

Postdoctoral Position in Topology Optimization at  
University of Pittsburgh  
University of Pittsburgh

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Posted Aug. 5, 2024, set to expire Dec. 4, 2024

<b>Job Title</b>	Postdoctoral Position in Topology Optimization at University of Pittsburgh
<b>Department</b>	Department of Mechanical Engineering and Materials Science
<b>Institution</b>	University of Pittsburgh Sewickley, Pennsylvania
<b>Date Posted</b>	Aug. 5, 2024
<b>Application Deadline</b>	Open until filled
<b>Position Start Date</b>	Oct. 1, 2024
<b>Job Categories</b>	Post-Doc
<b>Academic Field(s)</b>	Structural Engineering Robotics Optics & Optical Engineering Ocean Engineering Nuclear Naval Architecture & Marine Engineering Mechanical Engineering Material/Metallurgy Manufacturing & Quality Engineering Industrial & Systems Engineering Engineering Physics Engineering Mechanics Electrical and/or Electronics Computer Engineering Computer Science Civil Engineering Aerospace/Aeronautical/Astronautics Engineering - Other

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**Apply By Email**     [alberto@pitt.edu](mailto:alberto@pitt.edu)

### **Job Description**

There is an immediate opening for a postdoctoral researcher position in Professor Albert To's research group ([www.pitt.edu/~alberto](http://www.pitt.edu/~alberto)) in the Department of Mechanical Engineering and Materials Science at University of Pittsburgh. Our group is seeking a highly motivated individual with a strong background in topology optimization to work on a new project. The project aims to develop bi-material topology optimization considering multiple design constraints such as creep, fracture, manufacturing costs, and residual stress under additive manufacturing. Acceleration of topology optimization using machine learning techniques is also required. Successful candidate will work with an experimentalist to print parts with optimized material distribution using wire-arc additive manufacturing.

The candidate must have the following qualifications:

- A PhD in mechanical engineering, civil engineering, applied mechanics, or related fields
- Demonstrated expertise and research experience in topology optimization and computational mechanics or materials science
- Experienced programming in Python, C/C++

Desirable criteria:

- Knowledge in wire-arc additive manufacturing
- Demonstrated strong verbal and written communication skills
- Demonstrated ability to work as a team and independently
- Experience in mechanical testing and materials characterization
- Experience in using AM system

Position is now open until filled. Interested individual should submit a CV with contact information of three references to Professor Albert To ([alberto@pitt.edu](mailto:alberto@pitt.edu)).

**EEO/AA Policy**

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The University of Pittsburgh is an equal opportunity/affirmative action employer.

**Contact Information**

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

**Contact**      Albert To  
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