

THE DISAPPEARING ICE

(TELL US A CLIMATE STORY)

TEAM NAME:

CLIMATE SCULPTORS

KARACHI, PAKISTAN

NASA SPACE APP CHALLENGE



Hi!

THIS IS US



Noorulain Farooq



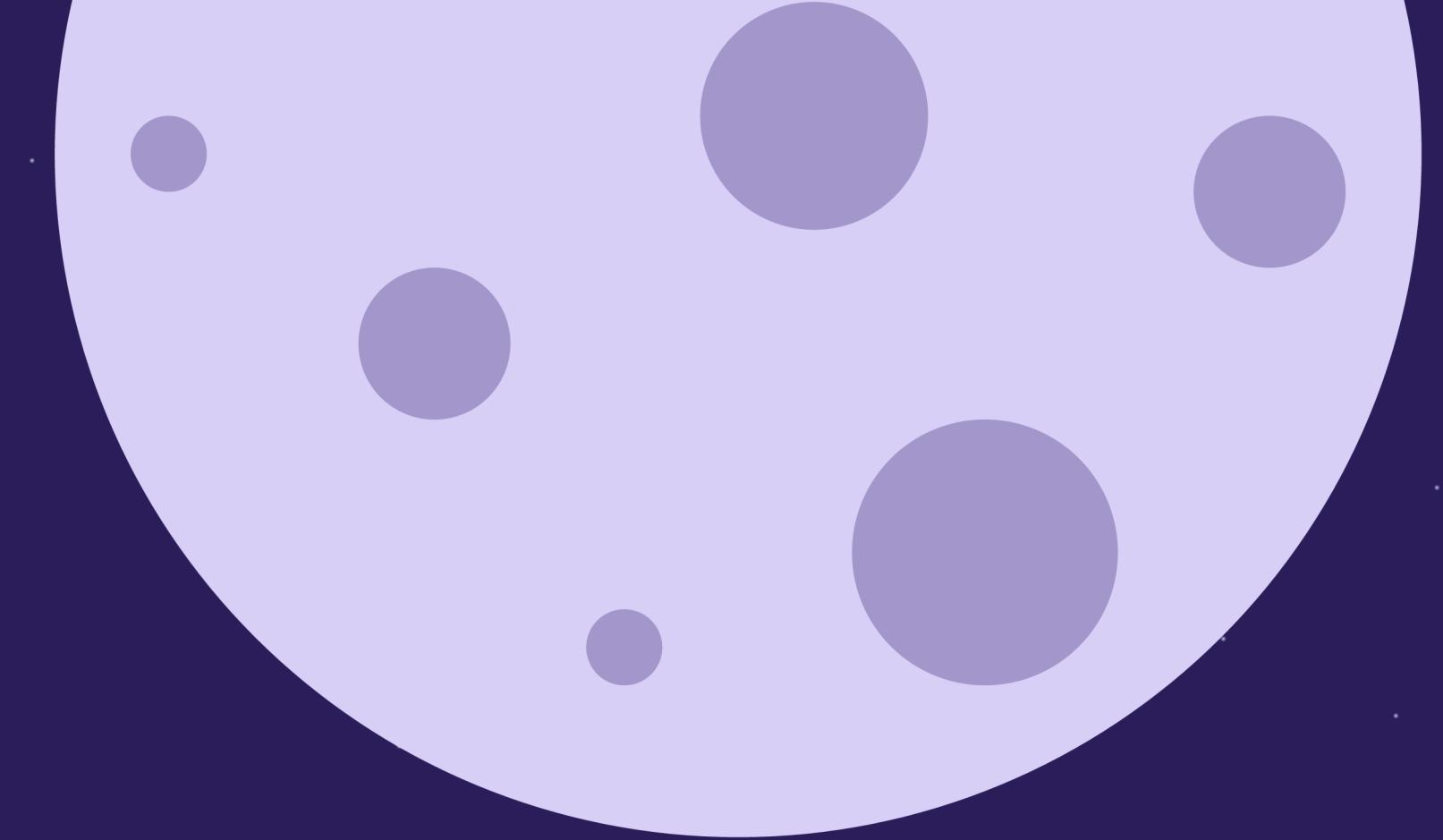
Aakanksha Pardeep



Sanjana Kumari

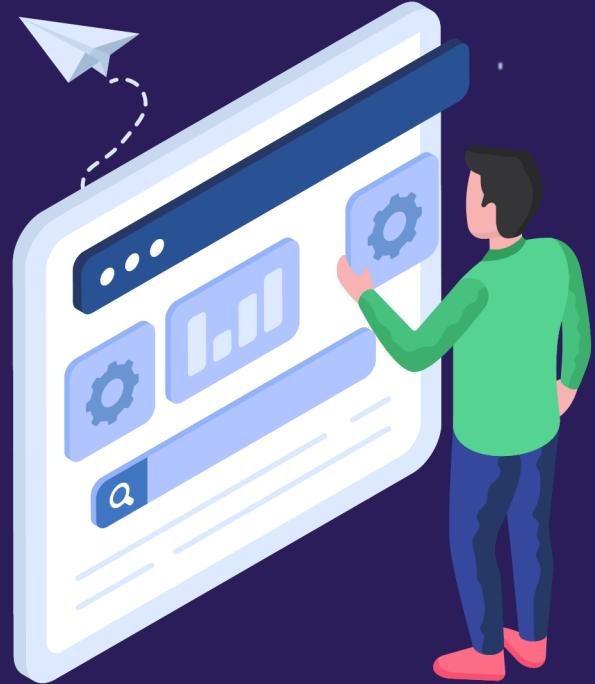


Hamna Aziz



Methodology

- **Data Sources:** Utilized NASA's Earth Data Search and Open Data Portal, integrating datasets from USGS and Copernicus to ensure comprehensive and accurate information on glaciers in Southeast Greenland.



A screenshot of the NASA Earth Data Search interface. The search results page shows a single matching collection for "NSIDC-0796 V001". The collection is titled "Glacial and Fast Ice Distributions in Southeast Greenland Fjords V001" and spans from 2015-01-01 to 2019-12-31. It includes a note about spatial distributions of fast ice and glacial ice in eight fjords. The interface features standard search filters like "Browse Portals" and "Filter Collections".

User Experience

Our interactive dashboard allows users to:

- Zoom into Specific Fjords: Explore detailed data on particular areas of interest.
- Compare Glaciers: Easily evaluate differences in discharge rates and behaviors among various glaciers.
- Examine Seasonal Trends: Analyze changes in glacier dynamics over different seasons for deeper insights.

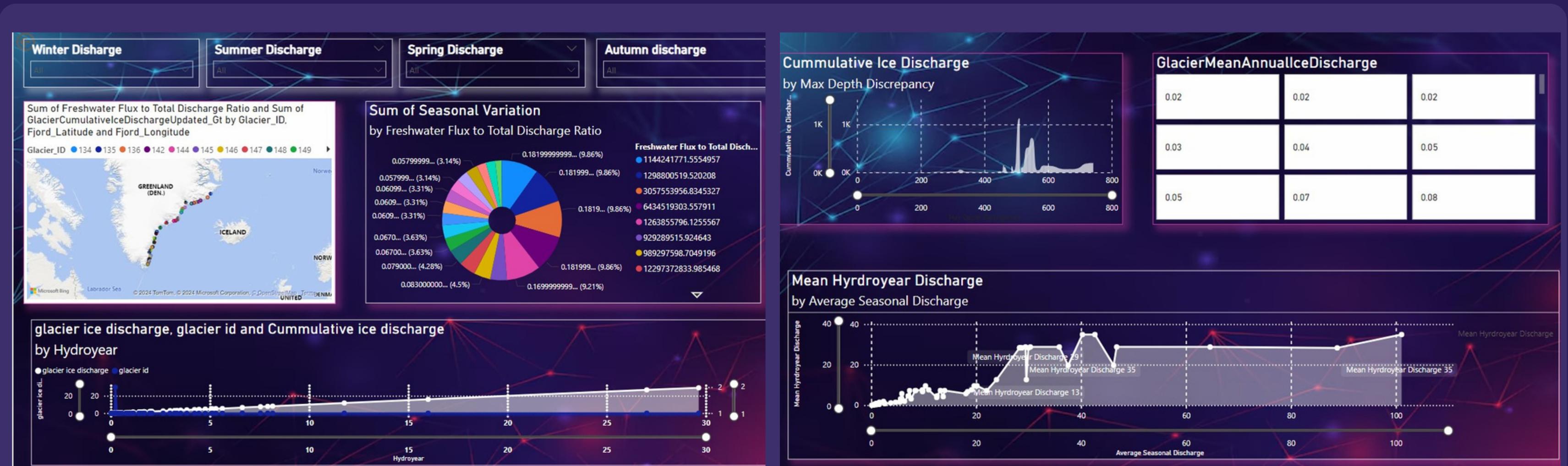
Open Data Impact:

Access to open data from space agencies provided real-time insights into the state of glaciers, enabling the development of this user-friendly dashboard. Key features include annual and seasonal discharge graphs, as well as fjord data filters, allowing for intuitive navigation and understanding of alarming environmental changes.





DASHBOARD



DASHBOARD 01

DASHBOARD 02

SUMMARY: GLACIER AND FRESHWATER FLUX ANALYSIS DASHBOARD



Freshwater Flux Ratio Map:

- Highlights glacier contributions to overall discharge along the coastline.

Seasonal Variation Pie Chart:

- Shows fluctuations in glacier discharge across seasons.

Ice Discharge Trends Graph:

- Tracks changes in glacier ice discharge over hydro years.

Cumulative Discharge by Depth Graph

- Examines ice discharge in relation to glacier bed depth.

Mean Annual Discharge Table:

- Compares average annual discharge values for different glaciers.

Hydroyear vs. Seasonal Discharge Graph:

- Analyzes seasonal impacts on glacier ice flow.



WEBSITE

Our website, The Disappearing Ice: Southeast Greenland's Glacial Crisis, tells a compelling data-driven story about the rapid loss of glacial ice in Southeast Greenland.

It features interactive dashboards showcasing satellite data insights from 2015 to 2019, highlighting glacier discharge and its connection to rising sea levels. Users can explore visualizations and track ice changes over time, as well as learn about the specific data sources we used.

Disappearing of Ice

Glaciers are more than just breathtaking landscapes; they are critical regulators of our planet's climate

[EXPLORE THE STORY](#)

WHY BELIEVE IN CHANGE?

In a world where every glacier tells a story of change, we believe that knowledge is the key to action.

By harnessing the power of open data and innovative technology, we can transform insights into impact.

Together, we have the power to inspire change and safeguard our planet for future generations—because every small action can lead to monumental shifts in our fight against climate change.