

EXOPLANET HUNTER

A N A I - R E A D Y D A T A P I P E L I N E

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The Challenge: Finding a Needle in a Haystack

Finding planets requires detecting a tiny, temporary dip in a star's brightness from noisy telescope data. This signal is extremely faint and hard to find.

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Our Solution: A Live Data Pipeline

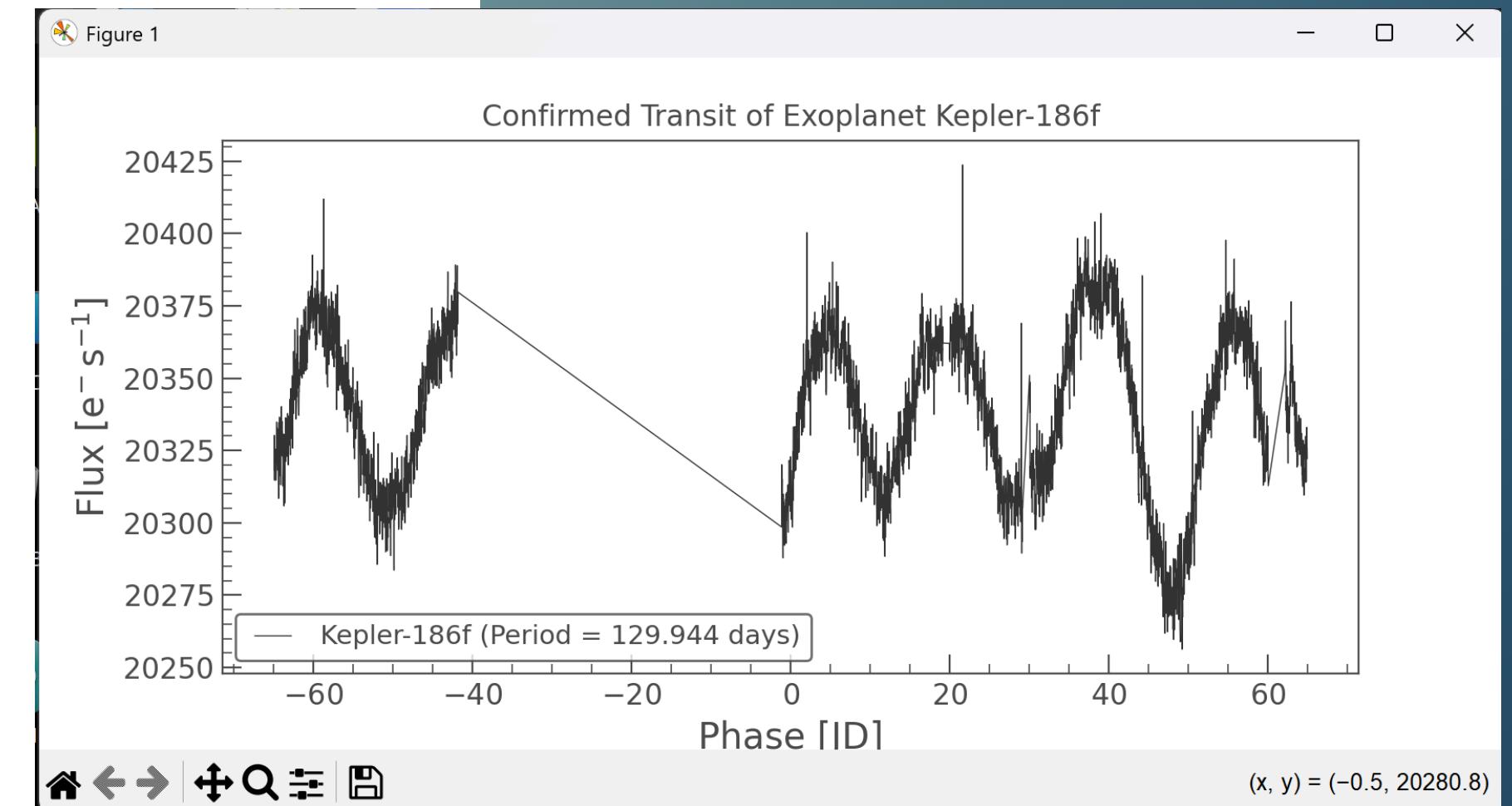
Solution

We built a Python script using NASA's `lightkurve` library to programmatically download, clean, and process real mission data. When our initial dataset was unsuitable, we pivoted to this live-demo approach to prove our method.

The Result!

Proof of Concept: Kepler-186f

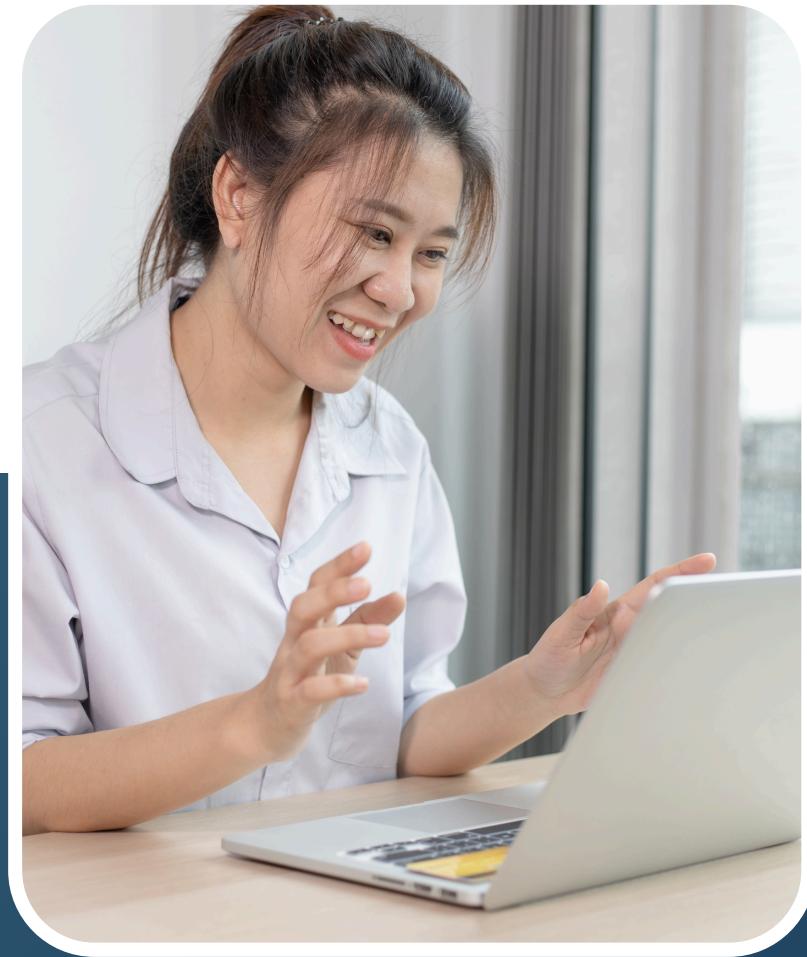
Our script successfully processed the data and clearly revealed the transit dip, creating the perfect, AI-ready data for a discovery model.



Why It Matters

A Step Toward Automated Discovery

This pipeline is a crucial first step for any AI-based search. By automating the data pre-processing, we can help scientists sift through massive datasets faster, accelerating the search for new worlds.



THANK YOU
