The Department of Materials Science and Engineering is seeking a Research Scientist who can facilitate state and industrially sponsored research programs in the areas of; crystal plasticity modeling, experimental measurements of mechanical behavior, and in-situ microstructure characterization using electron microscopy, synchrotron high-energy x-ray diffraction (HEXD) and neutron diffraction.

Projects will involve assessing and modeling the deformation response of metals and alloys (including additively manufactured alloys) under complex loading conditions, including high strain rates induced by the Kolsky (split-Hopkinson pressure) bar apparatus, characterizing and modeling the effects of solute additions and precipitates on dislocation behaviors in materials, including those with non-cubic crystal structures like Mg alloys, and using high energy X-ray diffraction to assess the stress states of individual grains within polycrystals during deformation.

The candidate will be responsible for encoding new model concepts, performing parametric studies, and simulation of experimental results; drafting project reports and archival journal papers in collaboration with the PI and students; and assisting the PI with identifying and securing new funded research projects by exploring new ideas, coordinating with sponsors, and co-authoring proposals. Other responsibilities include interacting with government and corporate sponsors, vendors, and the scientific community including presenting at conferences and program reviews giving demonstrations, and overseeing experimental measurements, updating of equipment, and development of procedures and training for safe and effective operation mechanical testing equipment.

A PhD in materials science, mechanical engineering, physics, or a related field, with at least 2 years of postdoctoral research experience is required. Candidates must also have computer programming skill, including experience with FORTRAN, MATLAB, and Python, and experience mentoring undergraduate and graduate students. Other requirements include attention to detail, good record keeping, keen analytical skills, ability to work on multiple projects, and good oral and written communication in English.

To apply, visit https://jobs.virginia.edu and search for Posting # 0624067. Complete a Candidate Profile online and attach the following: a cover letter stating your interest in the position and plans for the future, CV, and the contact information for three (3) references. Review of applications will begin October 17, 2018; however, the position will remain open until filled.

For additional information about the position, please contact Sean Agnew, agnew@virginia.edu.

Questions regarding the application, please contact Rich Haverstrom at rkh6j@virginia.edu.

The University of Virginia is annually ranked as one of the premier public institutions in the United States and is located in Charlottesville, a picturesque small but cosmopolitan city perennially ranked as one of the best places to live in the U.S.

With one of the highest graduation rates of minority undergraduate students and one of the highest
percentages of women engineering students among public universities, the University of Virginia is fundamentally committed to increasing the diversity of its faculty and staff. UVA is an affirmative action and equal opportunity employer. We welcome nominations of and applications from women, members of minority groups, veterans and individuals with disabilities. We also welcome others who would bring additional dimensions of diversity to the university's research and teaching mission. We believe diversity is excellence expressing itself through every person's perspectives and lived experiences.