Real-Time Threat Detection Using IBM PowerAI Vision

ZeroEyes is an intelligent video analytics company that uses technology, powered by Artificial Intelligence, to detect weapons and recognize faces in real-time.

The Customer

ZeroEyes® consists of a team of US military veterans and technologists who are passionate about solving the active shooter threat in America. As former Navy SEALs and combat veterans, the team at ZeroEyes have lived through countless active shooter situations. The company uses Artificial Intelligence to actively monitor camera feeds to detect weapons and people who could be potential threats. Once detected, our system instantly sends alerts that provide the ability to lockdown the building.

ZeroEyes’ technology provides critical information (number of shooters, description, type of weapon, and location) to improve the situational awareness of first responders, enabling them to quickly address threats. Additionally, it can decrease response time and save lives.

To learn more about ZeroEyes, visit their website at www.zeroeyes.com.

The Challenge

Tim Sulzer, chief technology officer for ZeroEyes states, “School shootings have become an epidemic in the United States, and children deserve a safe place to learn. Our AI is capable of processing video feeds in real time to identify high-risk individuals and weapons. Once a risk is identified, our platform instantly triggers alerts sent directly to authorities showing a video replay of the alert as well as the specific location of the alert. This information is critical to allowing first responders to control the situation immediately and possibly save lives.”

ZeroEyes had a difficult time locating a source for the specific hardware configuration needed to train their deep learning models as well as one that provided assistance in properly sizing and configuring systems based on its differing customer needs. Other cloud providers simply provide compute for the masses with very little ability to customize configurations. Mr Sulzer continues, “We looked into various cloud and hardware providers, but were not able to identify a provider which offers the same flexibility and specialty hardware we required. Cirrascale has been a valuable partner providing the expertise and hosting we need to install our systems and improve security for our customers.”

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The Solution
Cirrascale Cloud Services® worked closely with ZeroEyes in creating a dedicated, multi-GPU solution that fulfilled all of the requirements set forth by the customer. “Cirrascale came highly recommended and lived up to it. During the initial conversation, it was clear to me from the questions they asked and advice they gave that they were thoroughly knowledgeable of our use case.” Ultimately, ZeroEyes selected Cirrascale’s cloud platform utilizing IBM Power9 systems running IBM PowerAI Vision. PowerAI Vision makes computer vision with deep learning more accessible to business users. The software includes an intuitive toolset that empowers subject matter experts to label, train, and deploy deep learning vision models, without coding or deep learning expertise. It includes the most popular deep learning frameworks and their dependencies, and it is built for easy and rapid deployment and increased team productivity. By combining PowerAI Vision software with accelerated IBM Power Systems, enterprises can rapidly deploy a fully optimized and supported platform with blazing performance.

“We use Cirrascale’s services to train all of our deep learning artificial intelligence models, and their systems allow us to execute the programs we need with high efficiency,” states Mr. Sulzer. “We can rapidly train, test and deploy models to identify new objects in different environments.” Additionally, ZeroEyes utilizes Cirrascale’s in-house engineering team to ensure proper setup and execution of IBM PowerAI Vision for their application. Even as software or configuration issues may arise, ZeroEyes has had a positive experience, “Cirrascale is extremely responsive and attentive to our requests. I’m continuously impressed with the fast and intelligent replies to our support requests. They are quick to respond, even during off hours, and go out of their way to make sure we have what we need.”

Discover the Difference
Cirrascale Cloud Services® worked closely with ZeroEyes, as it does all of its customers, to truly deliver a white gloved experience. The company’s ability to provide tailored, dedicated, multi-GPU cloud services has set it apart from other cloud providers. With flat-rate billing, no ingress/egress fees on data, and superior support practices, Cirrascale invites you to discover the difference.

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Tim Sulzer
CTO, ZeroEyes