



Fueling the AI revolution in government

The U.S. must take a leadership role in AI for the safety, security and prosperity of our citizens



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ARTIFICIAL INTELLIGENCE is the most transformative development of our time, and the White House's recent executive order underscores the federal government's commitment to utilizing this revolutionary technology to better the lives of citizens across the country.

The executive order directs agencies to prioritize investments in AI research, make more datasets available and prepare our workforce with STEM education and data science training.

Some agencies have already shown that GPU-enabled AI holds the promise

to save lives through improved health care and disaster relief, strengthen our cyber defenses, accelerate scientific breakthroughs, and cut billions in maintenance costs and waste.

AI is the future, and the future is now

AI is the biggest commercial opportunity in the world right now, according to a recent PwC report. It could contribute up to \$15 trillion to the global economy by 2030, and the World Economic Forum believes it will add almost 60 million net new jobs by 2022.

Even more important than the private-sector gains is AI's ability to make government more agile and efficient, delivering mission success with speed and value. The technology will drive agencies into the future, leaving a profound impact on the way they operate.

A few examples of how the government can leverage AI:

- **Health care.** AI offers the potential to detect and diagnose illness sooner, helping doctors prescribe more personalized treatments.
- **Cybersecurity.** Some intelligence leaders believe cybersecurity threats are on par with terrorism and weapons of mass destruction. By developing AI-powered cybersecurity systems and training federal employees, we can thwart threats in real time.
- **Disaster relief.** AI also has incredible potential to help experts predict disasters, and real-time intelligence for first responders can save lives and ease suffering.
- **Defense platform sustainment costs.** Maintenance costs typically equal 50 percent or more of any major platform at the Defense Department. AI could help lower these costs by predicting maintenance issues.
- **Waste, fraud and abuse.** Federal agencies will make \$141 billion in improper payments in fiscal 2017, according a recent Government Accountability Office report. Financial companies are applying AI to fraud prevention with tools such as interactive alerts, easy-to-report fraud transactions and the ability to lock cards in real time.

Given our vantage at the nexus of AI and government, we know that **harnessing this transformative technology** will be critical for our health, security and prosperity.





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The tools to harness AI’s potential

For this to work, though, the government must play a leadership role, making important contributions in at least three areas:

- 1. Data.** To echo the words of U.S. CIO Suzette Kent, the U.S. must invest in collecting, curating and making datasets available so that federal agencies can harness critical insights.
 - 2. Training.** The government should take steps to train its engineers in deep learning and data science, and train the next generation through STEM education programs.
 - 3. Computing infrastructure.** We need to modernize federal, university and research systems to give engineers and data scientists more powerful tools to develop and implement AI capabilities.
- Harnessing AI will be critical for our country’s health, security and prosperity, and NVIDIA is well-positioned to help agencies implement the executive order.
- Since researchers began using NVIDIA GPUs to train AI models eight years ago, our technology has been essential in fueling today’s AI revolution. Given our vantage at the nexus of AI and government, we know that harnessing this transformative technology will be critical for our health, security and prosperity. We look forward to helping agencies implement the executive order to improve services and save taxpayer money. ■

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