March 2025

Data Science for Sustainable Development

Students applying **data science for social impact** through collaborative, real-world projects

Student Sustainability Summit 2025

1 **Our Mission**: Data for Good

2 **Our Projects**

3 **Data Analysis Workshop**: Wildfires

4 **Resources & Opportunities**

Technology for Positive Impact

in support of the Sustainable Development Goals

What we do

We are a **student-run** university chapter of the nonprofit Data Science for Sustainable Development

We provide technical services to nonprofits, startups, and researchers, applying data science for projects in sustainable development

- Build dashboards and websites
- Process data
- Train AI models
- Conduct research
- Host workshops

Why data science?

- Accurate data helps us better understand the world
- We can’t solve a problem without understanding it
- Use data to identify global & local patterns
- Make informed decisions

OUR MISSION

Technical support for social impact organizations

Experiential learning for students

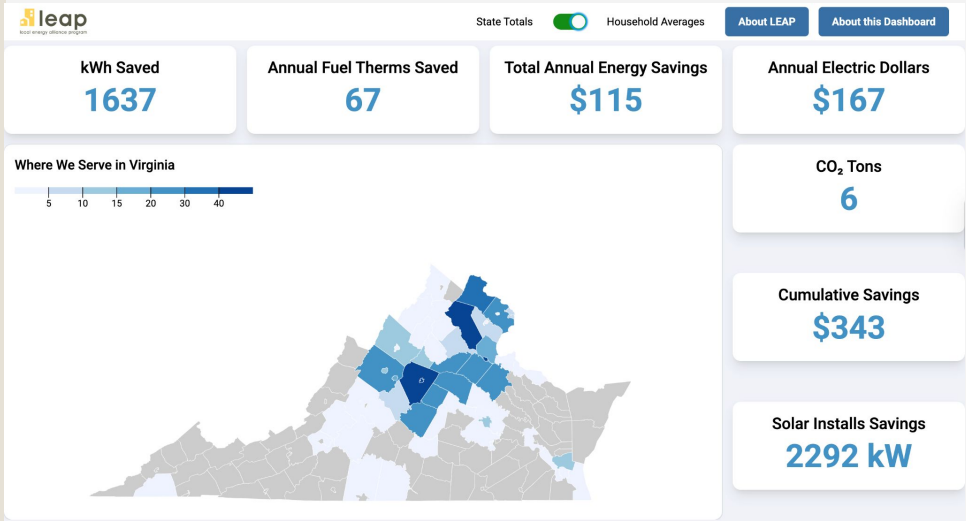
Project Examples

PROJECT DEMO

Energy Efficiency Dashboard

Energy Efficiency Dashboard

- Partner with the Local Energy Alliance Program (LEAP)
- Shows data updated in real time
- Features:
  - Toggle between statewide totals and household averages
  - Interact with the map to see LEAP's impact in Virginia

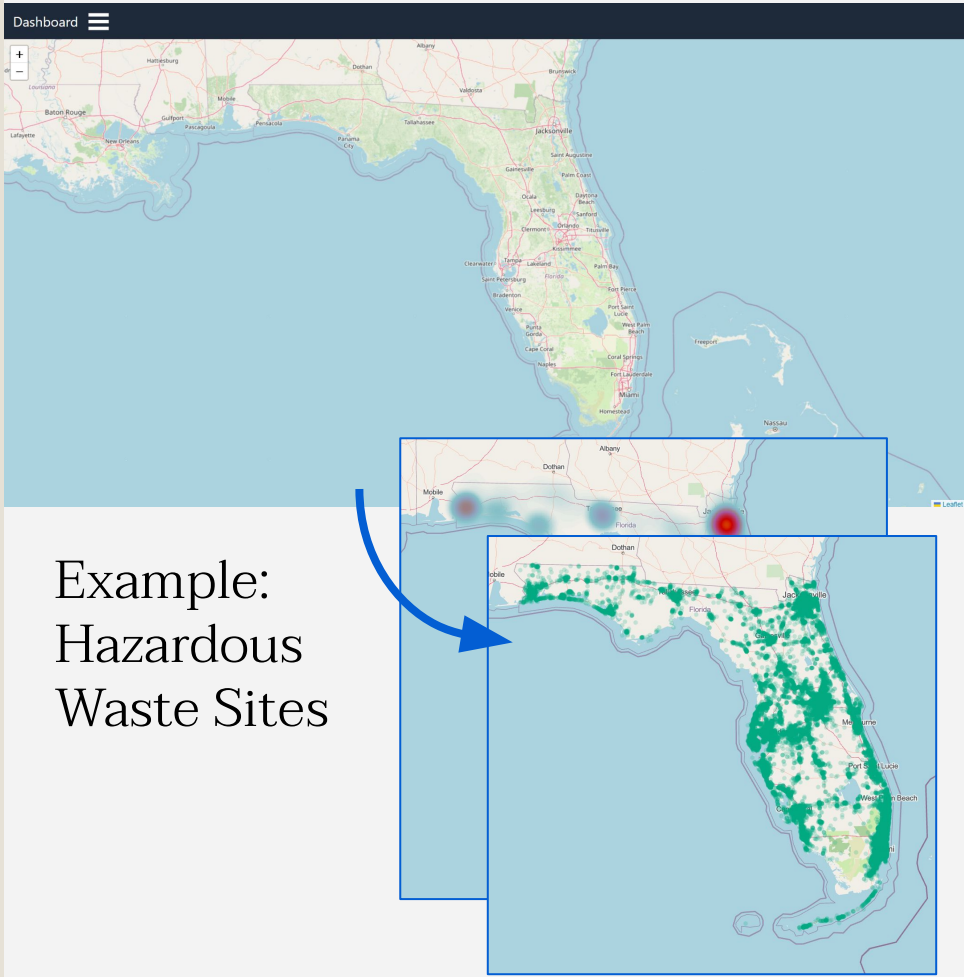


PROJECT DEMO

Environmental Hazard Dashboard

Environmental Hazard Dashboard

- Show environmental hazard data and understand demographic variables
- Assist with research in environmental justice



ACTIVITY

Analyzing Fires in California

Let's code our own project using Python in Google Colab

Head to → bit.ly/dssd-code

Resources

- Coding Platforms:
  - Google Colab
  - Jupyter Notebooks
  - RStudio
- Visualization Platforms:
  - Google Data Studio
  - Tableau Public
  - Power BI
- Datasets:
  - Florida Geographic Data Library
  - ArcGIS Hub
  - Kaggle

Data for Climate Action Opportunity

Mapping Justice by trubel&co

- Virtual, June - August 2025
- For 10th through 12th grade high school students from Hawai‘i and the Gulf Coast
- Learn how to apply data, design, and technology to address environmental issues

Thank You!

@DSSD.GNV