We use advanced engineering to overcome the challenges others face when implementing Ai.

ARTIFICIAL INTELLIGENCE
Engineering Intelligent Systems for Concrete, Practical Value

Artificial intelligence (Ai) is exciting, no doubt. While the concept has been around for generations, recent developments in human-machine teaming have made Ai a strategic priority in every corner of the world, including the Department of Defense (DoD). Ai technology presents unprecedented potential for the future of U.S. defense and national security.

ENGINEERING, NOT MAGIC

Unfortunately, much of the industry still frames Ai in fundamentally magical terms, so the question of how to deliver on the promise of this new technology remains less clear for many leaders and organizations. While the science is thrilling, infusing systems with complex machine intelligence requires more than the connection of a data set to an academic algorithm.

To unlock the power of Ai, U.S. government leaders must understand its real potential, the challenges they may face when implementing it, and how engineering can be applied in concrete, practical ways to overcome those challenges.

BIG IDEAS, REAL AI SOLUTIONS

At Huntington Ingalls Industries (HII), we apply Ai to create solutions that revolutionize America's national security systems.

By pairing data insights and systems expertise with machine and deep learning capabilities, our practical Ai solutions enable secure and decisive operations for outcomes that matter to your mission.
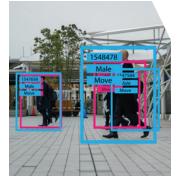
We are experts in sensors, weapons, platforms, processing, and C5ISR, with the ability to exploit massive DoD and Intelligence Community (IC) data sets. As curators of commercial Ai technology, we select the right option for your needs from a wide set of proven tools and employ our agile engineering practices to support fast, low-risk iteration and implementation.

With 40% veterans and a multitude of forward-deployed engineers, we bring deep operational experience to help you design, discover, and deploy real Ai solutions. Together, we are advancing the nation's defense by improving human-machine teaming across the full spectrum of military action.

HII'S ARTIFICIAL INTELLIGENCE SOLUTIONS

With active programs across the DoD and federal government to create smarter sensors and C5ISR systems, we are experienced in the secure application of Ai throughout the national security ecosystem— as well as in every corner of our own business. We've been trusted, tireless partners to the national security community for more than 80 years, with a track record of quality and the credentials to prove it.
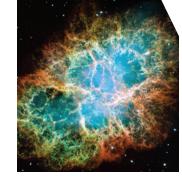

MACHINE LEARNING

Machine learning is marked by Ai that optimizes its use of data features with experience. Our engineers and data scientists develop, test, and integrate proven machine learning algorithms to augment and accelerate the nation's mission-critical systems and platforms.

DEEP LEARNING

Deep learning can extend machine learning by generating sophisticated features to use for optimization. We train deep neural networks to model your complex systems, make predictions, and augment decisions— all with exceptional speed, security, and accuracy.

AUTONOMY

We prototype, test, and deploy next-generation autonomous systems. By combining tailored interfaces with reinforcement learning, we accelerate course of action (CoA) development for persistent systems that operate intelligently while compensating for changes in conditions.

HUMAN-AI TEAMING

No strangers to technological revolutions, we understand the concerns surrounding use of autonomous Ai in combat. We are building the foundations for seamless human-Ai teams as a standard in future operations, with systems that have humans in, on, or observing the loop.

SPOTLIGHT ON: ISR SENSING & CONTROL

The fusion of radar, communications, electronic warfare, and cyber effects in a low-cost, low-profile package is a force multiplier in the field. But modern sensors capture data in such high volumes that even the most advanced traditional processing techniques are overwhelmed.

We augment intelligence, surveillance, and reconnaissance (ISR) sensing and control systems with machine and deep learning to help you collect and synthesize data faster and more accurately, so you can make more informed command and control decisions.

These solutions combine low size, weight, and power (SWaP) architectures with multi-modal sensing capability to reduce operator kit and produce mission success. They can operate as standalone systems, connect for multi-modal operation, or integrate into an existing common operating picture.

We combine secure cloud architectures with smart edge devices to handle even the largest of Ai projects. From airborne sensors to human-portable radars, our broad footprint and enterprise reach-back support secure, integrated ISR to aid military interoperability.

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Huntington Ingalls Industries

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