

# PUBLIC SUBMISSION

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## Submitter Information

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## General Comment

Response to RFI on the National Artificial Intelligence Research and Development Strategic Plan

As an AI researcher, I appreciate the opportunity to contribute to the update of the National AI R&D Strategic Plan. To ensure the United States maintains its global leadership in AI over the next 3 to 5 years, I respectfully submit the following recommendations:

### 1. Increase Funding for Foundational Research

To truly advance AI capabilities, we must invest in \*principled, long-term foundational research\*. Much of today's progress is driven by engineering and empirical advances, but sustaining leadership requires deeper theoretical understanding. This includes:

- Development of rigorous mathematical and statistical frameworks for guiding algorithm design.
- Fundamental research into explainability, robustness, generalization, and causality in AI.
- Long-term efforts in formal reasoning, automated theorem proving, and other cross-disciplinary foundations connecting AI to domains such as mathematics, physics, and biology.

Such work often requires years to mature but lays the groundwork for future breakthroughs.

### 2. Expand Support for Early-Career Researchers

The future of AI leadership also depends on nurturing the next generation of talent. Increased funding and targeted programs for \*early-career investigators\*—including tenure-track faculty, postdocs, and graduate students—will:

- Empower innovative ideas that might not fit within the scope of applied or short-term research agendas.
- Foster a more diverse, resilient, and dynamic AI research ecosystem.
- Create long-term retention of top talent within the U.S. research community.

Programs such as NSF CAREER and DARPA Young Faculty Awards should be scaled and diversified to support a broader pool of investigators working at the frontier of AI.

### 3. Scale Overall Investment in AI R&D

To maintain the U.S.'s position as the global AI leader, \*significantly increased investment across the AI research pipeline\* is essential:

- Support for both basic and use-inspired research.
- Public-private partnerships that encourage translation of academic innovations to industry.
- Large-scale national research centers and testbeds for safe, secure, and trustworthy AI development.

Increased federal investment also enables the U.S. to set ethical, safety, and interoperability standards that can shape global norms around AI deployment.