University at Buffalo

Department of Materials Design and Innovation
School of Engineering and Applied Sciences
College of Arts and Sciences

NSF

MDI-REU

Research Experience for Undergraduates in Data-Driven Materials Science

MAY 31 – AUGUST 5, 2022

About the program

This Research Experience for Undergraduates (REU) offers a unique interdisciplinary experience that integrates cutting-edge data science techniques and the design of novel materials. REU students will be introduced to the field of Materials Informatics and learn how to apply artificial intelligence tools to create novel materials with preferred characteristics.

This program provides a combination of transformative curriculum developed by UB faculty in the Department of Materials Design and Innovation, with hands-on training and professional development. Students will present their research results to the group for their culminating experience.

The internship includes a scientific communications workshop, educational seminars and social activities, aimed at preparing a future generation of materials scientists who are fluent in both materials science and information science.
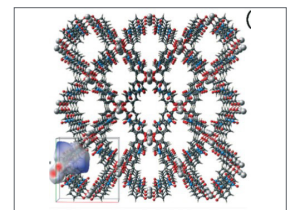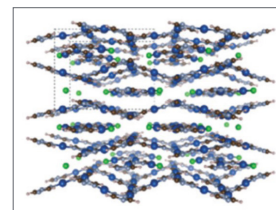
Who should apply

All applicants should be interested in pursuing a career in research and must be U.S. citizens or U.S. nationals. Students from groups underrepresented in STEM and non-research focused institutions are strongly encouraged to apply. No prior research experience required.

Timeline/Housing

The 10 week program runs from the day after Memorial Day through the first week of August. Flights to and from the internship location in Buffalo, NY and housing in the University at Buffalo dorms will be covered. Students that require on-site housing will check into their dorms on May 30 and check out on Saturday, August 6.

Program Highlights

- A $6000 stipend

- Authentic full-time research experience with hands-on training

- Scientific presentation skills workshops

- Seminars on current research

- Introductory courses on data driven approaches, materials science, and python for machine learning.

- Professional development, career mentoring, and social events.

- Networking with leading researchers, scientists and educators

Apply: buffalo.edu/reu

Application deadline is Monday, February 7, 2022