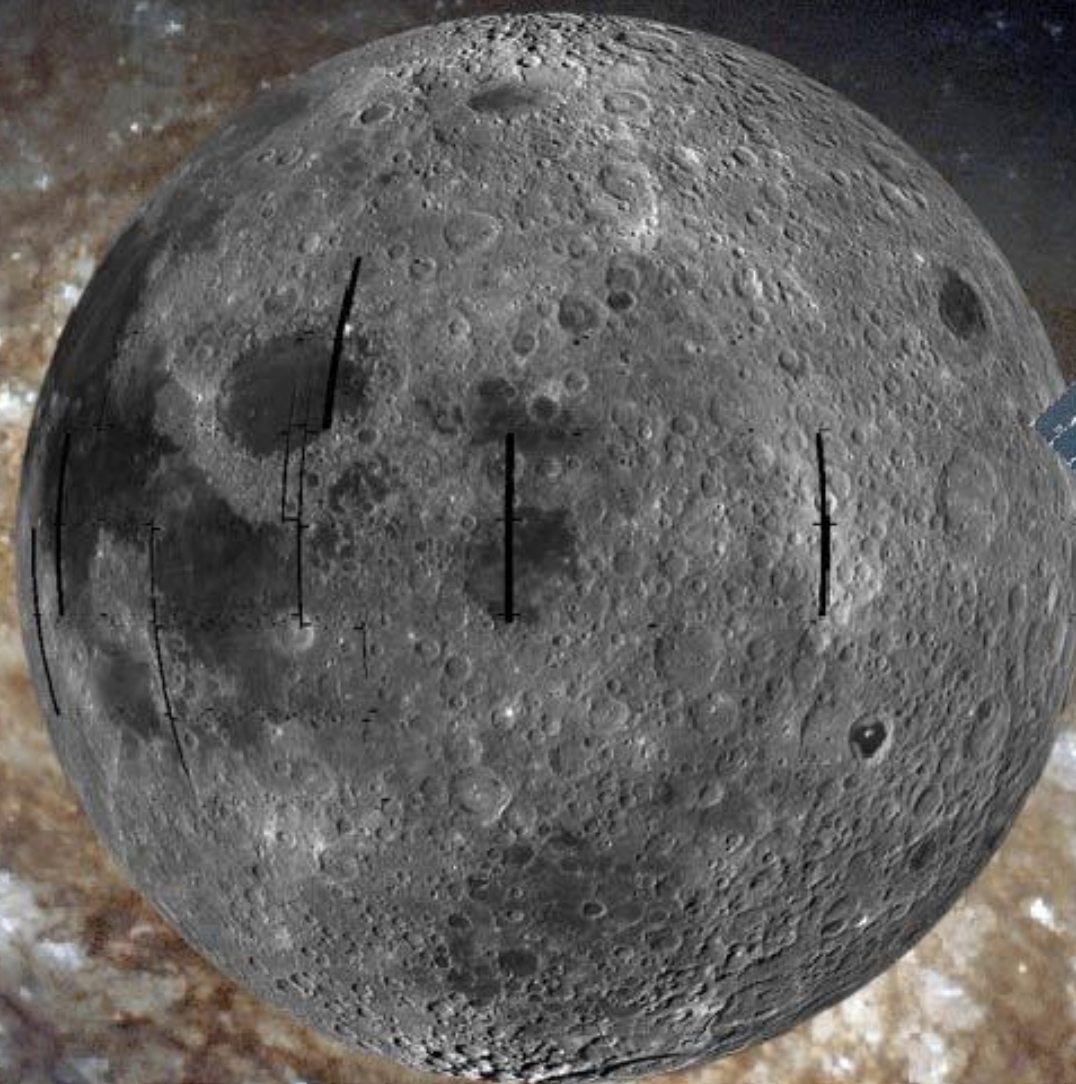




# Smart Telescope



Revolutionizing exoplanet discovery through artificial intelligence





# The Exoplanet Discovery Bottleneck

## 20+ Years of Data

Kepler, TESS, and K2 missions have collected massive datasets from space-based observations

## Manual Classification

Thousands of potential exoplanets identified through time-intensive human analysis

## Discovery Delays

Slow manual processes limit our understanding of the universe and delay breakthrough discoveries

We're drowning in cosmic data while answers to humanity's biggest questions wait in the queue.



# AI-Powered Exoplanet Classification



## Automated Analysis

Advanced ML algorithms process massive datasets instantly



## Three Classifications

Confirmed | False Positive | Candidate for further investigation



## Instant Results

From months of manual review to seconds of automated classification

CatBoost & XGBoost ensemble models deliver unprecedented accuracy in exoplanet identification



# Accelerating Discovery for Everyone



## NASA Researchers

Mission scientists gain faster insights from ongoing surveys, enabling real-time discovery prioritization and resource allocation.



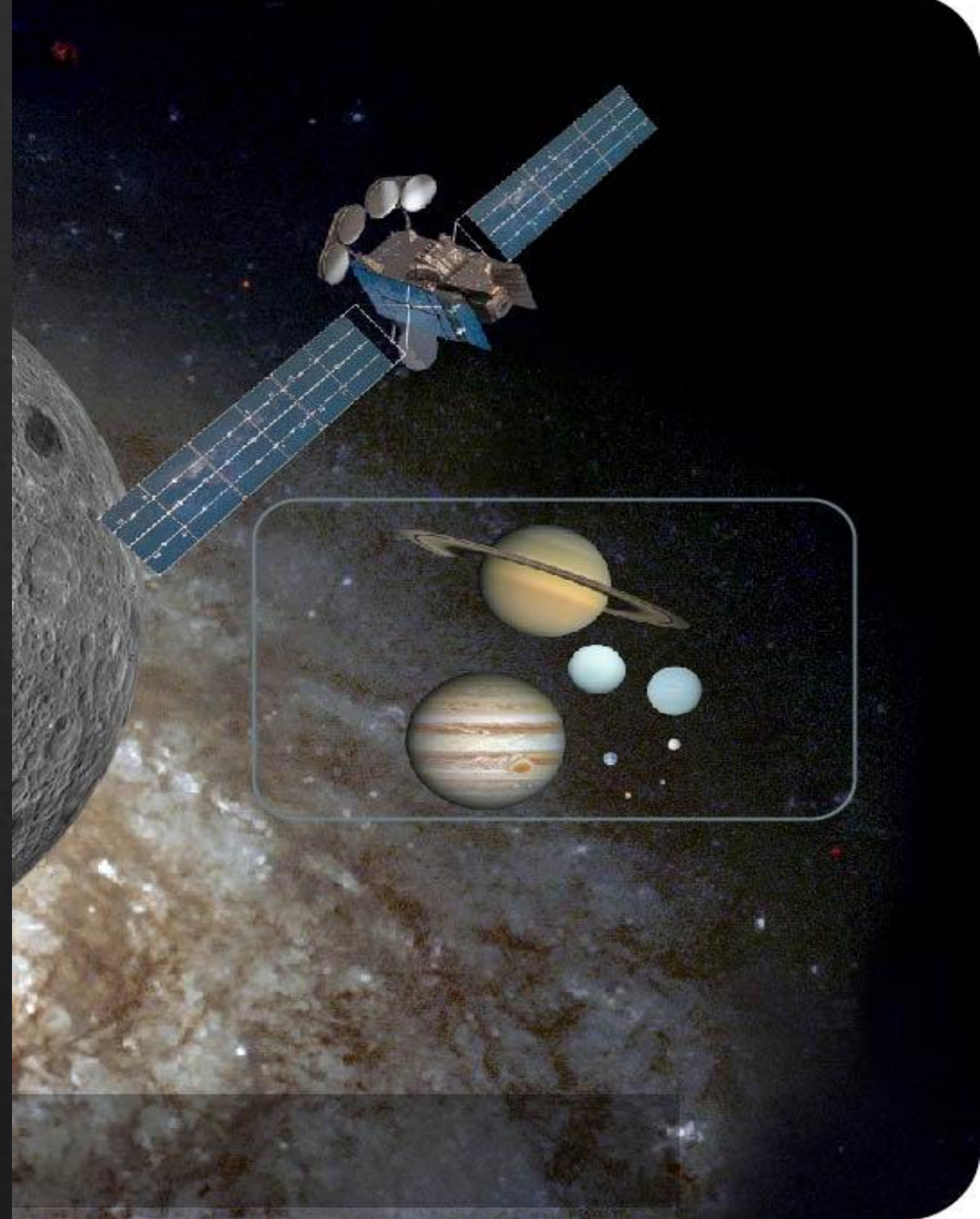
## Educational Institutions

Universities worldwide can access advanced classification tools, democratizing exoplanet research capabilities.



## Future Missions

Automated systems support next-generation telescopes like James Webb, maximizing scientific return on investment.



What took expert teams weeks of careful analysis now takes our system minutes to classify with confidence





**smarttelescope**

AI/ML EXOPLANET DISCOVERY

NASA ASTPHYSYCICS DIVISION

# Why Our Approach Wins

## Proven Data Foundation

Built on 20 years of validated classifications from successful space missions

## Dual-Model Architecture

CatBoost + XGBoost ensemble delivers robust, accurate predictions with built-in redundancy

## Intelligent Classification

Three-tier system includes candidate category for nuanced scientific investigation

## Mission Agnostic

Cross-platform compatibility works across Kepler, TESS, K2, and future telescope data



# From Proof-of-Concept to Universe-Scale

## Phase 1: Validation Complete

Model proven on historical datasets with exceptional accuracy metrics

1

## Phase 2: Real-Time Integration

Deploy with ongoing TESS and future mission data streams for live classification

2

## Phase 3: Next-Generation Expansion

Scale to James Webb Space Telescope and upcoming exoplanet survey missions

3

## Vision: Industry Standard

Become the global classification tool for automated exoplanet discovery

4

Our roadmap transforms decades of human expertise into tools that accelerate the next era of cosmic discovery.

# Join Us in Discovering New Worlds

Smart Telescope Team | Revolutionizing exoplanet discovery through AI

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