

Opportunity Title: FDA Fellowship in Regulatory Science for AI/ML in Medical Imaging and Radiography

Opportunity Reference Code: FDA-CDRH-2022-19

Organization U.S. Food and Drug Administration (FDA)

Reference Code FDA-CDRH-2022-19

How to Apply *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!

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

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

If you have questions, send an email to ORISE.FDA.CDRH@oraui.org. Please include the reference code for this opportunity in your email.

Application Deadline 2/1/2023 3:00:00 PM Eastern Time Zone

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

A research opportunity is available in the Division of Imaging, Diagnostics, and Software Reliability (DIDSR) Office of Science and Engineering Laboratories (OSEL) within the Center for Devices and Radiological Health (CDRH), Food and Drug Administration (FDA) located in Silver Spring, Maryland.

Research fellow appointment in artificial intelligence/machine learning (AI/ML) applied to analysis of radiographic images and design of tools supporting regulatory research using synthetically generated datasets. The fellow will play a key role in collaborative projects involving scientists within and outside of the FDA to develop and evaluate AI/ML tools that rely on synthetically generated data for analysis and improvement of image classification and segmentation algorithms.

Anticipated Appointment Start Date: January 1, 2023; start date is flexible

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and FDA. The initial appointment is for one year but may be renewed upon recommendation of FDA contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time on-site for laboratory research at FDA in the Silver Spring, Maryland, area. Participants do not become employees of FDA, DOE or the program administrator, and there are no employment-related benefits.

Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at FDA. OPM can complete a background



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investigation only for individuals, including non-US Citizens, who have resided in the US for a total of three of the past five years.

FDA requires ORISE participants to read and sign their FDA Education and Training Agreement within 30 days of his/her start date, setting forth the conditions and expectations for his/her educational appointment at the agency. This agreement covers such topics as the following:

- Non-employee nature of the ORISE appointment
- Prohibition on ORISE Fellows performing inherently governmental functions
- Obligation of ORISE Fellows to convey all necessary rights to the FDA regarding intellectual property conceived or first reduced to practice during their fellowship
- The fact that research materials and laboratory notebooks are the property of the FDA
- ORISE fellow's obligation to protect and not to further disclose or use non-public information.

Qualifications The qualified candidate should be currently pursuing or have received a bachelor's, master's, or doctoral degree in one of the relevant fields (e.g. Engineering, Physics, Mathematics, Computer Science, Statistics). Degree must have been received within the past five years.

Preferred skills include:

- Ideal candidates will have a strong background in computational approaches to data analysis, with a strong interest in AI/ML applications to medical image data analysis.
- Studies in Engineering, Physics, Optics, Mathematics, Computer Science, Statistics or similar
- Programming with Python (including scientific stack: NumPy, SciPy, scikit-learn, etc.), deep learning frameworks (e.g., PyTorch, Tensorflow etc.), large-scale data analysis in high performance computing (HPC) cluster environments
- Experience with AI/ML for image data analysis, processing and management

Eligibility Requirements

- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Communications and Graphics Design** ([6](#) 👁)
 - **Computer, Information, and Data Sciences** ([2](#) 👁)
 - **Engineering** ([4](#) 👁)
 - **Life Health and Medical Sciences** ([3](#) 👁)
 - **Mathematics and Statistics** ([1](#) 👁)

Affirmation I have lived in the United States for at least 36 out of the past 60 months. (36 months do not have to be consecutive.)