

USE ARTIFICIAL INTELLIGENCE TO TURN DATA INTO INSIGHTS AND DRIVE EVIDENCE-BASED DECISIONS

Artificial Intelligence (AI) and Analytic Services

From force protection to fraud detection to equality in public health, analytics enables opportunities to improve support for U.S. service members, protect vital assets, enhance citizen services, and improve the speed of operations.

The need to extract answers from a wealth of data demands new approaches. Peraton demystifies the complexity to deliver analytics insights by applying artificial intelligence and machine learning (AI/ML) capabilities to address real-world problems.

OUR APPROACH

Peraton is an applied AI/ML provider driving results for customers across a range of domains and technologies including fraud, cyber, adversarial machine learning, behavioral analytics, and more. Peraton's analytic solutions encompass ML, generative AI (GenAI) augmented analytics, and autonomy—all operating at scale and in real-time to optimize information processing and improve the effectiveness of mission execution.

Our approach integrates the principles of transparent, explainable, and ethical AI as a philosophy to support mission improvement. We bring together best-of-breed solutions to match mission, budget, time frame, and scale while also considering current investments and alignment to goals and objectives.

BENEFITS

- Uncover hidden insights in vast amounts of unstructured and structured data including geospatial, images, text, and voice
- Drive the right AI/ML solution by partnering with experts who are immersed in this dynamic technology domain
- Use GenAI to augment human intelligence and create efficiencies by exploiting the latest in advanced analytics
- Leverage autonomous systems for battle management, emergency management, and humanitarian efforts
- Implement transparent, explainable, and ethical AI solutions

We operationalize AI/ML and analytics solutions, deploying and managing them to ensure performance and compliance.

Across Peraton we leverage the expertise of 1000+ data scientists, architects, and engineers to drive innovative solutions. We know how to integrate AI into broader ecosystems to maximize mission value. We partner with organizations to keep ahead of the technology curve and drive mission effectiveness with data-focused solutions.

OUR SOLUTION

We apply leading-edge technology in ML, natural language processing, GenAI, and autonomy to provide enhanced insights for real-time intelligence and improved mission outcomes. With our expertise, we develop and deliver domain-based algorithms and analytic solutions at scale, analyzing data in real time to enable the mission.

Additionally, we augment your enterprise with the right analytics and data platform solutions to meet objectives now and into the future. A modern data architecture framework and vendor-agnostic approach provides a solution tailored to the baseline while our relationships with leading analytics partners ensure the right technology is implemented to power an intelligent data organization.

From supporting research agencies like DARPA and IARPA in detecting synthetically modified organisms to identifying insider threats, Peraton delivers AI/ML solutions to turn data into insights that drive evidence-based decisions.

AI Development and Engineering

Peraton develops, tests, and delivers AI/ML models leveraging all types of data to continuously improve outcomes such as threat intelligence, disinformation detection, smart grid protection, and autonomous agent collaboration. We follow an industry standard analytics process and utilize robust MLOps procedures for deployment and sustainment. Transparency, explainability, and ethics are embedded in our AI/ML approach.

Our capabilities include leveraging Large Language Models to generate intelligence reports, proposals, or search large troves of technical documents via question and answer. Our approach implements industry-leading algorithms within a flexible, scalable framework that enables agile development and deployment of tailored solutions.

Peraton incorporates groundbreaking applied research, including analytics from Peraton Labs. Researchers at Peraton Labs create and implement innovative AI/ML technologies to address critical challenges in big data analytics, wireless networking, electronic warfare, and cybersecurity. The key to our efforts is world-class research in developing advanced ML capabilities and applying them to problems from network cyber defense and automated target recognition to spectrum analysis, vision, and modeling and simulation. As one example, our breakthrough ML paradigm, Learning Using Privileged Information, mimics the process of human learning to greatly enhance the accuracy and speed of ML for data analytics, including prediction and anomaly detection.

Analytic Solutions

We apply our industry expertise via domain-based algorithms and embedded analytics to impact the mission to continuously improve outcomes. We have deep expertise in identifying, detecting, and preventing fraud. Since 1999, we have prevented over \$11B in fraud, waste, and abuse for the Centers for Medicare and Medicaid Services. Peraton also created ML models to deter fraud in the trading and commodities domain at the Commodity Futures Trading Commission and the SEC. We have implemented fraud analytics prevention systems with more than 200 models that handle 10 million claims daily.

Peraton is a leader in cyber analytics with solutions that support advanced cyber threat detection and defense. We perform enterprise scale cyber analytics for the Army, Air Force, NATO, Department of Homeland Security, and multiple other federal and state agencies.

Our cyber analytics solutions include:

- SecureSmart™: a suite of tools for defending critical infrastructure
- ThreatBoard®: provides autonomous capability to ingest all cyber threat data from diverse sources to perform data aggregation, tagging, validation, enrichment, correlation, sharing, and analysis. It significantly accelerates the speed at which analysts can identify campaigns, detect advanced persistent threats, analyze incidents, deter attacks, and share threat intelligence

Autonomy

Peraton capabilities include the Joint Operating System, a mission autonomy framework for command and control of human-machine battle networks. An agent communication language effectively enables collaboration across service and multi-domain situations. Our standard agent communication language provides system command, control, and collaboration to deliver information and decision advantage. We also apply ML for automatic course of action generation to speed the observe, orient, decide, act loop in critical situations.

