Applying Artificial Intelligence to identify potential threats as early as possible to save lives and protect resources.
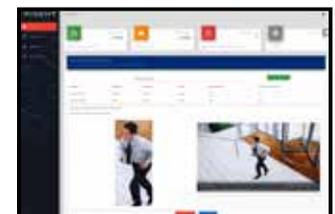
OVERVIEW

Today's world is consumed with digital images. By leveraging deep learning and long-short-term memory networks to analyze sensor data to automatically assess images, the digital world is able to interact with the physical world using computer vision. Applied to everything from factories to semi-autonomous cars and drones, computer vision allows things to run more efficiently and even more safely. Exigent's proprietary AI computer vision technology extends the benefits of AI to safety and security applications, with the ability to autonomously detect targets of interest to protect lives and property.

TECHNICAL

Exigent® assesses and extracts high-dimensional data from digital images, thereby emulating tasks of the human visual system to transform visual images (the input of the retina) into information and data to aid in making decisions. Once trained on a target of interest, Exigent provides the user the ability to automatically identify targets in the real world.

Computer Vision is about pattern recognition. To train a computer how to understand visual data you feed it images, lots of images – thousands, millions if possible – that have been labeled. Then, you subject those images to algorithms that allow the computer to look for patterns in all the elements that relate to those labels. *(continued on reverse)*

From guns and drones to virtually any object, Exigent can be trained for automatic detection, identification and alerts.

EXIGENT ENABLES THE USER TO:

1. DETECT
Autonomously detect targets of interest against any background, day or night.

2. IDENTIFY
Instantly analyze imagery using AI algorithms to identify the target of interest.

3. ALERT
Automatically notify the user via text message or email showing location of target.

TECHNICAL (CONTINUED)

When it's finished, the computer will be able to use its experience if fed other unlabeled images to find the ones that are of interest to the user. Once the target of interest is identified, Exigent® can send commands to a camera to track the target and continue to provide updates to the user.

Exigent Artificial Intelligence Computer Vision Solution is built around a deep convolutional neural network architecture that exploits spatially-local correlation of features by enforcing a connectivity pattern in the synapses between neurons of adjacent layers.

The network is trained using Exigent's state-of-the-art training algorithms and regularization techniques. The training techniques include Stochastic Gradient Descent, Variable Mini-batch Size, Variable Learning Rate, Dropout and Batch Normalization.

SECURITY / OPERATION

Exigent security features include role-based login, application authentication and message encryption. Further, Exigent operates inside a docker container isolating the API from the rest of the system as an extra layer of security, while ensuring the software does not conflict with other required system dependencies.

Training is provided on how to operate Exigent, and how to understand the output, with onsite training available. A training manual is provided with each Exigent license. Call center support is provided through Exigent.

LOGISTICS & LICENSING

Exigent can be activated on up to four different computers assigned to a single named user per license. A named user may not use a program on more than two computers simultaneously.

Licensing is available with two options – Perpetual and Annual. The license is restricted to a single country of operation. Global individual licenses are available to serve users around the world. Software Maintenance Service is included with terms based on the type of license (Perpetual or Annual), and includes the latest updates to Exigent with twice-yearly updates plus worldwide technical support from specialized engineers.

REQUIREMENTS

Access to internet and 110V power

PRODUCT DETAILS

Product Name	Exigent®
Version	2019
Manufacturer Part Number	A2019E
Product Type	Single License
Platform	Linux

At Exigent, we believe in empowering businesses with intelligent solutions that drive efficiency, productivity, and innovation. Our comprehensive AI products offer a suite of capabilities including AI personal assistants, big data analytics and computer vision solutions.

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