BrightCloud® Threat Intelligence

The Scale of BrightCloud® Machine Learning

BrightCloud Threat Intelligence can catch the most elusive, never-before-seen threats.

How? It's simple.

The scale, speed and volume of BrightCloud's machine learning is unmatched, enabling our technology partners to integrate real-time, highly accurate, predictive intelligence to stay ahead of internet threats.

You want to talk about scale?

Let's talk about scale.

10 MILLION — BrightCloud has the potential to capture up to 10 million input characteristics for each internet object that we classify

40 MILLION — We then train the machine by assigning up to 40 million weights to our models

MILLIONS — BrightCloud classifies millions of internet objects every day to determine if they are benign or malicious

1000 — BrightCloud trains and publishes 1,000 models a day

BrightCloud's cloud-based platform has the potential to capture millions of characteristics for each object being classified. These characteristics create a "feature space" for internet objects. The location of an object in this"feature space" defines the object.

This massive feature space is what enables BrightCloud to effectively categorize brand new, zero-day internet objects.

Neural Nets

Neural Nets BrightCloud applies extremely large and complex neural nets on the order of **40 million nodes**, for its machine learning models.

They are used to digest and analyze the massive number of characteristics we capture for each object.

Processing Power

At present, the training of a BrightCloud model utilizes approximately 10 million data points to determine 40 to 50 million model parameters.

To accomplish this, we leverage Amazon Web Services and the San Diego Supercomputer Center at the University of California, San Diego, typically leveraging up to one terabyte of RAM and 40-50 nodes.

Real World Results

293M
New unique files witnessed by BrightCloud in 2016 alone.

736k
Average of new files classified as malicious by BrightCloud per month in 2016.

86%
of malicious files first seen in 2016 were only seen on one PC in BrightCloud's user base, demonstrating the continuing growth of polymorphic malware.

Read more about how BrightCloud is identifying zero-day threats using sixth-generation machine learning in our complimentary white paper, ***Automating Threat Detection with Advanced Machine Learning at Scale: The BrightCloud Approach***

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