

Opportunity Title: CDC Big Data Fellowship

Opportunity Reference Code: CDC-NCHHSTP-2021-0198

Organization Centers for Disease Control and Prevention (CDC)

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A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- One educational or professional recommendation. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

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

Application Deadline 7/30/2021 3:00:00 PM Eastern Time Zone

Description *Applications will be reviewed on a rolling-basis.

CDC Office and Location: A research opportunity is currently available with the Surveillance and Data Science Branch (SDSB) of the Division of STD Prevention (DSTDP) of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.

The mission of SDSB is to capture national data on burden and trends of STDs and to develop information systems for case based and sentinel disease surveillance. SDSB's Informatics Team is working to upgrade computer systems and databases and to design information systems that can electronically receive, store, and transmit case data. STD case surveillance and laboratory data are currently stored in a data warehouse where it is analyzed and visualized using SAS and Power BI. Over the next few years, this data warehouse will move to the CDC cloud.

Research Project: This fellowship will focus on the Informatics Team's portfolio of systems and databases and will provide the fellow with the opportunity to participate on a variety of informatics initiatives while building skills through both formal and informal training and mentoring. This fellowship will give the participant learning experiences relevant to collecting, parsing, managing, analyzing, and visualizing large data sets to turn information into insights.

Under the guidance of a mentor, the participant will receive training in the following:

- Using advanced database, data warehousing and data management methods and technologies to support extraction and transformation of STD case and surveillance data and loading into the data warehouse
- Identifying appropriate hardware and software to facilitate migrating data from the warehouse to the cloud environment
- Designing and developing system requirements and business rules for data migration
- Conducting data management activities using Structured Query



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Language (SQL)

Learning Objectives:

- Understand the requirements for migrating data from a warehouse to a cloud environment
- Learn about the design and implementation of information systems that can electronically receive, store and transmit STD case data.
- Apply ELT Workflow concepts to describe the data migration process
- Learn about CDC IT processes and requirements

Mentor(s): The mentor for this opportunity is Ninad Mishra (enl5@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: August 1, 2021. 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 CDC and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

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, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

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 CDC. Participants do not become employees of CDC, 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.CDC.NCHHSTP@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a master's or doctoral degree in one of the relevant fields. Degree must have been received within the past five years.

Preferred skills:

- Understanding of and familiarity with data technologies (i.e., SQL, HL7, Python, PowerBI)
- Understanding of and familiarity with cloud computing environments
- Experience working in teams and collaborating with others
- Excellent oral and written communication skills

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**Eligibility
Requirements**

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([17](#) 👁)
 - **Engineering** ([2](#) 👁)
 - **Life Health and Medical Sciences** ([1](#) 👁)