

Chief of IT and Data Technology

About ARPA-H

The Advanced Research Projects Agency for Health (ARPA-H) is charged with accelerating better health outcomes for all Americans by funding high-risk, high-reward research that the private sector alone cannot pursue. ARPA-H operates with the speed and boldness of a startup, the scale of the federal government, and an unrelenting focus on impact. The Agency is building the infrastructure, talent, and programs necessary to transform how America addresses its most pressing health challenges.

Position Overview

ARPA-H is seeking a visionary, mission-driven technology executive to serve as its **Chief of IT and Data Technology**. This is a senior role with agency-wide scope and authority, responsible for building and leading ARPA-H's entire technology, data, AI, and engineering infrastructure. The Chief of IT and Data Technology will define the Agency's enterprise technology strategy, establish its data governance and AI frameworks, lead software and systems engineering capabilities, and ensure that ARPA-H's internal platforms are as innovative and high-performing as the programs it funds.

This is a rare opportunity to architect the technology backbone of one of the most consequential health agencies in the federal government — at its earliest and most formative stage.

Key Responsibilities

Enterprise Technology Strategy & Leadership

- Develop and execute ARPA-H's long-term IT, data, AI, and engineering strategy, aligned with the Agency's mission, growth trajectory, and operational requirements.
- Serve as the Agency's senior technology advisor to the Director and senior leadership team, translating complex technical considerations into clear strategic decisions.
- Build and lead a high-performing, multidisciplinary technology organization spanning IT, data engineering, AI/ML, software development, and cybersecurity — establishing the structure, talent pipeline, and culture to support a fast-moving, mission-driven agency.

AI Strategy & Applied Intelligence

- Own and drive the Agency's artificial intelligence strategy, identifying where AI and machine learning can accelerate ARPA-H's programs, operations, and decision-making.
- Oversee the responsible development, deployment, and governance of AI systems across the Agency, ensuring alignment with federal AI policy, ethical standards, and emerging regulatory frameworks.
- Evaluate and integrate cutting-edge AI tools — including large language models, predictive analytics, computer vision, and AI-enabled research platforms — to enhance program outcomes and operational efficiency.
- Partner with Program Managers to assess AI's role in funded research and advise on technical feasibility, data requirements, and responsible use considerations.
- Position ARPA-H as a model for responsible, mission-driven AI adoption within the federal health enterprise.

Software & Systems Engineering

- Build and lead an internal engineering capability that designs, develops, and maintains the software systems, platforms, and tools that power ARPA-H's programs and operations.
- Establish engineering best practices — including agile development methodologies, DevSecOps pipelines, code quality standards, and continuous integration/continuous delivery (CI/CD) frameworks — appropriate for a federal environment.
- Oversee the architecture and development of custom platforms, program-facing tools, and internal productivity systems where commercial off-the-shelf (COTS) solutions are insufficient.
- Ensure engineering outputs meet federal security, compliance, and accessibility standards from design through deployment.

Data Infrastructure & Governance

- Design and implement an enterprise data architecture that enables ARPA-H to collect, manage, integrate, and leverage data across all program areas and administrative functions.

- Establish robust data governance policies and standards, ensuring data quality, security, privacy, and compliance with federal regulations including FISMA, FedRAMP, and applicable HHS directives.
- Build the data pipelines, lakes, warehouses, and analytics infrastructure that enable Program Managers, leadership, and partners to make faster, better-informed decisions.
- Champion data as a strategic asset — creating the systems and culture that treat data as a core driver of Agency performance and program impact.

Cybersecurity & Risk Management

- Own the Agency's cybersecurity posture, ensuring ARPA-H's systems, networks, and data assets are protected against evolving threats.
- Develop and maintain a comprehensive risk management framework consistent with NIST standards and federal cybersecurity mandates.
- Oversee authorization and accreditation (A&A) processes and ensure continuous monitoring of the Agency's security environment, including AI systems and engineering platforms.

Digital Modernization & Innovation

- Drive the adoption of modern, cloud-native technologies, automation, and AI-enabled tools that increase the Agency's operational efficiency and program effectiveness.
- Lead the evaluation and adoption of emerging technologies — including generative AI, advanced data analytics, digital health platforms, and next-generation infrastructure — and advise on their strategic application.
- Position ARPA-H as a model for technology-forward, engineering-driven federal agency operations.

Program Support & External Collaboration

- Partner with Program Managers to ensure program-level data, AI, engineering, and digital infrastructure needs are met and integrated into the Agency's broader technology ecosystem.
- Collaborate with HHS and its Divisions, DARPA, and other federal partners on interoperability, data-sharing agreements, AI governance, and shared technology initiatives.

- Engage with private sector technology leaders, AI researchers, academic institutions, and standards bodies to keep ARPA-H at the forefront of IT, data, and AI best practices.

Acquisition & Vendor Management

- Lead IT and AI acquisition strategy, working closely with the Office of Acquisition to procure technology solutions that are cost-effective, scalable, and mission-aligned.
- Oversee vendor relationships and contract performance for all major IT, data, AI, and engineering programs.

Qualifications

Required

- Demonstrated senior executive experience (10+ years) leading large-scale technology functions spanning IT, data, AI/ML, and software or systems engineering — including at least 5 years in a C-suite, SES, or equivalent enterprise leadership role.
- Proven track record of building and scaling multidisciplinary technology organizations, ideally in a startup, high-growth, or mission-driven environment.
- Deep technical expertise across enterprise architecture, cloud computing, cybersecurity, data engineering, and applied AI/ML.
- Hands-on experience leading software or systems engineering teams, with fluency in modern engineering practices including DevSecOps, agile methodologies, and CI/CD.
- Demonstrated experience developing and implementing AI strategies, including responsible AI governance frameworks and enterprise AI deployment.
- Experience navigating federal IT requirements, including FISMA, FedRAMP, NIST frameworks, and federal acquisition regulations.
- Exceptional executive communication skills with the ability to translate complex technical strategy for non-technical senior leaders and stakeholders.
- Demonstrated ability to attract, develop, and retain top-tier technology and engineering talent.

Preferred

- Experience in health IT, life sciences data platforms, digital health ecosystems, or biomedical AI applications.
- Background in building or scaling AI/ML platforms, including model training infrastructure, MLOps pipelines, or AI-enabled research tools.
- Familiarity with federated learning, privacy-preserving AI, or other advanced techniques relevant to sensitive health data environments.
- Prior experience in a federal agency, particularly within HHS, NIH, DARPA, or a comparable research-focused organization.
- Experience managing technology in a stand-up or early-stage government agency environment.

Leadership Competencies

Consistent with SES Executive Core Qualifications (ECQs), the ideal candidate will demonstrate:

- **Leading Change** — ability to drive transformation and build new systems in ambiguous, fast-moving environments.
- **Leading People** — experience building and inspiring high-performing, diverse technology and engineering teams.
- **Results-Driven** — a track record of delivering measurable outcomes against ambitious technical and operational goals.
- **Business Acumen** — sound judgment in resource allocation, acquisition, and enterprise risk management.
- **Building Coalitions** — skilled at forging partnerships across government, industry, academia, and the AI research community.

How to apply?

Send your resume to careers@arpa-h.gov.