



Artificial Intelligence and Machine Learning

The explosion of new data affects important domains, from healthcare to national security. Across these domains, we're helping our customers adopt artificial intelligence (AI) and machine learning (ML) solutions that turn this data into new opportunities for insight and efficiency. Our deep understanding of our customers, their data, and their missions allows Leidos to deliver AI and ML solutions that provide real value immediately.

OUR APPROACH

AI is improving many ways in which our industries operate, but this also presents new concerns about reliability, resilience, and security. AI and ML systems present new attack surfaces, and a broad set of potential vulnerabilities in these systems has already been discovered. Through R&D programs, Leidos is developing ways to apply strong cybersecurity paradigms to these vulnerabilities. In addition to developing strong security guarantees, we are creating ways to reduce mission-impacting biases, verify that systems are trained adequately for deployment, and ensure they cannot be fooled by bad data. AI and ML can and will be used to do great things, but they must be done smartly and carefully.

OUR CAPABILITIES

AI has been portrayed as a magic wand that will solve everything. In reality, the power of AI and ML technology comes from smart solutions to specific, data-intensive problems. Deployed correctly, AI and ML can be incredibly effective tools to address those problems, but effective applications require looking beyond the hype and focusing on thoughtful and realistic problem-solving.

Our AI-ML capabilities include:

- ▶ Deep learning
- ▶ Convolutional neural networks
- ▶ Faster region convolutional neural networks
- ▶ Reinforcement learning
- ▶ Long and short-term memory networks
- ▶ Resilient AI
- ▶ Natural language processing (NLP)
- ▶ Speech processing
- ▶ Computer vision
- ▶ Cognitive electronic warfare (EW)
- ▶ Cyber AI
- ▶ Predictive analytics
- ▶ Unsupervised learning
- ▶ Anomaly detection
- ▶ Graph analytics
- ▶ Machine learning microservices

PROVEN SUCCESS

At Leidos, we pride ourselves on creating solutions to technically challenging problems of global importance. For example, we defend our nation's most critical cyber networks against attack, improve the safety and efficiency of our airspace, and discover new ways to fight cancer. Likewise, our goal is to use leading-edge AI and ML technology to make the world safer, healthier, and more efficient.

WHY PARTNER WITH LEIDOS?

As a leading provider of data-rich solutions for the U.S. government, we understand our customers, their missions, and their data. By combining that understanding with our expertise in designing and building AI and ML systems, we're able to deliver solutions that provide immediate value for our customers' most important problems. Our knowledge of the underlying physics in many domains allows us to take a disciplined, science-based approach to AI and ML that distinguishes our solutions.

NEXT STEP

When deployed correctly, AI and ML have the power to do incredible things. For reliable, resilient, and secure AI-ML solutions, contact us at ai@leidos.com.

ABOUT LEIDOS

Leidos is a Fortune 500® information technology, engineering, and science solutions and services leader working to solve the world's toughest challenges in the defense, intelligence, homeland security, civil, and health markets. The company's 32,000 employees support vital missions for government and commercial customers. Headquartered in Reston, Virginia, Leidos reported annual revenues of approximately \$10.19 billion for the fiscal year ended December 28, 2018.

FOR MORE INFORMATION

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