zintellect
climb higher

Opportunity Title: 2023 High Performance Computing Summer Internships
Opportunity Reference Code: DOE-EERE-HPC-2023

Organization	U.S. Department of Energy (DOE)
Reference Code	DOE-EERE-HPC-2023
How to Apply	Click on *Apply* to start your application.
Application Deadline	2/10/2023 5:00:00 PM Eastern Time Zone
Description	The U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE) High Performance Computing for Manufacturing (HPC4Mfg) Internship Program offers 10-week, hands-on, practical internships at DOE national laboratories.

Background

For half a century, America has led the world in high performance computing (HPC) thanks to sustained federal government investments in research and development and regular deployment of new systems. The strong synergy between hardware development and software and application development has been a defining strength of the U.S. approach. High Performance Computing for Manufacturing (HPC4Mfg) unites world-class computing resources and the expertise of national laboratories to deliver solutions that could revolutionize manufacturing.
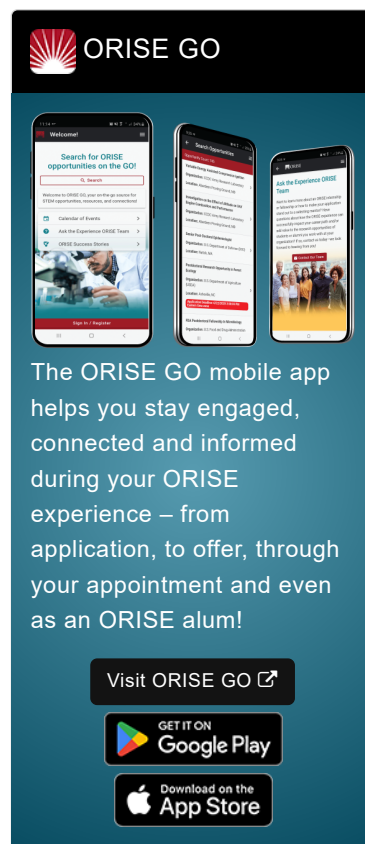
The HPC4Mfg program is a partnership between the public and private sectors to facilitate the use of advanced computational techniques in the private sector with the aim of reducing national energy consumption. In the HPC4Mfg Internship Program, student projects typically involve demonstrating advanced simulation and modeling in topic areas such as materials, computational fluid dynamics, combustion and machine learning applied to scientific computational results. The HPC4Mfg program is a component of High Performance Computing for Energy Innovation initiative. More information about the program can be found at https://hpc4energyinnovation.llnl.gov/. This program is sponsored by the Advanced Materials and Manufacturing Technologies Office (AMMTO) within the U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE).

Why should I apply?

As a participant in the EERE HPC4Mfg Internship Program, you will engage in research-level computational activities under the guidance of a mentor who is a technical staff scientist or engineer at a federal national laboratory. You will gain a competitive edge as you apply your education, talent, and skills to the research and development of projects focused on high performance computing (HPC). You will also be able to establish connections with DOE scientists and subject matter experts that promote long-term relationships between yourself, researchers, and DOE.

What will I do?

Internship activities will vary based on the assigned research project and hosting facility. You can choose the project you are most interested in for

the summer! As part of your application, you will identify your top 3 research projects from the 2023 HPC4Mfg Project Catalog. You can review the catalog at ***https://orise.orau.gov/AMsummer/hpc/default.html*** by scrolling to the bottom of the webpage. While your preferences will be taken into consideration during the final selection process, it is not guaranteed that you will be offered one of the projects listed.

Benefits

- **Stipend:** A stipend will be provided based on academic level at the start of your internship appointment.
  - Bachelor's and post-bachelor's students receive $700 per week
  - Master's and post-master's students receive $900 per week
  - Doctoral and postdoctoral students receive $1000 per week
- **Housing:** A housing allowance of $150/week will be provided if eligible. Additional housing stipend may be provided to offset high cost of living in certain locations.
- **Training/Research:** Up to $250 to offset relevant costs, such as fees for submitting research for publication, access to relevant training, etc.
- **Travel:** Travel reimbursement for inbound and outbound expenses up to $2,000 for participants who live more than fifty miles, one-way, from the assigned hosting laboratory.

Appointment Details

- Appointments will be for 10 consecutive weeks during the months of May – September 2023. Factors such as class schedules, housing availability, and laboratory schedules may be taken into consideration when determining appointment start and end dates.
- An appointment involves a full-time commitment at the host laboratory with the intern in residence on-site at the specified location.
- Interns are required to have health insurance coverage during the appointment period and to provide proof of this coverage prior to the start of the appointment.

In response to the evolving situation related to the COVID-19 pandemic, hosting sites may modify their operation schedule and access to facilities to ensure the health and safety of their entire workforce while maintaining operational effectiveness. Hence, the appointment date and location are subject to change contingent on hosting site guidelines and may result in a virtual placement.

Review and Selection Process

1. Applications will undergo an eligibility and compliance check by ORISE.
2. Hosting sites will review applications based on educational background, experience, interests, skills, career goals, and fit for projects.
3. Hosting laboratories will submit their recommended candidates to ORISE.
4. Final selection will be made by a federal official from EERE.
5. EERE will notify ORISE of final selections and ORISE will notify selected candidates and hosting laboratories.

Opportunity Title: 2023 High Performance Computing Summer Internships
Opportunity Reference Code: DOE-EERE-HPC-2023

Nature of Appointment

Participants will not enter an employee/employer relationship with ORISE, ORAU, DOE, or hosting laboratory. Instead, participants will be affiliated with ORISE for the administration of the appointment through the ORISE Letter of Appointment and Terms of Appointment.

For more information, contact us at AM.Internships@orise.orau.gov.

Qualifications **The EERE HPC4Mfg Internship Program is open to students and recent graduates who meet the following qualifications:**

- Be a U.S. citizen.
- Be at least 18 years old by May 1, 2023.
- Meet one of the following conditions:
    - **Undergraduate Student**: Enrolled as a full-time student as a junior or senior at a U.S. accredited college or university during Winter/Spring 2023 and pursuing a degree in a discipline related to high performance computing.
    - **Graduate Student**: Enrolled as a full-time graduate student at a U.S. accredited college or university during Winter/Spring 2023 and pursuing a degree in a discipline related to high performance computing.
    - **Recent graduate**: Have earned an undergraduate or graduate degree in the past two years in a discipline related to high performance computing.

NOTE: Eligible disciplines can be found in the list below.

Additional Information:

- If selected for an internship appointment, you will be required to provide proof of degree or proof of enrollment for Spring 2023 prior to the start of your internship.
- You are required to have health insurance coverage during the appointment period and to provide proof of this coverage prior to the start of the appointment.
- You will be required to meet ALL facility guidelines and requirements, including any citizenship, security, or other restrictions, as determined by each individual hosting site. You will be expected to provide any required documentation to your hosting site, prior to your internship start date.

For program details, please visit: https://orise.orau.gov/AMsummer/hpc/default.html

A complete application submitted by Friday, February 10, 2023; 5:00 PM Eastern Time Zone consists of:

- A completed Zintellect profile.
- Essay Questions: The application includes questions specific to the opportunity.

- Preferred project(s): You must choose at least one, but no more than three projects from the 2023 HPC4Mfg Internship Project Catalog located at https://orise.orau.gov/AMsummer/hpc/default.html.
- Academic Records: For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. <u>Academic records must include the name, logo or other identification of the academic institution, name of the student, completed coursework, and grades.</u>
- A current Curriculum Vitae/Resume.
- One (1) Recommendation: Applicants are required to provide contact information for one recommendation in order to complete the application. You are encouraged to request a recommendation from a professional who can speak to your abilities and potential for success as well as your scientific capabilities and personal characteristics.
  - **Recommendation requests must be sent through the Zintellect application system.**
  - Recommenders will be asked to complete a recommendation in Zintellect. <u>Letters of recommendation submitted via email will not be accepted</u>.
  - **Recommendations must be submitted through Zintellect by Friday, February 10, 2023; 5:00 PM Eastern Time Zone.**

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system. All documents must be submitted via Zintellect. All application components **must** be received in the system to be considered.

For additional information or questions, feel free to contact us at AM.Internships@orise.orau.gov. Please list the reference code [DOE-EERE-HPC-2023] for this opportunity in the subject line of your email.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 24 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (46 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)

- **Age:** Must be 18 years old by 5/1/2023