Mechanical Engineering and Materials Science

October 20, 2023

## Postdoctoral Position at Washington University in St. Louis

A one-year postdoctoral position with the possibility of extension of up to two years is open in the Materials Modeling & Microscopy (M-cube) group of Rohan Mishra at Washington University in St. Louis. The preferred start date is January 1, 2024.

The position involves screening of thermodynamically stable high-entropy alloys and compounds using first-principles density-functional theory (DFT) calculations, thermodynamic solution theory and machine-learning (ML). The project is a part of a multi-university effort and involves extensive collaboration with experimentalists focused on the synthesis and characterization of the targeted materials.

Applicants must have a recent Ph.D. in Materials Science, or a closely related field with demonstrated expertise in using DFT calculations to develop structure-property correlations in materials. Candidates with prior experience in using machine-learning methods for screening materials and strong programing skills will be preferred. The applicants should be able to work independently and in a team.

The successful applicant will have ample opportunities for career development. They are expected to be involved in co-mentoring graduate and undergraduate researchers, present their research at conferences, and develop independent research directions.

Washington University in St. Louis is a private university with about 16,000 students. It is surrounded by and adjacent to museums, performance venues, vibrant entertainment and dining districts, one of the nation's largest civic parks, and beautiful, tree-lined neighborhoods rich in history and diversity. <u>St. Louis</u> is consistently ranked among the nation's most affordable and best places to live.

Interested candidates are encouraged to apply by emailing *a single PDF file* containing: (1) a cover letter (not more than one-page) with a summary of accomplishments and future research interests; (2) CV (with a list of all publications); and (3) names of three references to Prof. Mishra (<a href="mailto:rmishra@wustl.edu">rmishra@wustl.edu</a>). Please use "Fall 23 postdoc opening" in the subject line.

Screening of applications will start immediately and will continue until the position is filled.