

THE THREE WAVES OF ARTIFICIAL INTELLIGENCE

As defined by the Defense Advanced Research Projects Agency (DARPA) of the United States Department of Defense. DARPA is the research and development agency responsible for the development of emerging technologies for use by the military, including AI. www.darpa.mil/about-us/darpa-perspective-on-ai

1ST WAVE AI

DEFINITION

Enables "reasoning over narrowly defined problems," but with a poor level of certainty.



2ND WAVE AI

DEFINITION

Enables "creating statistical models and training them on big data," albeit with minimal reasoning.



3RD WAVE AI

DEFINITION

Enables machines to adapt to changing situations.



THE 3 WAVES APPLIED TO CYBERSECURITY

AI-driven solutions are becoming increasingly important in detecting sophisticated threats. But not all AI based cybersecurity solutions are the same. Most solutions are utilizing First and Second Wave artificial intelligence, relying on rules-based approaches that can only detect attacks with known signatures and cannot effectively scale.

1ST WAVE AI QUALIFICATIONS

Expert knowledge or criteria and logical reasoning encoded into a program.

EXAMPLES

exabeam LogRhythm
securonix corelight
sumo logic

2ND WAVE AI QUALIFICATIONS

Machine or statistical learning including voice recognition, NLP, and computer-vision technologies, among others.

EXAMPLES

VECTRA DARKTRACE
ExtraHop

3RD WAVE AI QUALIFICATIONS

Combines the strengths of first and second wave AI and is also capable of contextual sophistication, abstraction and explanation.

EXAMPLES

MixMode®

MixMode has developed the world's first commercially available intuitive threat detection and response platform built on Third Wave AI. MixMode's patented self-learning AI platform was born out of dynamical systems and identifies patterns and trends without predefined rules or training. **Learn more: mixmode.ai/ai/**