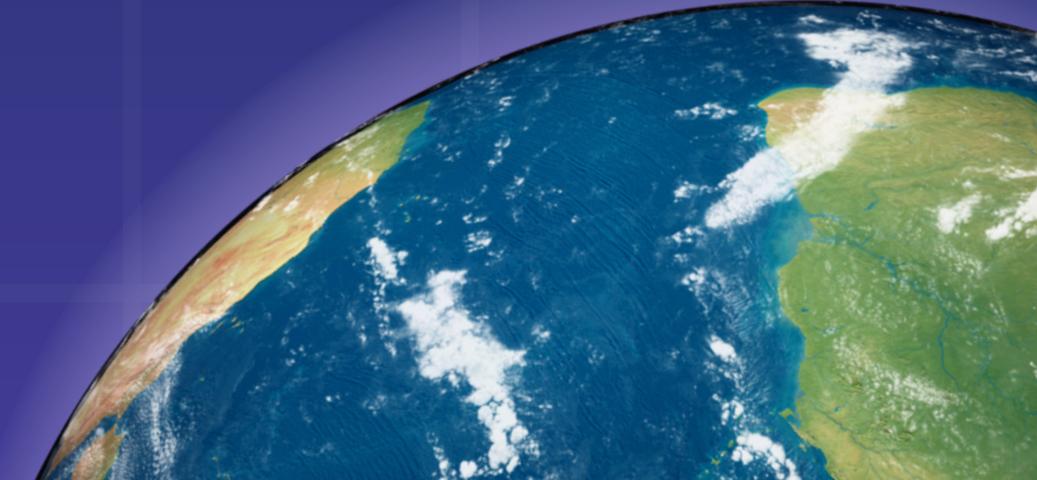


A detailed photograph of an astronaut in a white spacesuit with a reflective helmet, floating in the void of space. The suit has a small American flag patch on the shoulder. A thin white line extends from the top of the suit towards the upper left corner.

SEISMIC DETECTION ACROSS THE SOLAR SYSTEM

NASA SPACE APP CHALLENGE 2024



OUR TEAM

EARFQUAKE



ALYONA
ABAIDULINA

DATA
ANALITIC



ERNAZAR
ERMURAT

DATA
ENGINEER



ABDUGAFFAR
OMERBEK

TEAM
LEADER



DANA
DAMENOVA

DATA
SCIENTIST



ALISSULTAN
AMANKOS

MACHINE
LEARNING
ENGINEER



AMIR
ABDYKARIMOV

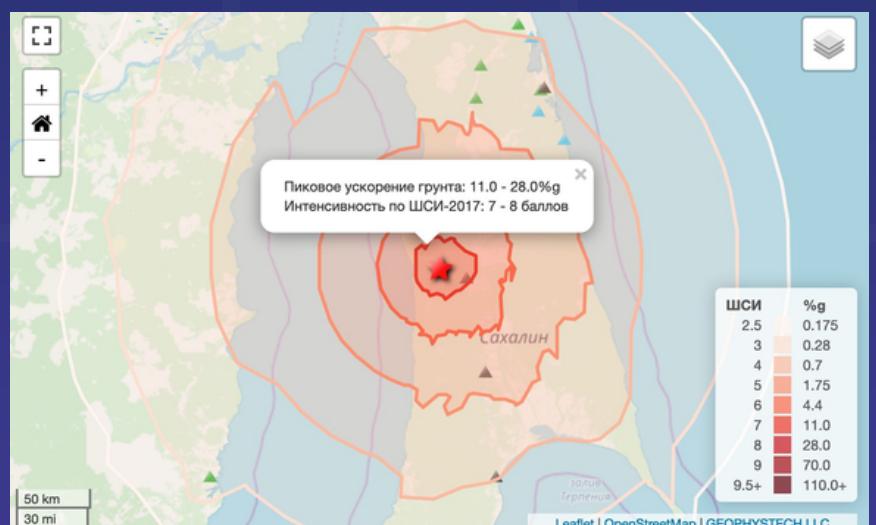
SEISMOLOGIST

PROBLEM

There is no efficient and unified system to monitor seismic activity across multiple celestial bodies in the solar system

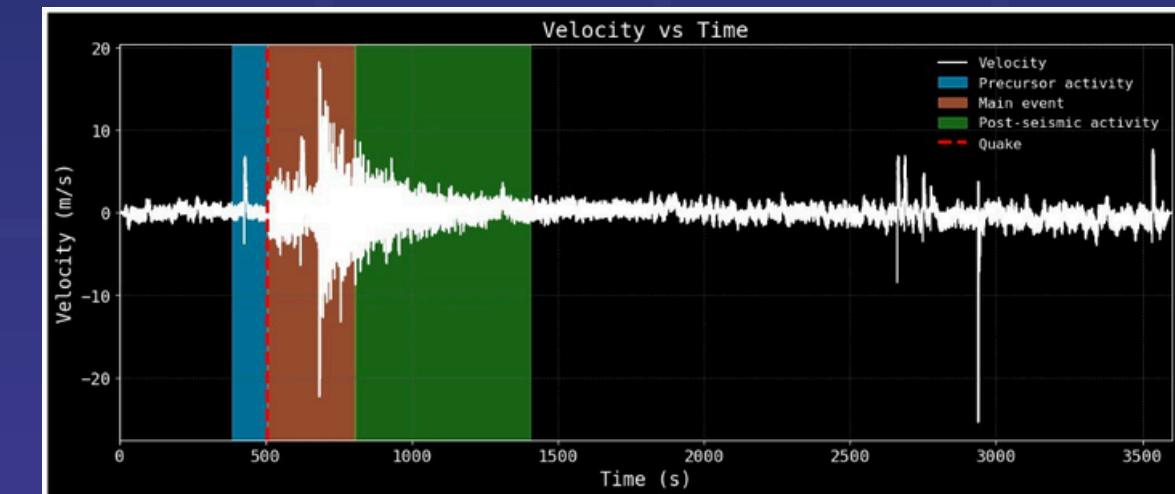
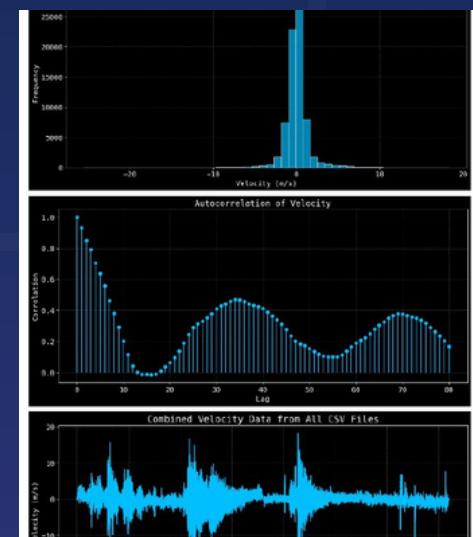
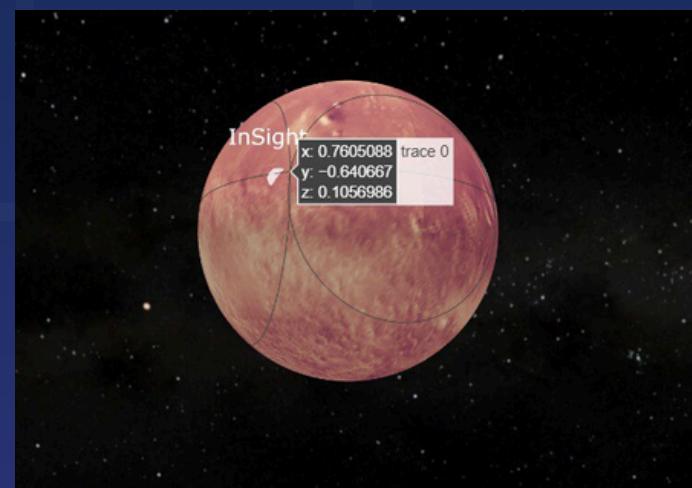
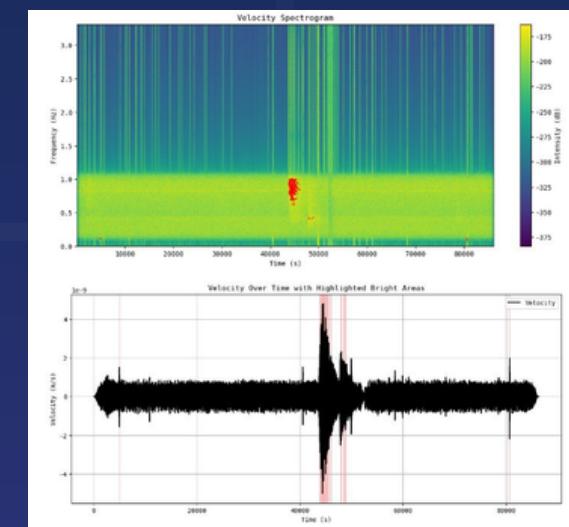
WHY IT MATTERS:

MONITORING **SEISMIC ACTIVITY** ACROSS THE SOLAR SYSTEM HELPS US UNDERSTAND THE INTERNAL STRUCTURE AND TECTONIC ACTIVITY OF CELESTIAL BODIES, WHICH IS CRITICAL FOR PLANNING FUTURE SPACE MISSIONS AND ENSURING THE SAFETY OF ASTRONAUTS.



OUR SOLUTION

A innovation platform that unifies seismic detection across planets, moons, and Earth, using open data from given NASA dataset.



USER EXPERIENCE

Seismic Detection Platform

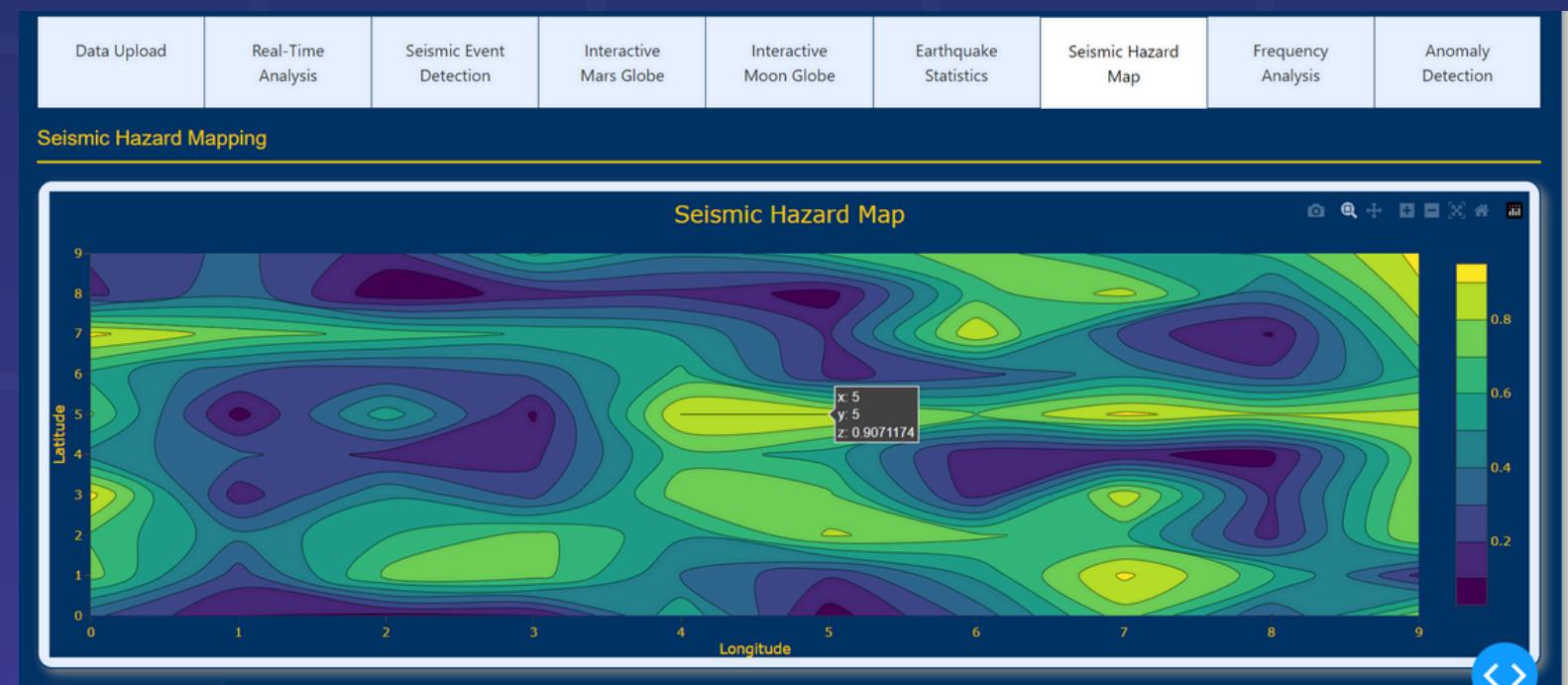
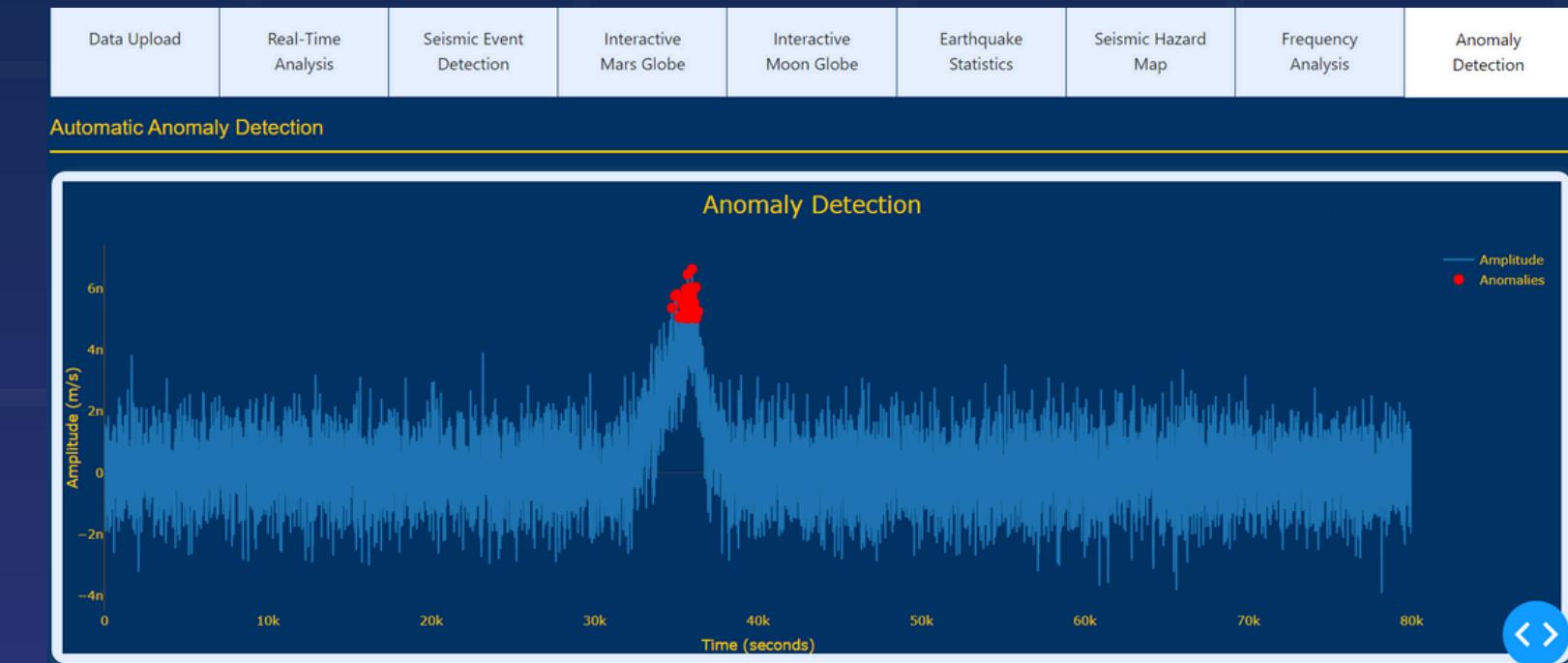
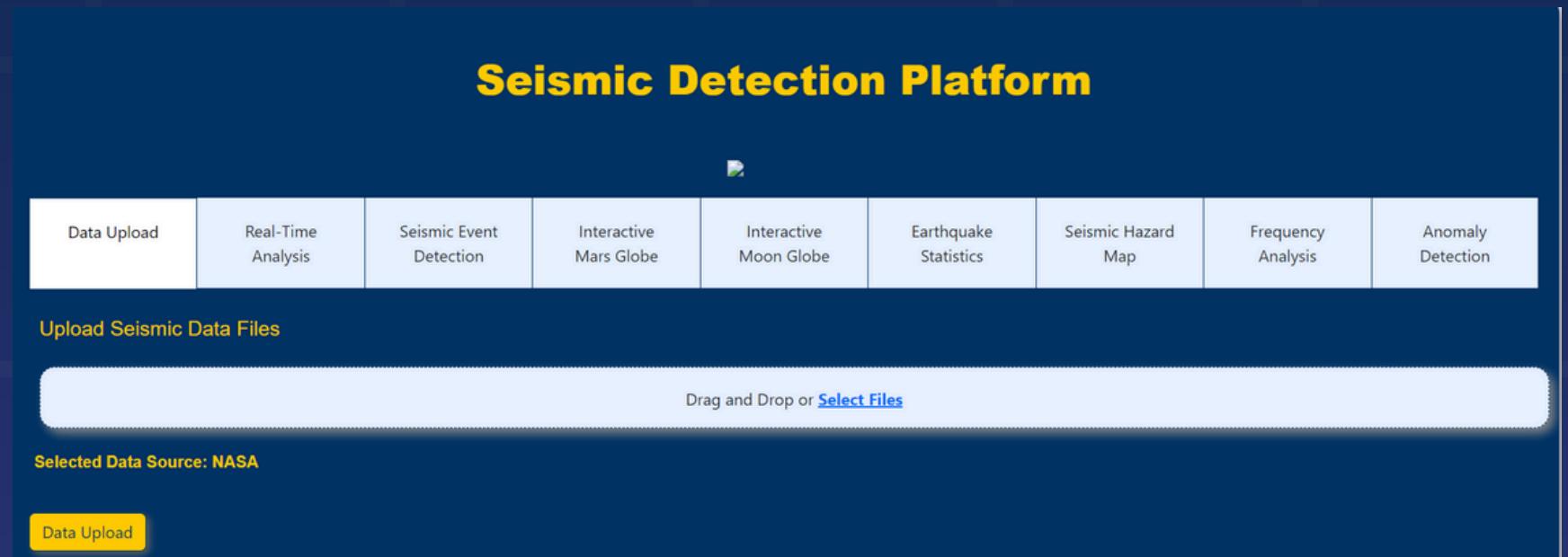
Data Upload Real-Time Analysis Seismic Event Detection Interactive Mars Globe Interactive Moon Globe Earthquake Statistics Seismic Hazard Map Frequency Analysis Anomaly Detection

Upload Seismic Data Files

Drag and Drop or [Select Files](#)

Selected Data Source: NASA

Data Upload



VALUE PROPOSITION

- Automated and rapid detection of seismic events
- Standardization of analysis for various celestial bodies.
- Intuitive interface

UNFAIR ADVANTAGE

- Open data from space agencies
- Advanced machine learning technologies
- Partnerships for enhanced data collection
- Algorithms adapted for seismic analysis on bodies with different characteristics



CHANNELS

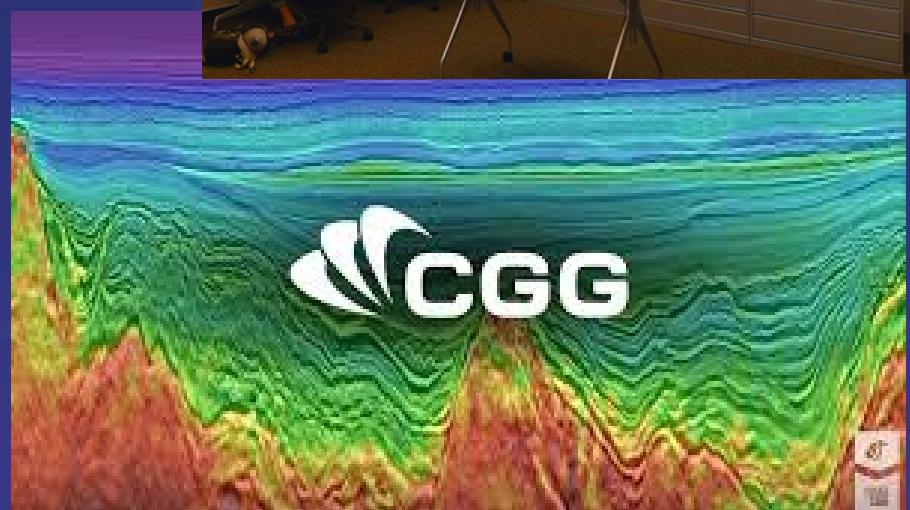
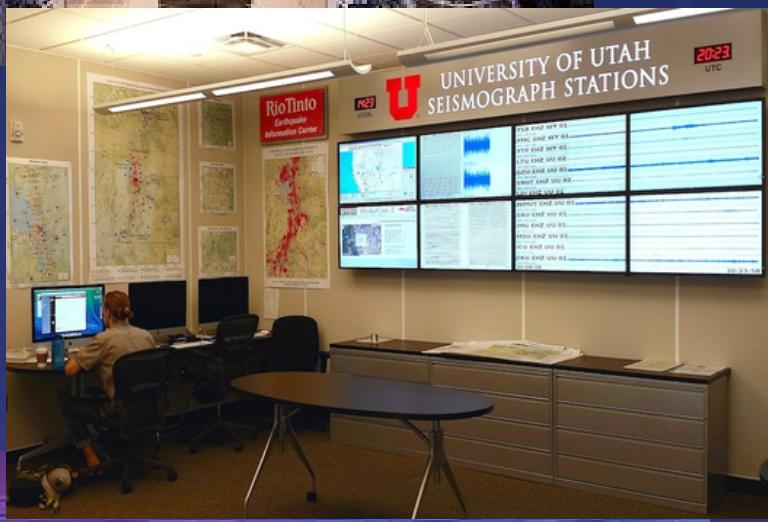
- Scientific communities.
- Cooperation with space agencies and academic institutions.
- Participation in international conferences (AGU, EGU).

CUSTOMER SEGMENTS

- Space agencies (NASA, ESA, Roscosmos, etc.).
- Researchers and scientists in the field of geophysics and planetology.
- Educational institutions



COST/REVENUE



Cost Structure

- Software Development
- Marketing and User Engagement
- Machine Learning Model Training
- User Support

Revenue Streams

- Royalties from Space Agencies
- Governmental and non-governmental organizations
- Private Space Companies(SpaceX, Blue Origin, Astrobotic, Masten Space Systems)
- Insurance Companies
- The National Science Foundation of the USA (NSF)
- Geophysical Companies(Schlumberger, Halliburton, CGG)



U.S. National
Science
Foundation

