SUMMER 2016 DIGITAL ROCKS **GRADUATE RESEARCH EXPERIENCE**

PROGRAM DATES: June 1- September 1, 2016

We are seeking a self-motivated and responsible graduate student to conduct research and development to enhance capabilities for remote, interactive and collaborative image analyses for the Digital Rocks Portal.

The Digital Rocks Portal (www.digitalrocksportal.org) is a data portal for fast storage and retrieval of images of varied porous micro-structures. It has the purpose of enhancing research resources for modeling/prediction of porous material properties in the fields of Petroleum, Civil and Environmental Engineering as well as Geology. This platform allows managing and preserving available images of porous materials and experiments performed on them, and any accompanying measurements (porosity, capillary pressure, permeability, electrical, NMR and elastic properties, etc.) required for both validation on modeling approaches and the upscaling and building of larger (hydro) geological models.

DURING THIS INTERNSHIP THE STUDENT WILL:

- Work with software developers and with information and petroleum engineering scientists at TACC and at the Department of Petroleum Engineering at The University of Texas at Austin
- Achieve capabilities that will allow users of the portal to visualize and conduct image analysis remotely individually or collaboratively
- Learn about and implement fundamental imaging data visualization, sharing and analysis functions that enable data reuse
- Build in the context of a distributed architecture that spans various High Performance Computing Resources and technologies
- Experiment with advanced visualization techniques, advanced image analysis methods and parallel computing

APPLICATION & SELECTION

Online applications will be accepted until April 1, 2016 for priority consideration. Selection and notification will occur no more than two weeks after the close of the application site.

APPLY ONLINE: https://goo.gl/pz2Xaz

CRITERIA FOR STUDENT APPLICATION

- Currently enrolled graduate student
- U.S. citizenship or permanent residency

FOR MORE INFORMATION CONTACT

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MINIMUM OUALIFICATIONS:

Student needs to have most of the following skill sets:

- Web Programming (HTML5, Javascript, CSS)
- Pvthon
- **RESTful Web Services / AJAX** •
- Linux
- Shell Scripting

DESIRED QUALIFICATIONS:

- Experience with Diango
- Experience in Imaging and **3D Visualization with Paraview**
- Websockets
- VNC
- Interest and/or Experience in **Parallel Computing**
- Experience with Docker

SCHOLARS STIPEND

Participants will receive a stipend for work, travel stipend, and housing at The University of Texas at Austin.



The Digital Rocks Portal is funded by a grant from the National Science Foundation EarthCube Grant 1541008.