



CHRONICLES OF

EXOPLANET

EXPLORATION

NASA SPACE APPS CHALLENGE

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ABOUT EXOPLANETS

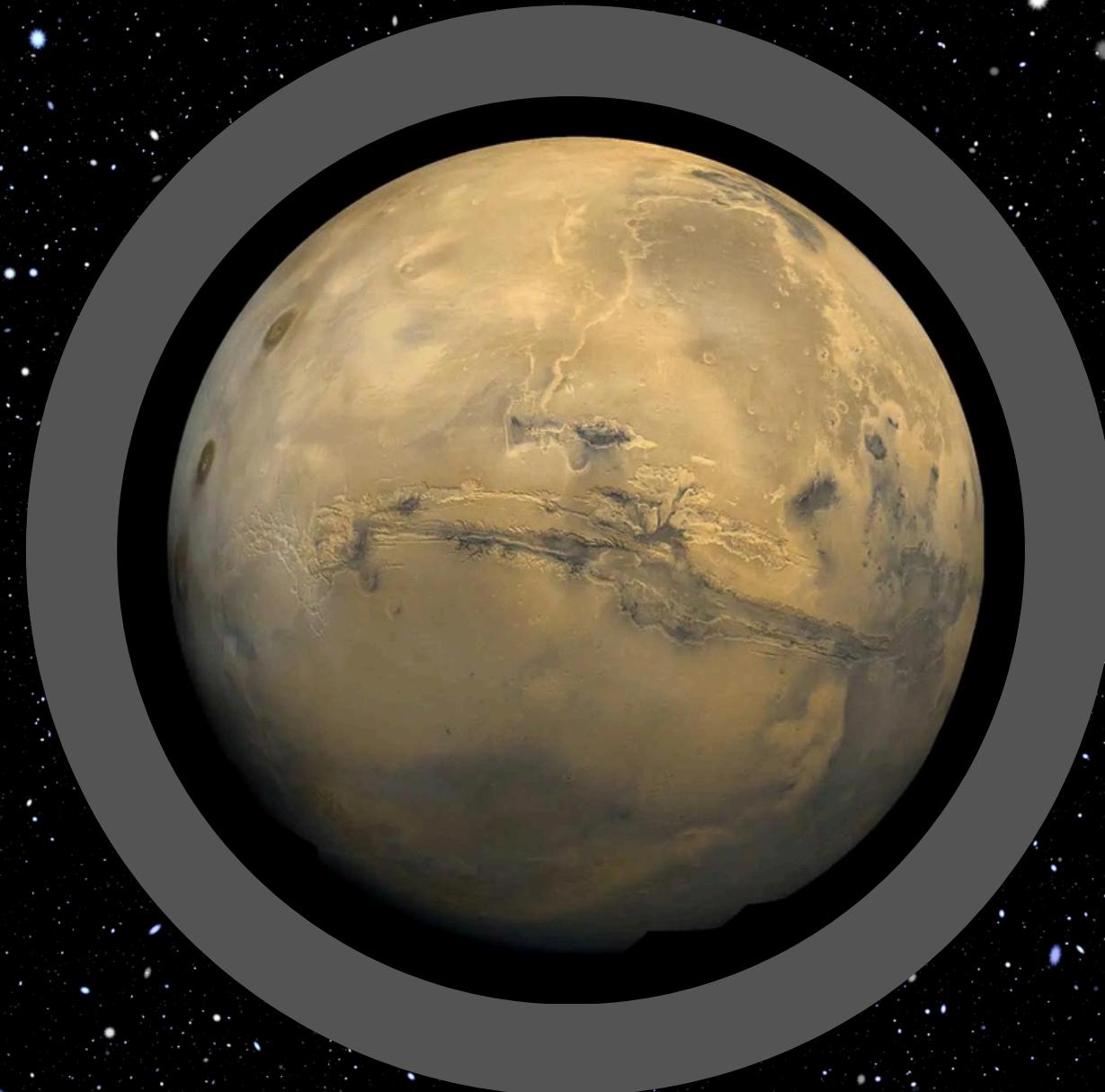
- Exoplanets are planets that orbit stars outside our solar system. They vary in size, composition, and temperature, from massive gas giants to smaller rocky worlds similar to Earth.
- Since the first confirmed discovery in 1992, thousands of exoplanets have been identified using methods like the transit method and radial velocity. These discoveries have significantly expanded our knowledge of planetary systems.
- Many of these exoplanets are inhospitable to life due to extreme temperatures, high radiation, or lack of atmosphere. However, a small number of exoplanets may have conditions suitable for life, such as moderate temperatures, the presence of water, and a stable atmosphere.



THE CHALLENGE

CHRONICLES OF EXOPLANET EXPLORATION

Exoplanet data can be complex and hard to understand, especially for students and those with limited access to educational resources. Our challenge was to simplify NASA's exoplanetary data and create an engaging, user-friendly tool that makes it easier to explore the potential for life on other planets.





OUR VISION

01

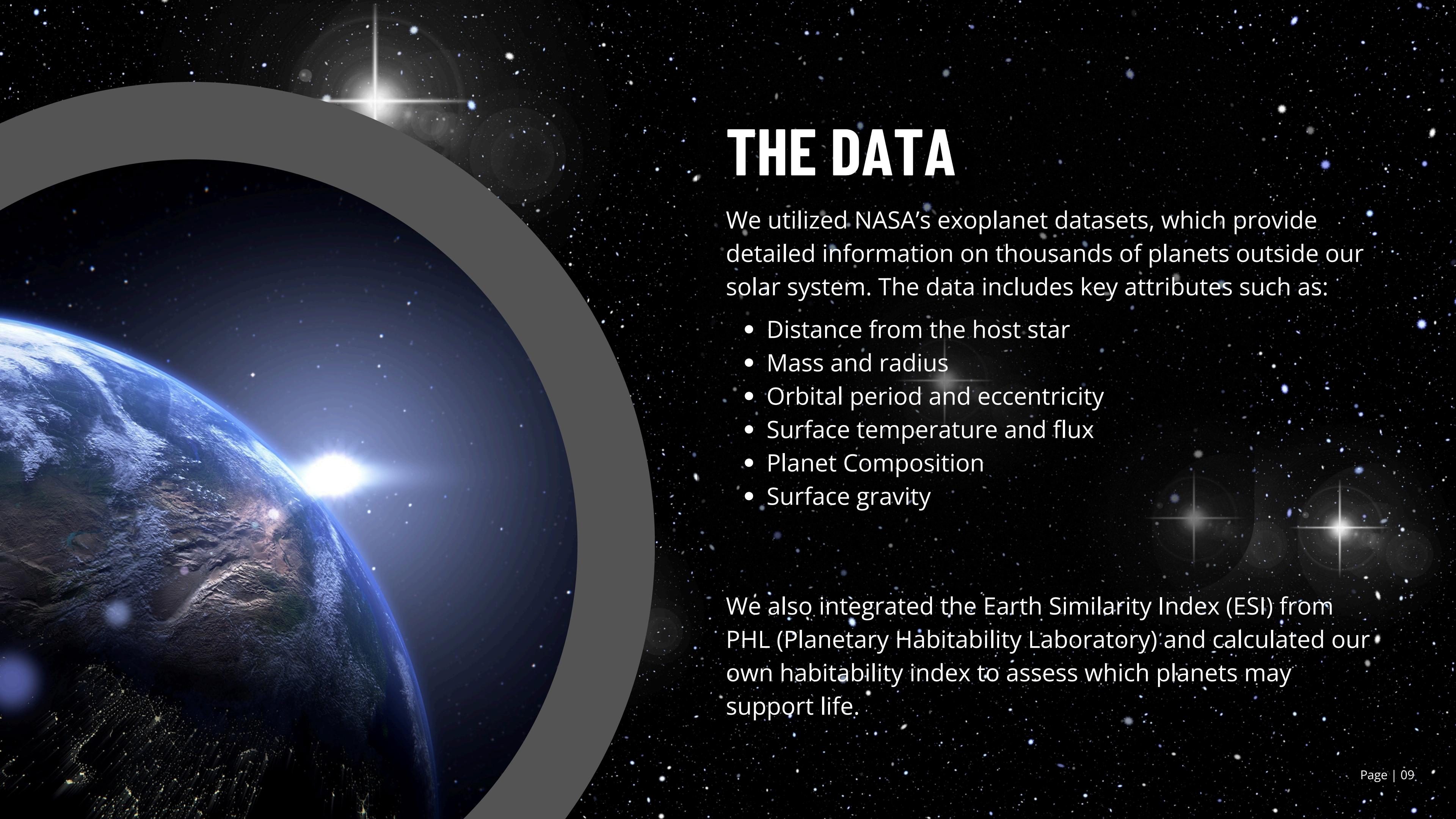
Make Exoplanet Data Easy to Understand:
Simplify complex information for everyone.

02

Encourage Exploration: Use interactive tools to spark curiosity about space.

03

Provide Access for All: Ensure learning resources are available to everyone, especially underserved groups.



THE DATA

We utilized NASA's exoplanet datasets, which provide detailed information on thousands of planets outside our solar system. The data includes key attributes such as:

- Distance from the host star
- Mass and radius
- Orbital period and eccentricity
- Surface temperature and flux
- Planet Composition
- Surface gravity

We also integrated the Earth Similarity Index (ESI) from PHL (Planetary Habitability Laboratory) and calculated our own habitability index to assess which planets may support life.