Embiggen Your Eyes!

An Interactive NASA Image Exploration Platform

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In collaboration with **NASA**

Problem: Exploring NASA's massive image datasets can be complex and inaccessible to the public.

- NASA collects megapixel, gigapixel, and terapixel of high-resolution images, but they're complex, raw, and hard to explore.
- Students, educators, and the public often lack tools to see and understand these datasets.
- We needed a way to make this data interactive, educational, and beautiful.

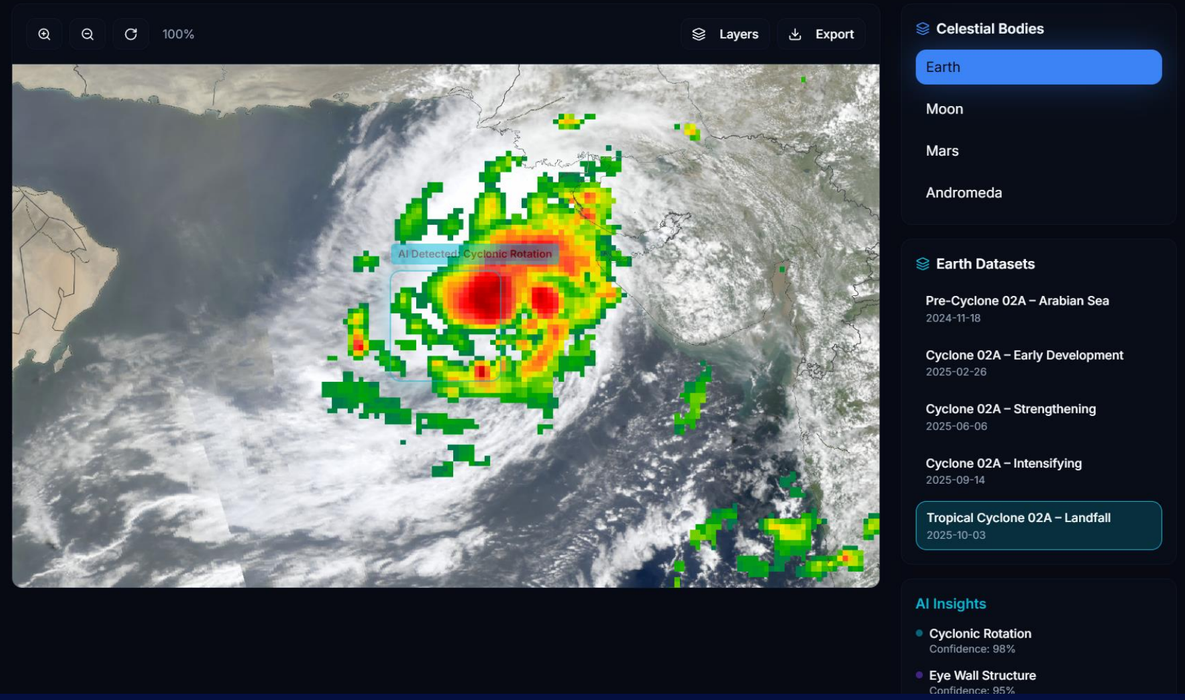
Users often struggle to:

1. Visualize changes over time (storms, terrain shifts)
2. Interact with planetary datasets easily
3. Identify and annotate interesting patterns

"NASA data: powerful, but not easy to explore visually."

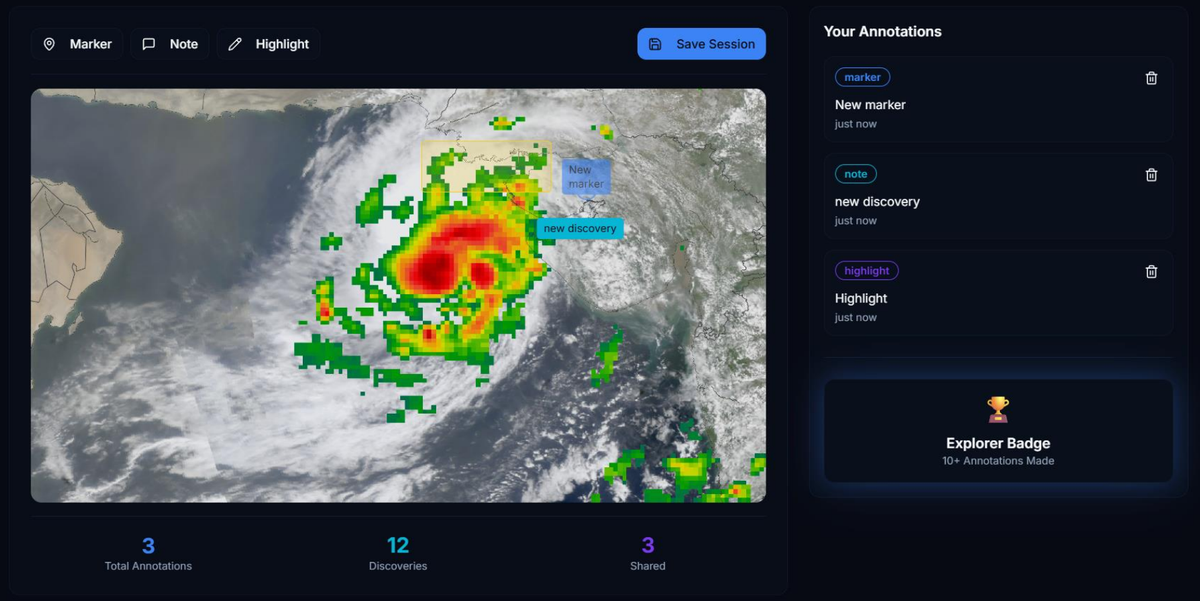
Interactive Image Explorer

Zoom, pan, and explore high-resolution NASA imagery



Annotation & Discovery Tools

Mark, annotate, and share your discoveries



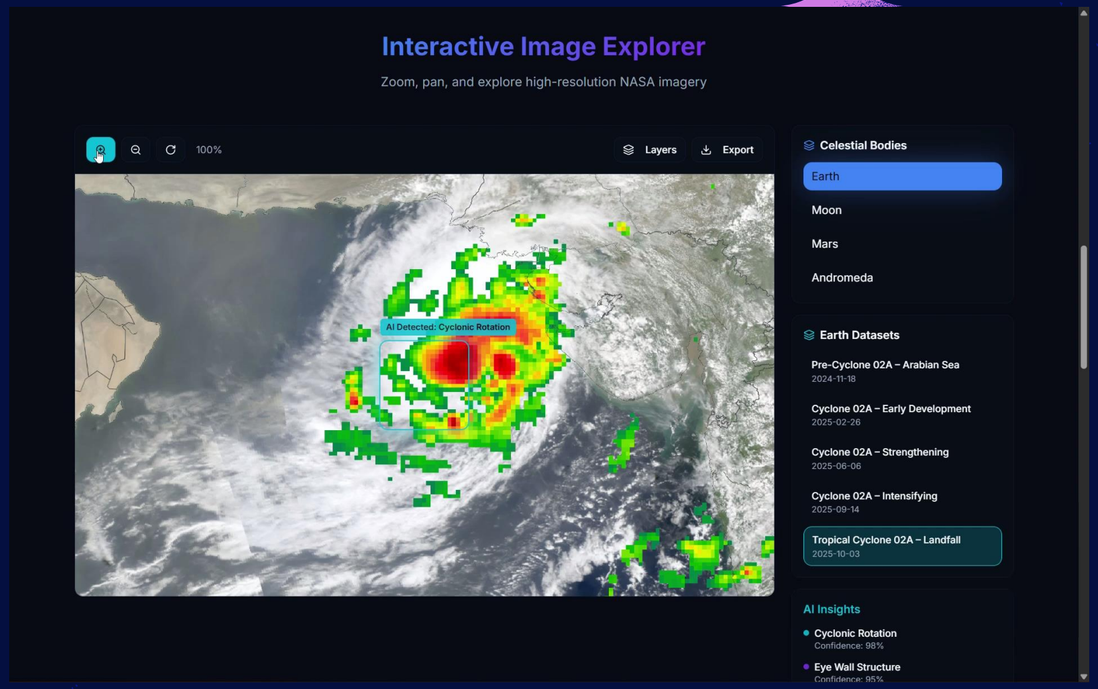
The Solution: “Embiggen Your Eyes!

- A web platform that turns NASA’s images into an interactive experience. Users can:
- **Zoom, pan, and explore** high-resolution images
- **Add markers and notes** using annotation tools
- **Watch time-lapse** transformations (like Cyclone 02A)
- **Discover AI-highlighted patterns** automatically

Key Features

Interactive Explorer

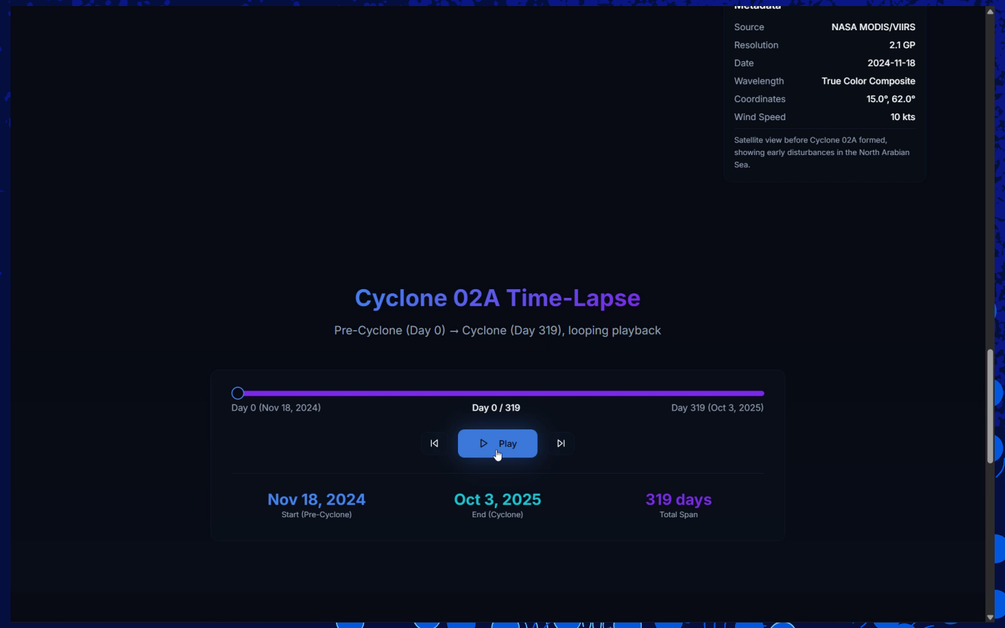
Real-time zoom, drag, and layer overlays



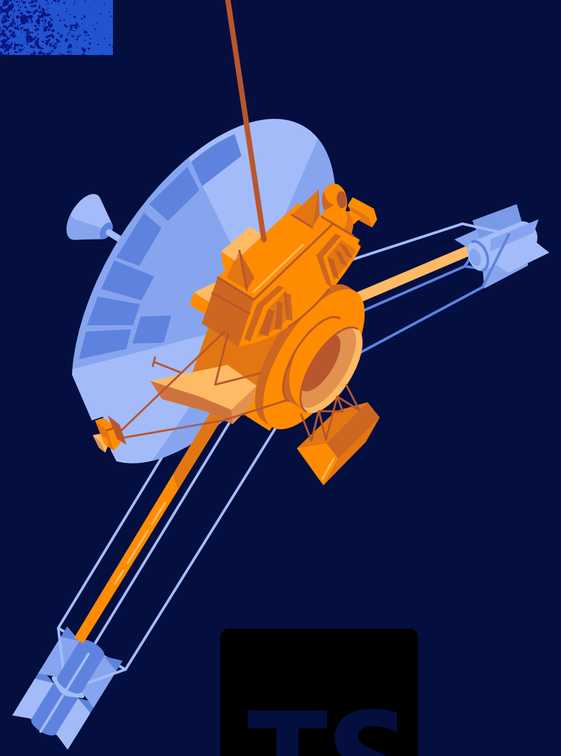
Timelapse Player

Watch Cyclone 02A evolve from Day 0 → Day 319

Detects and labels patterns like storm bands or eye walls



Tech Stack



Languages: TypeScript (.tsx & .ts), JavaScript (config), HTML, CSS (Tailwind)
Frameworks & Tools: React + Vite, Node.js, npm, Lovable.dev (UI mockups)
Dataset Source: NASA MODIS / VIIRS Earth Observation
AI Assistance:
GitHub Copilot (for code suggestions)
ChatGPT (for planning & documentation)
All logic and design decisions by me.

https://simpleicons.org

Impact & Accessibility

"Bringing the universe closer to everyone"

- **Benefits:**
- Makes space imagery **accessible and educational**
- Helps users **visualize real planetary changes**
- Inspires **curiosity and learning** in science and exploration
- Designed for **anyone, no scientific background needed**

Demo

"Discover. Annotate. Embiggen your view of the universe"

Future Enhancements:

- Real-time NASA API integration
- Global weather & space-event tracking
- 3D planetary exploration

NASA. "Stars." Accessed 19 February 2024, https://science.nasa.gov/universe/stars/.