



# Lunar Rocks!



Hovhannes Babayan, Steven Chen, George Ewest, Hober Granados, Jaden Lazo, Jacky Man, Barnabas Novak, Nathan Rodriguez-Lynn, Allen Tamrazian, Jordy Ye Cao

JPL Liaisons : Shan Malhotra, Mike Rueckert, Richard Kim, Natalie Gallegos, Eddie Arevalo

Faculty Advisor : Dr. David Krum

## BACKGROUND

Lunar Rocks!, previously known as VIPER Rocks!, is a web-based platform designed for NASA's Jet Propulsion Laboratory (JPL) that encourages everyone to contribute to space missions by analyzing images from the South Pole of the Moon revealing features never seen before.

**How?** involving citizen scientists to scout, size and classify distribution of rocks found on the moon

**Why is that important?** By analyzing the data collected by VIPER, scientists can gain insight into the Moon's formation and evolution and provide crucial information to guide future missions

## OBJECTIVE

Lunar ROCKS! is a web application designed to engage citizen scientists in the VIPER mission. Users can contribute to our understanding of the Moon's surface by participating in the following tasks:

### 1. Scouting:

Split up images to help sizing and classification

Organize rocks for further analysis

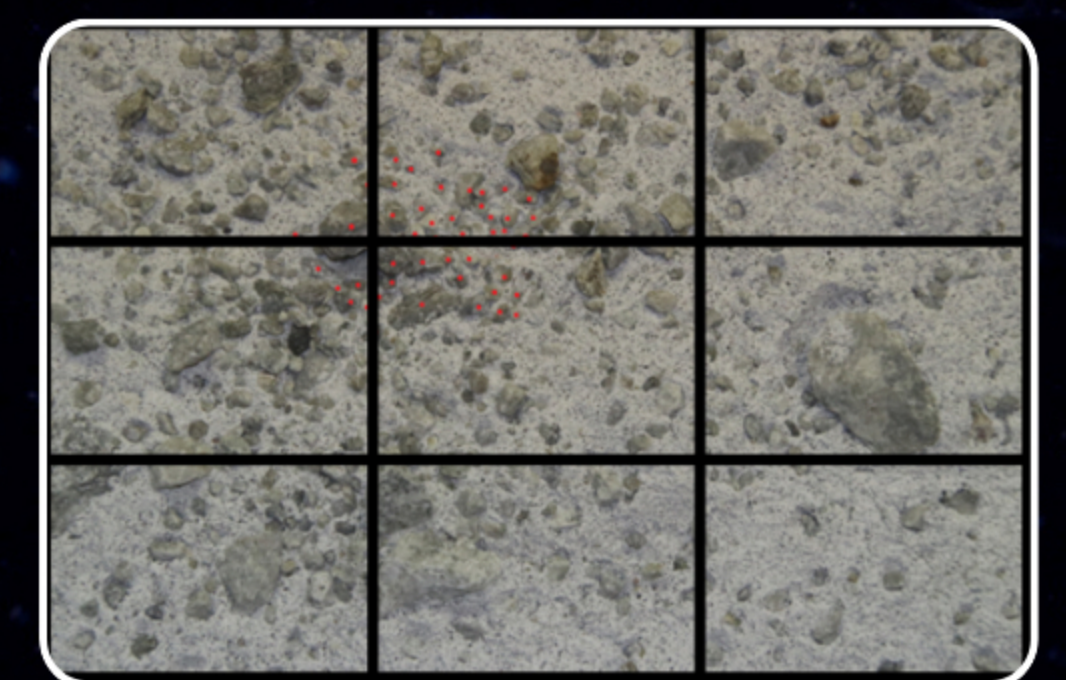
### 2. Sizing:

Accurately measure rock dimensions with drawing tools

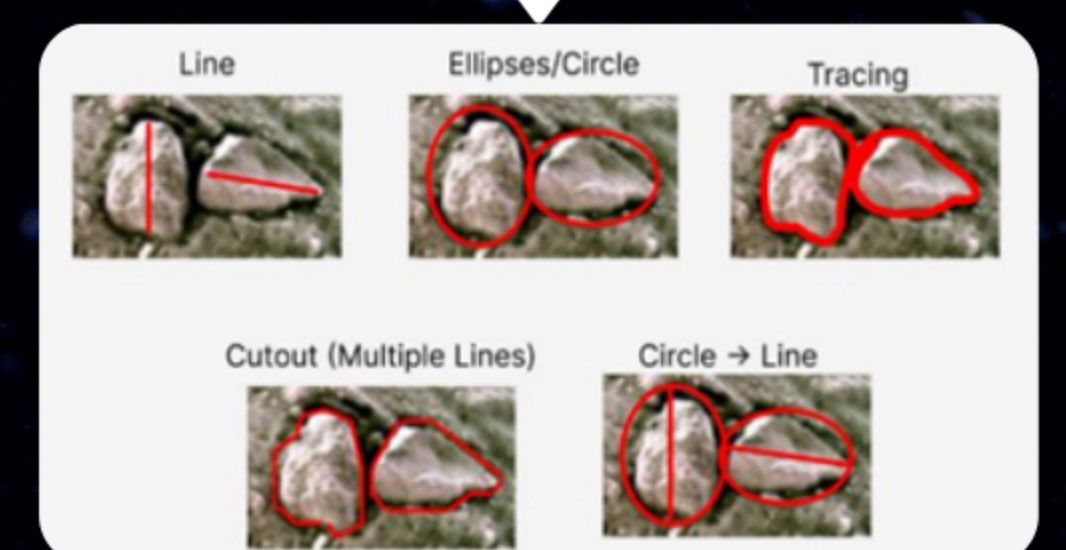
Ensure detailed data collection for comprehensive study

### 3. Classification:

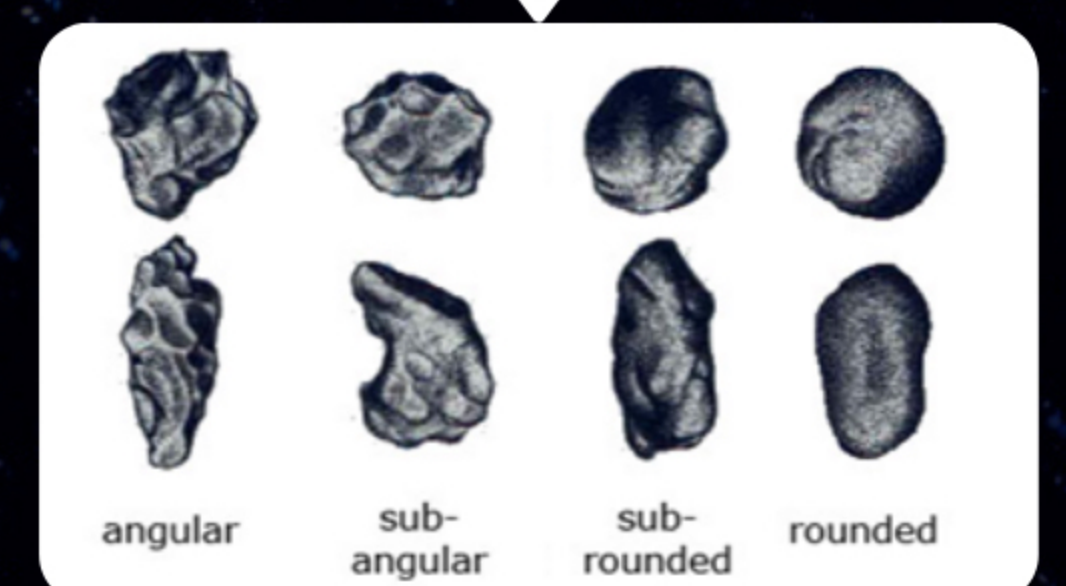
- Identify and classify rocks into 6 distinct categories
- Leverage scientific criteria for accurate categorization



Scouting

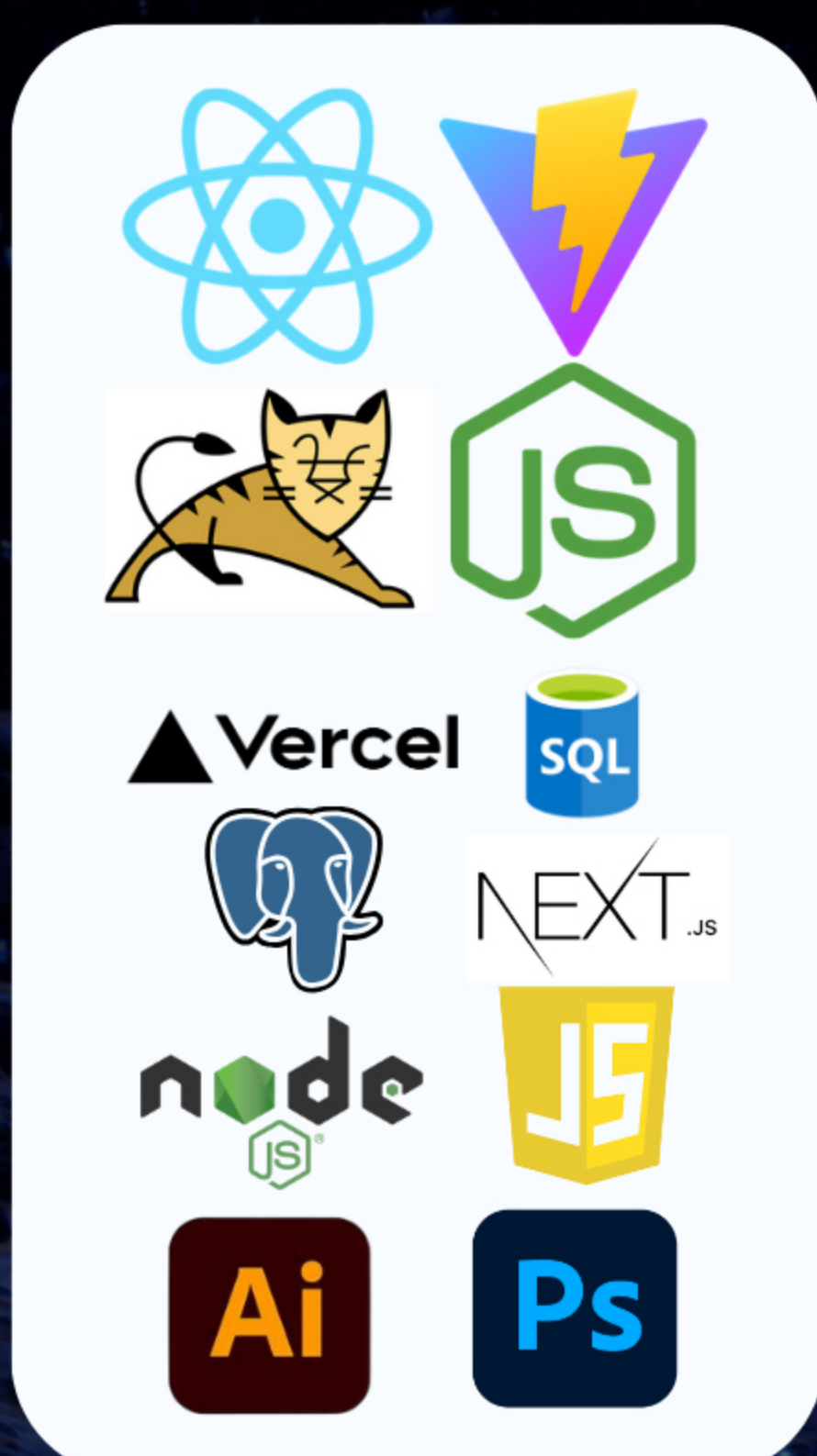


Sizing



Classifying

## TECHNOLOGIES

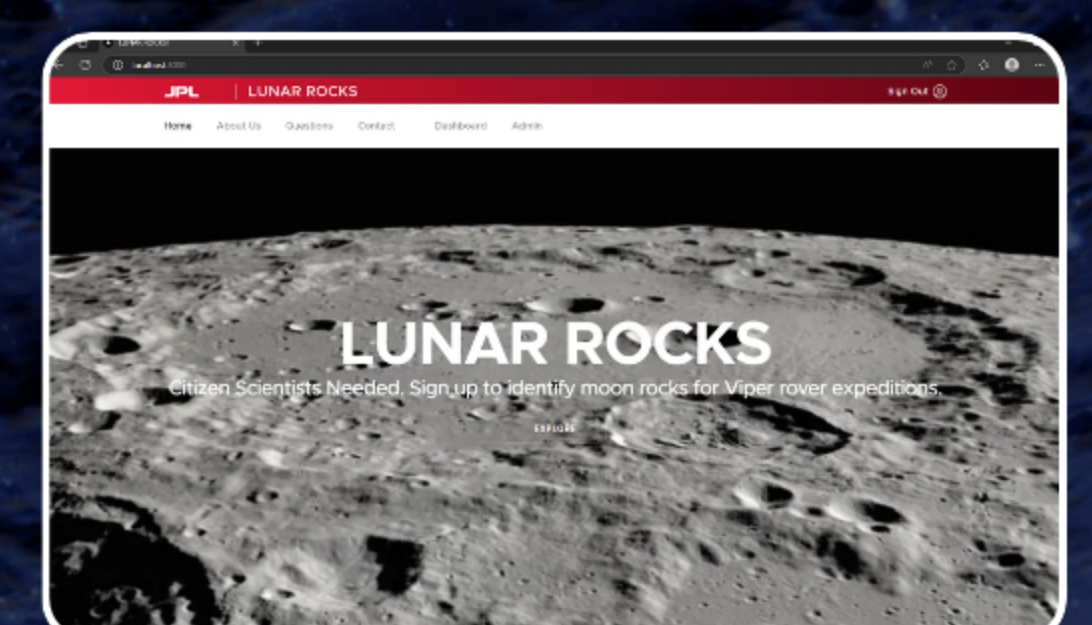


## WHY PARTICIPATE?

- Aid Mission Navigations:** Your rock classifications help identify potential hazards
- Enhance Scientific Research:** The data you provide improves the understanding of lunar geology, supporting future missions
- Be Part of Lunar Exploration:** Your discoveries directly influence mission planning, making you a part of NASA's exploration team
- Shaping New Generation:** Inspire the newer generations, future scientists, astronauts, enthusiasts and possibly others

## FUTURE APPLICATIONS

The aggregated data from the combined efforts of citizen scientists using Lunar Rocks! will be analyzed by researchers to unveil crucial information about the composition and formation of the Moon's rocky terrain.



**BE PART OF THE MISSION, BE PART OF HUMAN HISTORY!**

DEPARTMENT OF COMPUTER SCIENCE COLLEGE OF  
ENGINEERING, COMPUTER SCIENCE, AND TECHNOLOGY