Title: Postdoctoral Research Scientist

Employee Type: Full-Time
Hours Per Week: 40
Overtime: No
Appointment Period: Initially for one year; potentially renewable for two additional years depending on the availability of funding.
Travel: Some travel required.
Relocation Covered: No
Desired Start Date: May 15, 2021 (negotiable)
Annual Salary: $53,000 - $59,000, depending on Experience and Location
Other Benefits: medical and dental insurance, life insurance, disability, retirement plan, plus more

PSI will not sponsor applicants for work visas.

Post Date: Starting April 1, 2021
Contact Information: PSI Human Resources, Email: hr@psi.edu

Summary Job Description:
Applications are invited for a Postdoctoral Research Scientist to work with Dr. R. Aileen Yingst in the sedimentologic and stratigraphic analysis of deposits in Jezero crater, and elsewhere on Mars. Dr. Yingst is a Co-Investigator on Mars 2020’s SHERLOC instrument, an arm-mounted fluorescence and Raman spectrometer coupled with a hand-lens scale resolution pair of RGB cameras (ACI and WATSON). The successful candidate will be expected to focus on analysis and interpretation of the fine-scale texture of rocks, grains, outcrop and unconsolidated targets through examination of WATSON images (WATSON acquires images at better than 20 µm/pixel in RGB color), in combination with other M2020 instruments. The successful candidate will work collaboratively with Dr. Yingst to draw connections from the fine-scale data derived from WATSON to the broader analysis of rover-and orbital-derived images to reconstruct the local and regional geologic history of Jezero crater.

Responsibilities include:
- Characterize grain-scale textures and fabrics of rocks in the Perseverance rover workspace
- Link grain-scale textures and fabrics with rover-and orbital-scale understanding of rock units
- Characterize and map geologic deposits using rover and orbital data
- Construct facies maps to understand paleoenvironment and geologic history of deposition
- Construct models of depositional systems to reconstruct their evolution
- Apply terrestrial Earth analogs to interpretation of Mars data
- Assist Dr. Yingst with rover science team operations
- Work with Mars 2020 team members in integrating data analysis and interpretation
- Work within a cross-disciplinary team and attend regular team meetings and telecons (typically aligned to California (USA) time zone (PDT/PST)
- Communicate research results at international conferences and publish in high-ranking international journals.
Required Qualifications:
• Ph.D. in planetary science, earth science, or related field.
• Demonstrated ability to publish in peer-reviewed journals.
• Background in sedimentology and stratigraphy, and/or planetary geology.
• Geological field experience, particularly in sedimentology and stratigraphy is advantageous.
• Experience in analysis of orbital or rover-derived imagery is a plus.
• Ability to work in a collaborative, cross-disciplinary way.

To apply for the position:
If you are interested in applying for this position and you meet the required qualifications for the opening, please submit the following documents to hr@psi.edu:
• A cover letter that substantially addresses your interest and qualifications for this position.
• CV
• Optional: one relevant publication
• The names of three references familiar with your work.
• Completed application and Voluntary Self-Identification form (can be found on www.psi.edu or by sending a request to hr@psi.edu).

Planetary Science Institute
Human Resources
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Email: hr@psi.edu

PSI is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or status as a protected veteran, or any other characteristic protected by law.

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