



# RICE UNIVERSITY

## **Postdoctoral Researcher: Computational Subsurface Fluid Flow for Energy Transition**

### **Department of Earth, Environmental, and Planetary Sciences, Rice University**

We are seeking a highly motivated postdoctoral researcher with a strong background in computational fluid dynamics to join our research group. The role involves developing and performing numerical modeling for subsurface flow processes and reactive transport in porous media, particularly for geologic carbon and energy storage.

#### **Required qualifications:**

- Ph.D. in Geoscience, Petroleum Engineering, Chemical Engineering, or closely related field. The candidate must have completed all Ph.D. requirements by commencement of the appointment and be within 5 years of completion of the Ph.D.
- Strong programming skills in C++, Python, Fortran, etc.
- Experience in computational methods such as Lattice Boltzmann Method (LBM) and Finite Volume Method (FVM)
- Proficiency in computational tools (e.g., OpenFOAM, COMSOL, TOUGH, CMG, or similar) for multiphase flow and reactive transport modeling
- Familiarity with geochemical modeling software
- Experience in microfluidic experiments is a plus
- Excellent written and oral communication skills, with a track record of research publications

#### **Application process:**

Interested candidates should submit the following materials, as a single PDF:

- 1- A cover letter summarizing your research experience and interest in the position
- 2- A CV detailing academic background, research experience, and publications
- 3- Contact information for **three** references

Please submit your application materials to [sahar.bakhshian@rice.edu](mailto:sahar.bakhshian@rice.edu) with the subject line "Postdoctoral Researcher: Computational Subsurface Flow". Review of the applications will begin immediately. To receive full consideration, all required application materials must be submitted. Incomplete applications will not be fully considered. The start date is flexible. The salary will commensurate with experience. The contract will be initially for 1 year and is renewable for up to 2 years, based on performance and the availability of funding.

*Rice University is located in Houston, Texas, USA and is a private, coeducational, nonsectarian university that aspires to path-breaking research, unsurpassed teaching, and contributions to the betterment of our world. Rice fulfills this mission by cultivating a diverse community of learning and discovery that produces leaders across the spectrum of human endeavor.*

*Rice University is an Equal Opportunity Employer with commitment to diversity at all levels, and considers for employment qualified applicants without regard to race, color, religion, age, sex, sexual*

*orientation, gender identity, national or ethnic origin, genetic information, disability or protected veteran status. We encourage applicants from diverse backgrounds to apply.*