Opportunity Title: Software Engineer Internship
Opportunity Reference Code: DOE-MSIPP-20-2-ANL

Organization	U.S. Department of Energy (DOE)
Reference Code	DOE-MSIPP-20-2-ANL
How to Apply	A complete application must include the following to be considered:

- Completion of all required fields in the application and successful application submission
- Undergraduate transcripts as appropriate
- Two recommendations

If you have questions, send an email to us at MSIPPinternships@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 1/31/2020 11:59:00 PM Eastern Time Zone

Description The Minority Serving Institutions Partnership Program (MSIPP) Internships is a new program to promote the education and development of the next generation workforce in critical science, engineering, technology, and math (STEM) related disciplines that complement current and future missions of DOE national laboratories. The MSIPP Internship program is designed to provide an enhanced training environment for next generation scientists and engineers by exposing them to research challenges unique to our industry.

MSIPP Interns will be given the opportunity to complete Summer Internships aligned with ongoing U.S. Department of Energy Office of Environmental Management (DOE-EM) research under the direction of a host national laboratory. The internship will be performed at the host national laboratory, utilizing their facilities and equipment under the guidance of a research staff member.

Minority Serving Institutions are institutions of higher education enrolling populations with significant percentages of undergraduate minority students.
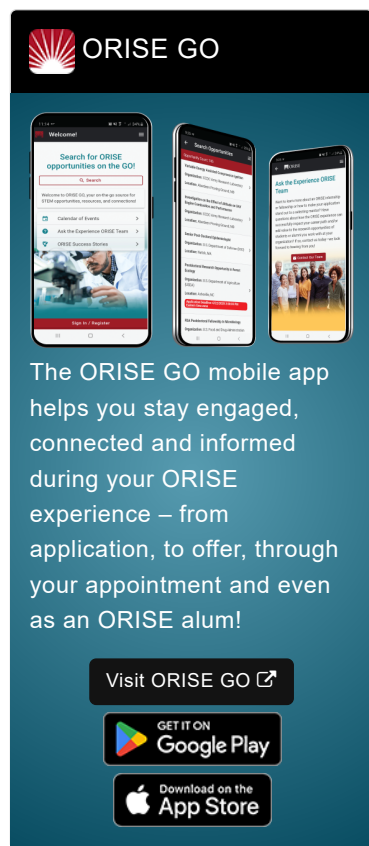
For more information about The Minority Serving Institutions Partnership Program (MSIPP) Internships, please visit here.

To see all MSIPP position postings visit: https://orise.orau.gov/msipp/

Project Description:

Date of Appointment: May 26-July 31, 2020

Applicant would collaborate with a small team of software engineers and cybersecurity researchers that designs, develops, tests and maintains custom national security-focused, Java/JavaScript-based web applications for several federal agencies. Areas of participation are dependent on the candidate's preferred focus, but may include automated browser testing and software quality control, cybersecurity scanning and analysis, penetration testing, natural language processing, relational and/or graph

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databases, UML modeling, cloud computing, and web application development. Salary: Selected candidate will be compensated by either a stipend or salary, and may include one round trip domestic travel to and from the host laboratory. Stipends and salaries will be commensurate with cost of living at the location of the host laboratory. Housing information will be provided to interns prior to arrival at the host laboratory, and will vary from lab to lab.

Qualifications   Required Knowledge, Skills, Work Experience, and Education   Successful candidates will:

• Be a rising junior or senior undergraduate student studying microbiology, biochemistry or chemistry.
• Have the ability to complete a scientific literature review on subject of study.
• Have skills and maturity to operate advanced laboratory instruments, perform experiments, analyze data, and maintain records in the environmental biotechnology laboratory.
• Have ability to follow all laboratory safety rules and procedures.

Desired Knowledge, Skills, Work Experience, and Education   It is desirable for the candidate to have:

It is desirable for the candidate to have:

• Candidate should be a junior or senior undergraduate studying software engineering or cybersecurity/ networking.

• All candidates must be able to work effectively as a member of a technical team.

• Software engineering candidates should have working knowledge of: Java, database management systems, HTML, JSP, CSS, JavaScript, XML, and JSON. Additional knowledge of application testing frameworks (such as Selenium), Eclipse IDE, natural language processing, and UML modeling are a plus.

• Cybersecurity/networking candidates should have working knowledge of Windows and Linux OS administration, networking security and configuration, hardware systems and virtualization, cybersecurity tools such as Metasploit, Nessus, and Wireshark. Additional knowledge of cloud computing is a plus.

Eligibility Requirements
- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing an Associate's Degree or Bachelor's Degree.
- **Overall GPA:** 3.20
- **Academic Level(s):** Undergraduate Students.
- **Discipline(s):**
    - **Computer, Information, and Data Sciences** (16 👁)

Affirmation I certify that I am at least 18 years of age, a US citizen, and currently enrolled as a student in a degree seeking undergraduate in a STEM field at an accredited Minority Serving Institution (MSI). Click here to verify that you are enrolled at a current MSI.