

Opportunity Title: USDA-ARS Undergraduate Student Internship in Bioinformatics

Opportunity Reference Code: USDA-ARS-2022-0054

Organization U.S. Department of Agriculture (USDA)

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A complete application consists of:

- An application
- Transcript(s) – 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. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

Description **Applications may be reviewed on a rolling-basis, and this posting will remain open until a qualified candidate is identified.*

ARS Office/Lab and Location: A research opportunity in Bioinformatics is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Sustainable Agriculture Systems Laboratory in Beltsville, Maryland.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

The Sustainable Agricultural Systems Laboratory solves problems facing the conversion of US agricultural into a long lasting resilient food, fiber and fuel production system. The mission of the Maul lab is to ensure agricultural productivity by understanding how agricultural management interacts with genotypical and environmental factors supporting resilient and resistant ecosystems.

Research Project: The research project is investigating the genetic composition of organisms that have shown promise as bio control or plant beneficial inoculations in agricultural production systems. The participant will assist Scientists in a variety of activities including: microbiome community analysis,



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prokaryote and eukaryote whole genome sequencing, assembly,
and annotation.

Learning Objectives: The participant will learn how to process raw
DNA and RNA sequence and derive likely gene candidates likely
to be in the mechanism or regulation of biocontrol organisms.
The participant will have the opportunity to present the research
in posters and papers intended for the national and international
scientific community.

Mentor(s): The mentor for this opportunity is Dr. Jude Maul (jude.maul@usda.gov). If
you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: As soon as a qualified candidate is
identified. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may
be renewed upon recommendation of ARS and is contingent on the availability of
funds.

Level of Participation: The appointment is part-time (30 hours per week).

Participant Stipend: The participant will receive a monthly stipend commensurate
with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S.
citizens only.

ORISE Information: This program, administered by ORAU through its contract with
the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science
and Education (ORISE), was established through an interagency agreement between
DOE and ARS. Participants do not become employees of USDA, ARS, DOE or the
program administrator, and there are no employment-related benefits. Proof of health
insurance is required for participation in this program. Health insurance can be
obtained through ORISE.



Questions: Please visit our [Program Website](#). After reading, if you have additional
questions about the application process please email
ORISE.ARS.Northeast@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should be currently pursuing a bachelor's degree in one of
the relevant fields.

Experience working with bioinformatic software, genome
assembly and gene prediction is preferred.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Bachelor's Degree.
- **Academic Level(s):** Undergraduate Students.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (3 )
 - **Life Health and Medical Sciences** (2 )