

Where to Start: Projects and Placements for Technologists in Government

Riya Saran

For inquiries, contact: donald@techtalentproject.org

As technology plays an increasingly prominent role in daily life, the government is met with the challenge of adapting to and using modern technology. Despite significant developments in the private sector, the federal government has yet to implement the most modern technology and best innovation-forward practices. However, as the federal government has become more aware of this pattern, several federal agencies are enacting change by pursuing projects that incorporate and apply the most recent technologies to support their missions. This paper highlights the ten agencies with the largest budgets as well as their current projects and available placements.¹ Each of the following agencies offers various roles for technologists entering the government at all levels. While the following information outlines roles within the agencies as a whole, it is important to note that available positions are subject to change as roles are filled. All positions listed were last verified on October 6, 2020.

* Indicates a list of projects or programs available in the appendix.

US Department of Health and Human Services (HHS)

Within HHS, the Office of the Chief Technology Officer (CTO) is tasked with “[catalyzing] innovation across HHS to improve health and well-being of the nation.”² In an effort to support this mission, the Office of the CTO draws from people of diverse backgrounds ranging from academia to government to industry and centers their work on three main initiatives:

Digital Services

The Digital Services initiative is the consulting side of the Office of the CTO and works to provide innovative solutions to increase American quality of life.

Data Optimization

The Data Optimization initiative draws primarily from data analysts and IT specialists to improve how HHS shares, integrates, analyzes, and visualizes high-value data and fosters evidence-based decision-making. So far, the initiative has allowed HHS to partner with the Center for Open Data Enterprise to enable the public release of over 4,500 data sets.³

Innovation and Partnerships

The Entrepreneur-in-Residence (EIR) Program is geared towards mid- to senior-level professionals who are looking to take a 13 month Tour of Duty in the federal government. These professionals come from backgrounds in academia, technology, entrepreneurship, software design, policymaking, business, or nonprofit leadership.

HHS is currently seeking chief technology officers, IT specialists, cybersecurity specialists, and telecommunications specialists to support 147 projects across these three initiatives.

¹ “U.S. Government - Budget, by Agency 2021.” *Statista*, Erin Duffin, 3 Mar. 2020, [bit.ly/30OyUSE](https://www.statista.com/statistics/1091146/us-government-budget-by-agency/).

² “About the Office of the CTO.” *HHS.gov*, U.S. Department of Health and Human Services, 15 May 2020, [bit.ly/3nsXZMR](https://www.hhs.gov/office-of-the-cto/).

³ “Data Optimization.” *HHS.gov*, U.S. Department of Health and Human Services, 15 May 2020, [bit.ly/33H19XM](https://www.hhs.gov/office-of-the-cto/data-optimization/).

US Department of Defense (DOD)

DOD's current technology projects include [Open Government](#) and [Operation Warp Speed](#). Open Government was established in response to former President Obama's challenge to create and institutionalize a culture of openness and accountability at all levels of government. DOD focuses on transparency, participation, and collaboration through two main initiatives:

Declassification of Formerly Restricted Data

Declassification works to ensure a "systematic review process for the declassification of no-longer sensitive historical information on nuclear programs."⁴

Defense Advanced Research Projects Administration (DARPA) Open Catalog

The Open Catalog promotes efficiency and effectiveness by offering a "curated list of DARPA-sponsored software and peer-reviewed publications."⁵

These projects strive to enable the development of communities around government-funded software and research. In addition to efforts to support the Open Government challenge, DOD has also centered their work on Operation Warp Speed, an attempt to accelerate the production and release of resources necessary to combat COVID-19.

DOD is currently seeking technologists at all levels in the following areas to support their initiatives: cybersecurity, IT, intelligence, engineering, finance and accounting, medicine, data analytics, logistics, welding, and maintenance. In addition to permanent roles, DOD also offers several [internships](#) for students, graduates and professionals.*

US Department of the Treasury (Treasury)

The Financial Innovation and Transformation (FIT) within the Bureau of Fiscal Service at [Treasury](#) works to improve transparency in federal financial management. FIT prioritizes innovation, transformation, and optimization, as well as managing the Financial Management Line of Business (FMLoB).⁶ FMLoB is an interagency group working to solve financial management issues. FIT centers its work on several [projects](#) to support these initiatives.* Treasury is currently seeking employees in the following areas: accountants, attorneys, budget analysts, contract specialists, economists, financial analysts, human resources specialists, IT specialists, and intelligence specialists. Treasury also offers the [Headquarters Student Internship Program](#) for high school, undergraduate, and graduate students as well as [Pathways](#) and the [Law Student Internship Programs](#).*

US Department of Veterans Affairs (VA)

The [VA](#) is currently working on the following projects related to health and technology: Maintaining Internal Systems and Strengthening Integrated Outside Networks ([MISSION Act](#)), which promotes greater access to health care; the Electronic Health Record Modernization ([EHRM](#)), which links veteran health data with DOD patient records; and the National Artificial Intelligence Institute ([NAII](#)), which conducts AI research and development for veterans' health care. In addition to these programs, the Office of Research and Development has centered their focus on ten [project areas](#). The VA offers internships through Pathways, hires technologists primarily through USDS, and will post roles through USDS and USAJobs.gov as available.

⁴ "Declassification of Formerly Restricted Data." *DOD Open Government*, U.S. Department of Defense, bit.ly/3lvfVVM.

⁵ "DARPA Open Catalog." *DOD Open Government*, U.S. Department of Defense, bit.ly/36O5ITK.

⁶ "Financial Innovation & Transformation." *Bureau of the Fiscal Service*, U.S. Department of the Treasury, bit.ly/3nxGHOz.

US Department of Agriculture (USDA)

[USDA's](#) primary technology initiatives include the Agricultural Innovation Agenda, Energy, and the Veterans website. The Agricultural Innovation Agenda strives to “[increase] US agricultural production by 40% while cutting the environmental footprint of US agriculture in half by 2050.”⁷ Projects to achieve this goal include improving coordination, standardizing a process to integrate proven technologies, working with outreach networks to identify innovative opportunities, and soliciting and encouraging the development of innovative technology from the private sector. In relation to energy, USDA has established the Energy Investments Map, which shows where USDA can provide support for sustainable energy sources, the USDA Energy Matrix, which offers research and development on affordable energy solutions, and the Bioeconomy Tool Shed, which provides web-based products and statistical data regarding the bioeconomy. USDA has also engaged in several Special Projects and partnerships with other agencies in relation to energy as well as maintaining their veterans’ website, which “serves as a one-stop navigator for veterans looking to learn more about employment, education, and entrepreneurship on or beyond the farm.”⁸ USDA is currently seeking IT specialists to support their projects and continues to post available placements on USAJobs.gov. In addition to permanent roles, USDA also offers [internships](#) for students in qualifying educational programs or institutions.*

US General Services Administration (GSA)

The [GSA](#) is currently working on 25 [governmentwide initiatives](#)* pertaining to technology including addressing issues related to cybersecurity, management, transparency, education, accessibility, energy, and online payments. The GSA is currently seeking students and recent graduates to serve in the Federal Acquisition Service (FAS) as program analysts, project managers, and contract specialists; the Public Buildings Service (PBS) as program analysts, project managers, contract specialists, realty specialists, and building management specialists; the Office of the Chief Information Officer (OCIO) as IT specialists; and the Office of Human Resources Management (OHRM) as program analysts. In addition to student and recent graduate roles, the GSA posts positions on USAJobs.gov separated into the following categories: [federal employees and recent retirees](#), [private sector employees](#), [veterans](#), [persons with disabilities](#), and [peace corps volunteers/staff](#).

US Social Security Administration (SSA)

Since 2012, the [SSA](#) has been working to develop its Digital Government Strategy to allow “citizens to securely access high-quality government information, data and services ‘anywhere, anytime, on any device.’”⁹ Within the SSA, the Office of Research, Demonstration, and Employment Support is currently working on two technology projects: the Occupational Information System Project, to analyze the effectiveness of the National Compensation Survey, and the Quick Disability Determinations Predictive Model and Fast-Track Processes to develop computer-based screening tools. In support of these programs, the SSA is seeking IT specialists in the following areas: applications software, customer support, data management, enterprise architecture, internet, network services, operating systems, policy and planning, security, systems administration, and systems analysis. The SSA also offers opportunities for students and recent graduates through Pathways as well as veterans and individuals with disabilities.

⁷ “Initiatives and Highlighted Programs.” *USDA*, U.S. Department of Agriculture, bit.ly/3de7QBJ.

⁸ *Id.*

⁹ “About Us.” *SSA*, U.S. Social Security Administration, bit.ly/30R9IuZ.

US Department of Transportation (DOT)

The [DOT's projects](#)* are centered on safety, innovation, and infrastructure. An emphasis on safety has prompted the Safety Data Initiative to “evolve from retrospective to predictive analysis... through data integration, analysis, and visualization improvements.”¹⁰ With regards to innovation, the DOT is focused on incorporating AI and automation technology, and in relation to infrastructure, the DOT is working to develop rural opportunities to improve infrastructure across America. The DOT is currently seeking IT specialists, airway transportation systems specialists, project managers, general engineers, and aerospace engineers. DOT also offers opportunities for veterans and persons with disabilities as well as [internships](#)* for students. The agency continues to update its roles on USAJobs.gov. However, when searching for jobs, it is most effective to narrow the results to specific agencies within the DOT.

US Department of Education (ED)

The [ED's](#) current technology-related initiatives include Early Learning, Increasing Educational Productivity, Innovation.ed.gov, and the Office of Educational Technology. Within these initiatives, the ED is seeking education program specialists, management and program analysts, and education research scientists/analysts. In addition to permanent roles, the ED also offers student and recent graduate [internships](#) through Pathways and the Student Volunteer Trainee Program in the following areas: human resources management, education policy, data analytics, project management, training and development, grants management, communications, and IT.

US Department of Homeland Security (DHS)

[DHS](#) has identified nine science and technology focus areas: borders and maritime security and port of entry screening; centers of excellence and academia; chemical and biological defense; critical infrastructure and resilience; cybersecurity; tests, evaluations, standards and systems engineering; explosives detection and aviation screening; first responders; and unmanned aerial systems. Within these focus areas, DHS offers several [programs](#)* for students and recent graduates as well as various opportunities for veterans and individuals with disabilities. Unlike many other agencies, DHS also offers two programs specifically designed for [executives](#): the Senior Executive Service Candidate Development Program and the Loaned Executive Program, which works with the private sector to develop innovative solutions. DHS is currently seeking IT specialists, IT cybersecurity specialists, contract specialists, program analysts, telecommunications specialists, electrical engineers, architects, general engineers, and systems engineers to provide support in their focus areas.

For those who have tech experience in the private sector and are beginning to explore government roles, or for technologists actively seeking roles in the civic tech space, these ten agencies offer positions for people at all levels, coming from all backgrounds. However, the roles within these agencies are only the beginnings of the opportunities available to technologists. As the federal government continues to evolve and recognize the value of technology, incoming technologists will play a critical role in helping each agency achieve its mission to serve the American people.

¹⁰ “Safety Data Initiative.” DOT, U.S. Department of Transportation, 18 Mar. 2019, bit.ly/3iImphF.

Appendix

DOD

Internships

- Workforce Recruitment Program for College Students with Disabilities
- Washington Headquarters Services
- National Security Agency
- Air Force PALACE Acquire Intern Program
- Army Contracting Command, Contracting Career Intern Program
- Financial Management Trainee Program

Treasury

Projects

- Artificial intelligence Accelerator
- Digital End-to-End Efficiency
- Distributed Ledger Technology
- Innovation Partnership
- Maturity Self-Assessment Tool
- Next Generation Analytics
- Robotic Process Automation
- Treasury Financial Experience

Headquarters Internships

- Office of Domestic Finance
- Office of Tax Policy
- Office of Economic Policy
- Office of International Affairs
- Office of Terrorism and Financial Intelligence
- Office of Management
- General Counsel
- Legislative Affairs
- Public Affairs

Law Student Internships

- Assistant General Counsel for Banking and Finance
- Assistant General Counsel for Enforcement and Intelligence
- Assistant General Counsel for General Law, Ethics and Regulation
- Assistant General Counsel for International Affairs
- Office of Tax Legislative Counsel
- International Tax Counsel

- Benefits Tax Counsel
- Chief Counsel, Alcohol and Tobacco Tax and Trade Bureau
- Chief Counsel, Bureau of Engraving and Printing
- Chief Counsel, Office of Financial Research
- Chief Counsel, Office of Foreign Assets Control
- Chief Counsel, United States Mint

VA**Project Areas**

- Office of Research Protections, Policy, and Education
- Technology Transfer Program
- Cooperative Studies Program
- Million Veteran Program
- Quality Enhancement Research Initiative
- Biosafety and Biosecurity
- VA Biorepository Brain Bank Program
- Animal Research
- Research Equipment Quick Use Initiative Program
- Women's Health

USDA**Special Projects/Partnerships with Other Agencies**

- Biomass Research and Development
- Defense Production Act Memorandum of Understanding
- Farm to Fly
- Flex Fuel Pumps
- Higher Blends Infrastructure Incentive Program
- Memorandum of Understanding with the Dairy Industry
- Memorandum of Understanding with the Department of Navy
- Memorandum of Understanding between USDA and DOE: Relative to Cooperation and Coordination on Improving Energy Development in Rural America
- Secretary's Biofuels Production Roadmap
- USDA Regional Biomass Research Centers
- Wood to Energy

Internships

- Veterinary Science
- Natural Resources and Biological Sciences
- Engineering and Architecture
- Business, Contracting, Procurement, and Industry

- General Administration and Office Support
- Financial Management
- Information Technology

GSA
[Governmentwide Initiatives](#)

- Acquisition Gateway
- Category Management
- Cybersecurity
- Data Center Optimization Initiative (DCOI)
- DotGov Domain Services
- Evidence-Based Decision-Making
- FedRAMP
- Greening Federal Buildings
- High Performance Buildings
- Identity, Credentials, and Access Management (ICAM)
- Information Integrity and Access
- Mobile Government
- Online Billing
- Open Data
- Open Government
- Plain Language
- Presidential Transition
- Safer Schools, Safer Communities
- School Support
- Shared Solutions and Performance Improvement
- Sustainability
- Technology Modernization Fund
- Telework
- Total Workplace
- Travel Resources

DOT
[Projects](#)

- Safety Data Initiative
- Unmanned Aircraft Systems
- USDOT Automated Vehicles Activities
- Intelligent Transportation Systems Joint Program Office
- DOT Tech Transfer
- Non-Traditional and Emerging Transportation Technology (NETT) Council

- Build America
- Infrastructure Permitting Improvement Center
- Rural Opportunities to Use Transportation for Economic Success (ROUTES)

Student Opportunities

- Pathways
- Secretarial Internship
- Office of Inspector General Internship
- Workforce Recruitment Program for College Students with Disabilities
- Student Transportation Internship Program Diverse Groups (STIPDG)
- Professional Development Program (PDP)
- RITA VOLPE Internship Program
- FAA Summer Air Traffic Collegiate
- FAA Technical Operations Collegiate Training Initiative
- FAA Law Honors Intern Program
- Minority Serving Institution (MSI)
- FAA Summer Employment Initiative
- Dwight Eisenhower Fellowship Program

DHS

Student Opportunities

- Secretary's Honor Program - Cyber Student Intern Program
- Pathways
- National HS-STEM Summer Internship Program
- Summer Research Team Program
- Seaborg Institute Nuclear Science Summer Internship Program
- Nuclear Forensics Undergraduate Summer School
- Office of Intelligence and Analysis Internship Program

Recent Graduate Opportunities

- Secretary's Honor Program
- Pathways
- Acquisition Professional Career Program