# NASA DEVELOP – 2025 Summer Proposed Project List (v3. Feb 4, 2025)

NOTE: These project ideas are **tentative** and **subject to change**. This list may be updated throughout the application period.

The DEVELOP summer 2025 term will offer opportunities for in-person or virtual participation, by project. The work environment of the opportunity will be dependent on the project and DEVELOP location. Each location will conduct 1-5 projects for the summer 2025 term.

When selecting your preferred location(s), please pay attention to the type of opportunity selected based on the location and project offers on this document and how that aligns with your eligibility.

# **In-Person Project Opportunities**

| Federal Locations (Requires U.S. Citizenship)                       | # of Projects |
|---|---------------|
| AL – Marshall (Huntsville, AL)                                      | 1-2           |
| CA – Ames (Mountain View, CA)                                       | 1             |
| CA – JPL (Pasadena, CA)   | 1-2           |
| MD – Goddard (Greenbelt, MD)  | 1-2           |
| NC – NCEI (Asheville, NC)   | 1             |
| VA – Langley (Hampton, VA)  | 1-2           |
| VA – Langley Space Weather (Hampton, VA)                            | 2             |
| Regional Locations (Open to U.S. Citizens & Non-U.S. Citizens)      |               |
| CO – Fort Collins (Fort Collins, CO)                                | 1             |
| GA – Athens (Athens, GA)  | 1             |
| ID – Pocatello (Pocatello, ID)                                      | 1             |
| MA – Boston (Boston, MA)  | 1             |
| PUP – Pop-up Project at the University of Michigan (Ann Arbor, MI)  | 1             |
| PUP – Pop-up Project at Texas Tech University (Lubbock, TX)         | 1             |
| PUP – Pop-up Project at Northern Arizona University (Flagstaff, AZ) | 1             |
| PUP – Pop-up Project at Hunter College (New York, NY)               | 1             |

# **Virtual Project Opportunities**

| Locations Hosting Virtual Projects (Open to U.S. Citizens & Non-U.S. Citizens) | # of Projects |
|--|---------------|
| CA – Ames  | 0-2           |
| CA – JPL   | 0-1           |
| CO – Fort Collins  | 0-1           |
| GA – Athens  | 0-1           |
| ID – Pocatello   | 0-2           |
| MA – Boston  | 0-1           |
| MD - Goddard   | 0-1           |
| NC – NCEI  | 0-1           |
| VA - Langley   | 0-1           |

Notes: Virtual projects are open to all candidates (US citizens and Non-U.S. Citizens). Virtual projects are **extremely** competitive.

# Proposed Project List by DEVELOP Location

#### AL - Marshall

- Michoacan Ecological Conservation: Using ECOSTRESS to Assess the Efficacy of Natural Forest as a Cooling Intervention for Avocado Cultivations (in-person project)
- ▶ Coosa River Water Resources: Observing the Effects of Logging on Sedimentation in Coosa River (in-person project)

### CA - Ames

- Sonoma Coast Climate: Evaluating Fog Patterns Using Satellite Data to Preserve Redwood Forests (in-person project)
- Florida Keys Ecological Conservation II: Evaluating Sediment Plumes using NASA Earth Observations to Inform Management Decisions in the Florida Everglades (virtual project)
- Harrisburg County Health & Air Quality: Using Earth Observations to Identify Areas with Areas of High Burden of Air Pollution and Associated Public Health Impacts in Harrisburg County, Texas (virtual project)

### CA - JPL

- ▶ Los Angeles County Ecological Conservation: Mapping and Identifying Urban Oak Trees in Los Angeles County (in-person project)
- Amargosa Basin Ecological Conservation II: Using NASA Earth Observations to Track Seasonal Changes in Standing Water as a Means of Assessing the Health of the Amargosa Basin Vole Habitat (in-person project)
- Montana Wildland Fires: Utilizing Solar Induced Chlorophyll Fluorescence to Identify Fine Rangeland Fuels Conditions (virtual project)

## CO - Fort Collins

- ▶ Southern Rocky Mountains Ecological Conservation: Mapping Mixed Mountain Shrub Communities to Inform Wildlife Management in Park County, Colorado (in-person project)
- Santa Cruz Mountains Wildland Fires: Evaluating Redwood Canopy Recovery to Inform Post-Fire Forest Management (virtual project)

#### **GA - Athens**

- ▶ Coastal South Carolina Water Resources II: Mapping Threatened Freshwater Wetlands Near Underserved Communities in South Carolina (in-person project)
- Zimbabwe Ecological Conservation II: Assessing Effects of Development and Drought on Tree Health to Protect White-Backed Vulture Nesting Sites in Zimbabwe (virtual project)

#### ID – Pocatello

- Northern Minnesota Ecological Conservation: Exploring Classification of Forest Cover Types in Northern Minnesota Using NASA EO (in-person project)
- ▶ Treasure Valley Health & Air Quality: Analyzing Urban Heat Trends in Response to Rapid Urban Expansion in Treasure Valley, Idaho (virtual project)

#### MA - Boston

- ▶ Inland Lakes Water Resources: Implementing Earth Observation Data to Assess Water Quality in Inland Lakes (in-person project)
- New Hampshire Health & Air Quality: Using Earth Observations to Quantify Greenhouse Gas Emissions Produced by Landfills in New Hampshire (virtual project)

#### MD - Goddard

- ▶ Sonoran Desert Ecological Conservation II: Identifying and Mapping Stinknet in Southern Arizona Using Harmonized Landsat and Sentinel Data (in-person project)
- ▶ **Wilmington Energy Resources:** Evaluating Solar Energy Production Potential in Delaware to Inform Equitable Community Solar Development (in-person project)
- Utah Ecological Conservation: Identifying Areas of High Restoration Potential Following Invasive Species
  Disturbance (virtual project)

#### NC - NCEI

- ▶ **New Jersey Pinelands Water Resources:** Utilizing NASA Earth Observations to Investigate Impacts of Aquifer Withdrawal on Wetlands (in-person project)
- ► **Kiowa Water Resources:** Assessing Groundwater Storage and Contamination Risk in Kiowa Tribal Lands (virtual project)

#### **VA - Langley**

- ▶ Andes Wildland Fires: Identifying and Mapping Fire and Drought throughout the Andes to Assess Vulnerabilities and Risks to Prioritize Conservation and Restoration Efforts (in-person project)
- ▶ Oakland Park Health & Air Quality: Leveraging Earth Observations Data to Assess Urban Heat Vulnerability in Oakland Park, Florida (in-person project)
- ▶ O'Higgins Ecological Conservation: Improving Early Detection of Vineyard Plant Stress in Chile's O'Higgins Region Using Multispectral Imagery from Earth Observations (virtual project)

## VA – Langley Space Weather

- Denali & Glacier Space Weather II: Spatiotemporal Characteristics of Aurora Using Earth Observations (in-person project)
- ▶ Brazil Space Weather II: Space Weather Impact on Precision Air Navigation Using Global Navigation Satellite Systems (in-person project)

### PUP – PUP at University of Michigan

 Great Lakes Region Ecological Conservation: Assessing Wetland Greenhouse Gas Sequestration in the Great Lakes Region Using Earth Observations (in-person project)

### PUP - PUP at Texas Tech University

▶ Costa Rico Ecological Conservation: Assessing Land Use and Land Cover Change in Costa Rica's Biological Corridors with Earth Observations to Support Biodiversity and Sustainable Agroecosystems (in-person project)

#### PUP – PUP at Northern Arizona University

Southwest Ecological Conservation: Assessing Tree Health and Mortality in the Southwestern United States Using NASA Earth Observations (in-person project)

#### PUP - PUP at Hunter College

▶ Central Park Ecological Conservation II: Assessing Drought and Tree Health Conditions in New York City's Central Park with Earth Observation Data (in-person project)