

Two Postdoc Positions in CFD for Biological Applications Morgan State University

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Posted Jan. 19, 2024, set to expire May 20, 2024

Job Title	Two Postdoc Positions in CFD for Biological Applications
Department	Mechatronics Engineering
Institution	Morgan State University Baltimore, Maryland
Date Posted	Jan. 19, 2024
Application Deadline	Open until filled
Position Start Date	available Immediately
Job Categories	Post-Doc
Academic Field(s)	Engineering Mechanics Bioengineering (all Bio-related fields) Mechanical Engineering Mechatronics

Apply By Email

Job Description

Highly creative and outstanding individuals are sought immediately for two postdoctorals at the Morgan State University in CFD for two biological applications.

Position 1: Long Duration Human Exploration Mission on Vocal Fold Adduction for Airway Protection.

By collaborating with Dr. Haoxiang Luo's Group at Vanderbilt University, and Dr. Lea Sayce's group at University of Pittsburgh, computational models for glottal airflow interacting with vocal fold in the process of voice production for both healthy and disease conditions. The hierarchical models include both reduced-order and high-fidelity 3D FSI models that involve unsteady flow, large deformations, and nonlinear tissue mechanics.

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Position 2: CFD Modeling for Drug Spray in Nasal Cavity.

By collaborating with Dr. Adam Kimple's group at University of North Carolina Chapel Hill, subject specific CFD model will be developed to investigate the droplet transportation process of drug spray in nasal cavity.

Successful candidates should have a strong background in CFD, FSI, tissue mechanics modeling and programming.

Other preferable skills include:

- Large scale parallel computing, both programming and applications,
- Programing in Fortran or C,
- Nonlinear optimization,
- Medical image processing and anatomical computational models,
- Strong verbal/writing communication skills and ability to collaborate in a team.

This position will be supervised by Prof. Zheng Li in the Mechatronics Engineering Department at Morgan State University. The initial appointment is for 12 months, but multiple-year extension is possible depending on performance and availability of funding.

Review of applications will begin immediately, and will continue until the position is filled.

Salary range:\$55k-75k plus benefits.

Application:

Interested candidates should apply by sending email to both Prof. Zheng Li (zheng.li@morgan.edu) with the following documents: (1) a cover letter, (2) latest CV, and (3) contact information of at least 2 references (including name, affiliation, address, e-mail, and phone number).

Contact Information

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Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Zheng Li
Mechatronics Engineering
Morgan State University
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