training takes between 2-4 hours for a user to become competent and self-reliant

The system is a self-contained application, making it easy and quick to setup and commission. This can either be as an ‘on-premises’ deployment, which requires point-to-point VPN security or as ‘SaaS’, which requires good broadband connectivity (minimum recommendation: 20 Mbps download / 5 Mbps upload)

Differentiation

What differentiates your solution? Is it cutting edge, innovative? How does it measure against current systems in use?

Gorilla is a robust, proven and mature application at the leading edge of video analytics, combining the latest Deep Learning, Neuro-networks and Super Computers, to provide capabilities that pioneer and innovate in the area of in-depth Video Analytics

Typically, Gorilla has been known to deliver an improvement of up to 100 times over traditional methodology, with typical improvements of between x5 and x10

Other USPs and differentiators are defined above

In 2017, Gorilla/Seequestor won the 'Frost & Sullivan' Award based upon their independent evaluation. Their report defines Gorilla as:

"By focusing on 'Privacy by Design' and wrapping video analysis capabilities in a rigid, tamperproof case management system, the company has enabled law enforcement authorities to use videos as admissible evidence without compromising privacy or transparency"

"Consistently presents best-in-industry applications to set itself apart as a technology innovator and partner in the digital law enforcement industry"

Gorilla Technology

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