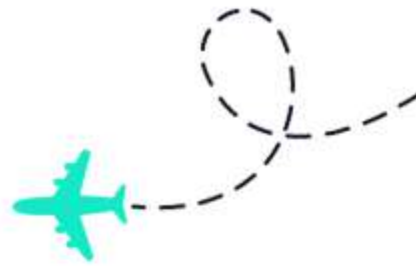# 🌤️ Will It Rain On My Parade?

"Turning NASA's decades of weather data into actionable insights."

Team
Grahan

# The Problem

Challenges in Planning Outdoor Events Due to Weather Forecast Limitations

## Uncertain Forecasts

- Planning outdoor events like vacations, parades, and hikes often faces weather uncertainty.
- Short-term forecasts (7–10 days) work well, but predictions months in advance do not.

## Vs

## NASA Data Potential

Although long-term climate data exists, it is complex and difficult to access.

# Our Solution

An app that turns NASA's climate data into clear weather probabilities.

**Uses NASA's historical and modeled datasets.**

**Provides likelihoods of heat, rainfall, wind, humidity, and more.**
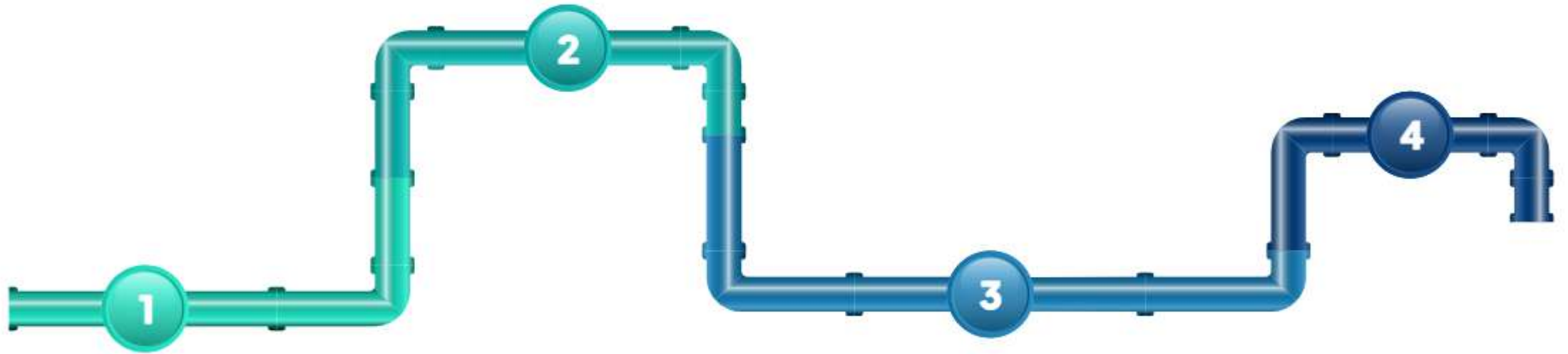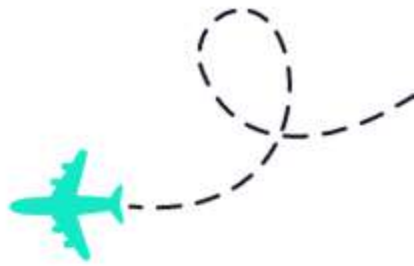
**Helps users plan months in advance instead of guessing.**

# How It Works

Step-by-step process from input to actionable insights



**Input**

Select date and location (via map or search).

**Data**

NASA APIs provide rainfall, windspeed, temperature, and cloud cover.

**Processing**

Probability and trend analysis performed.

**Output**

Dashboard with graphs, maps, and insights.

# Comprehensive Technology Stack Overview

Leverage innovative NASA open data and advanced probabilistic modeling integrated through a robust tech stack

| Frontend & Visualization | Backend & Data Sources | Hosting |
|---|---|---|
| Frontend: React.js, Mapbox for interactive maps | Backend: Python (FastAPI), Flask (optional) | Hosting: AWS / GitHub Pages |
| Visualization: D3.js, Chart.js | Data Source: NASA Earth Observing System, GPM, MERRA-2 datasets | |

# Impact & Benefits

Empowering smarter planning through NASA-backed insights



1 🎉 Event organizers: choose ideal dates and plan backups



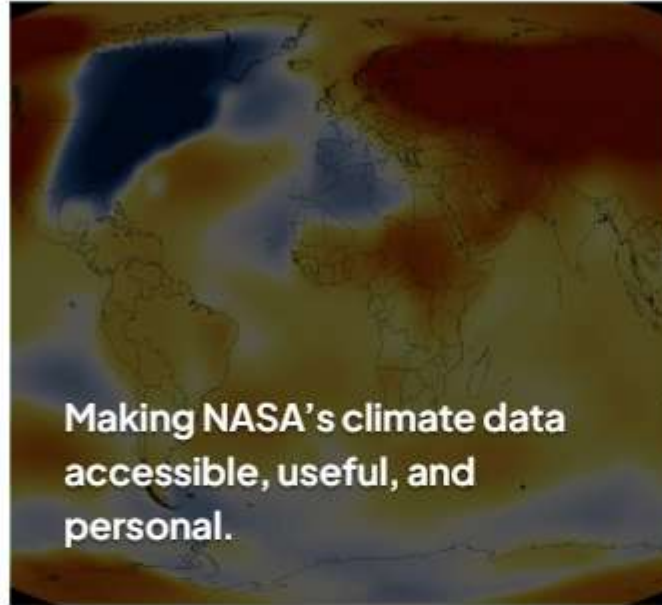2 🏞️ Travelers & outdoor lovers: prepare better for weather variability

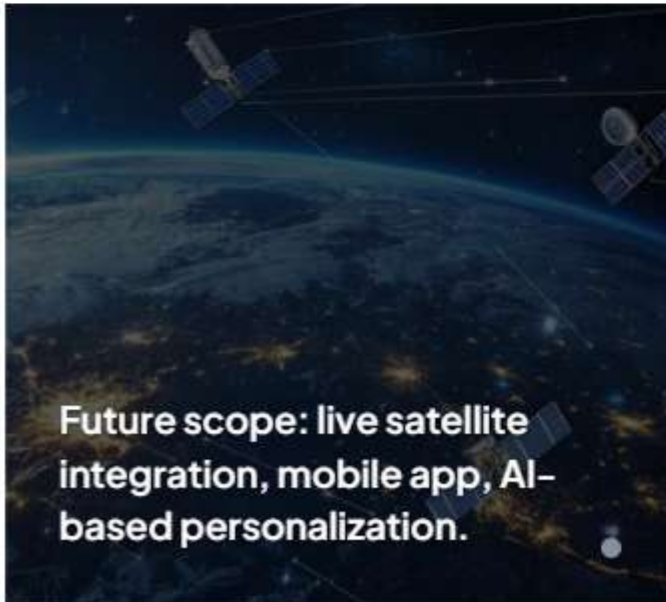3 🧑‍🎓 Students & educators: learn from real NASA climate data



4 🌍 Global impact: democratizing climate awareness and preparedness

We don't predict weather — we empower people to make data-driven decisions.


Making NASA's climate data accessible, useful, and personal.


Future scope: live satellite integration, mobile app, AI–based personalization.


Thank you!!!

# Conclusion / Vision

We don't predict weather — we empower people to make data-driven decisions.