

Faculty Name:

Vijay Vedula

Faculty Email:

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Lab:

Cardiovascular Biomechanics Research Lab

Project Title:

Fluid-structure-interaction (FSI) modeling of heart valves

Description:

We are interested in developing, implementing, and testing novel numerical methods for simulating blood flow interactions with cardiac valves. The student will work with the PI and a postdoc in the lab. The student will gain in-depth knowledge of various numerical methods, including immersed boundary methods, thin shell mechanics, and finite element analysis, and will be exposed to the biomechanics of cardiac valves and patient-specific modeling.

Location of Research:

Hybrid (both Remote and On-Site)

of hrs/week:

40

Department/Program:

Mechanical Engineering

Eligibility:

MS

To apply, please contact:

vv2316@columbia.edu