



Space X Data

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OUR “GOAL”

We seek to analyze data and program the visuals of the challenge in a way that's represents our team and enhances the solution to be more predictable.

Problem statement

Farmers struggle to make informed decisions due to climate variability and insufficient access to real-time data. While Earth observation data offers valuable insights, its integration into decision-making processes is often inadequate. This gap hinders optimal yields and resource efficiency, underscoring the need for effective tools to leverage this data for improved agricultural practices.

Solution and ideas

A data-centric solution for agricultural water management involves developing a comprehensive analytics platform that integrates NASA's Earth observation datasets, including IMERG for precipitation, SMAP for soil moisture, and ECOSTRESS for evapotranspiration. This platform would feature predictive analytics to forecast water availability and crop needs using machine learning models.

A decision support system would provide real-time insights and actionable recommendations for irrigation and drought preparedness. Interactive dashboards would visualize key metrics and regional data trends, while a community-based data sharing platform would facilitate collaboration among farmers. Educational resources would enhance users' ability to interpret data effectively, ultimately empowering the agricultural community to make informed decisions that enhance productivity and sustainability.

Our features

- – Continuous Monitoring: Supports integration of data from drones and IoT devices for comprehensive, real-time data collection.
- – Ethical Data Practices: Emphasizes FAIR and CARE principles in data management, ensuring responsible and equitable use of data.
- – Insightful Dashboard: Transforms complex data into clear visuals, highlighting key environmental metrics such as soil moisture, precipitation, and drought risks, aiding informed decision-making for all farm sizes.



THANK YOU



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