The University of Texas at Austin
Dell Medical School

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Department of Neurology

WILLERSON CENTER
FOR CARDIOVASCULAR
MODELING & SIMULATION

POST-DOCTORAL FELLOW
IN NEUROVASCULAR MECHANICS

The Department of Neurology, Dell Medical School, and the James T. Willerson Center for Cardiovascular Modeling and Simulation, Oden Institute, have a jointly administered opening for a Post-doctoral Fellow in the area of Neurovascular mechanics derived from clinical images.

Project:

A major thrust of this project will be the development of computational models of human neurovascular system for image-based patient-specific analysis and diagnosis. The Fellow will directly interact with clinical faculty and research staff to assist in acquiring clinical images of the human neurovascular system. The applicant will also interact with Biomedical Engineering faculty on evaluating improved clinical imaging protocols. Modeling efforts will be built within the new FeNiCSX open source package with plans for extensions to machine learning modeling. The Willerson Center is housed in the world class Oden Institute for Computational Engineering and Sciences which has access to state of the art supercomputer facilities at the Texas Advanced Computing Center (TACC). The Willerson Center has a long rich history of post-doctoral training, with ample opportunity for fellowship and NIH funding as a pathway to independence.
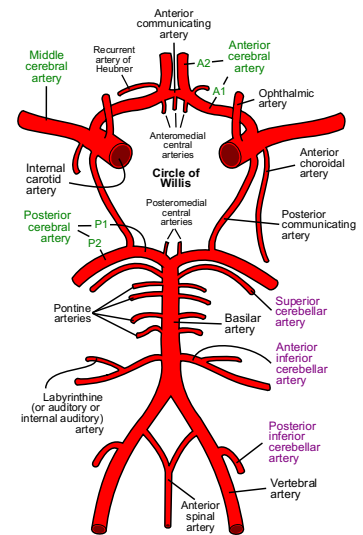
Qualifications:

- Knowledge/interest in the neurovascular function and simulation.
- Working knowledge of clinical imaging modalities.
- A PhD in engineering, physics, applied mathematics, or related fields.
- Proven experience with the finite element method, and proficient in detailed low-and high-level coding and model development
- Knowledge of geometry-to-model pipelines
- Interest in machine learning methods

Interested in joining world-class computational cardiovascular research team?

Please send a cover letter, CV, and publications to msacks@oden.utexas.edu with the subject "Neurovascular Post-doctoral fellow". We will contact short-listed candidates to arrange for interviews.