



Position available at FDA research lab (Start Oct. 1, 2022):

*Statistics and Informatics Support
the Assessment of Artificial Intelligence and Machine Learning*

Division of Imaging, Diagnostics, and Software Reliability (DIDSR)

Office of Science and Engineering Laboratories (OSEL)

Center for Devices and Radiological Health (CDRH)

U.S. Food & Drug Administration (FDA)

A full or part-time fellowship is available in the digital pathology lab to support the multi-collaborator high-throughput truthing project to produce a validation dataset of pathologist annotations for artificial intelligence and machine learning (AI/ML) models analyzing digital scans of pathology slides (<https://ncihub.org/groups/eedapstudies>). The person hired will maintain an instance of the caMicroscope digital pathology viewer (<https://github.com/camicroscope>): study images, data collection workflows, data being collected, APIs to aggregate the data, statistical analysis scripts and reports. The person hired will also support data-collection activities that will be used for evaluating pathologist-pathologist and algorithm-pathologist agreement and will lead or support the development of novel validation study designs and statistical analysis methods. The ideal candidate has experience with one or more of the following in order of importance: container programming (managing and manipulating modular docker procedures), API development (HTTP server management, database integration and management), statistical programming (R), medical image processing, and AI/ML development. Other desired skills are project management and communication (speaking and writing). Top candidates will have an advanced degree or documented skills and experience with one or more of the following in order of importance: software development, data governance, pathology, and optical and digital imaging (microscopes, digital cameras, displays).

Key deliverable:

- Docker implemented pipeline to receive an AI/ML model, apply the model to a set of digital pathology images to produce the biomarker of interest, compare the biomarker values to the reference standard, and produce an algorithm performance report.

The candidate will join a diverse medical imaging research group with a regulatory focus.

<https://www.fda.gov/about-fda/cdrh-offices/division-imaging-diagnostics-and-software-reliability> DIDSR provides subject matter expertise to the regulatory review of Radiology and Pathology Medical Imaging Devices, Artificial Intelligence and Machine Learning, Augmented and Virtual Reality, and Digital Pathology. DIDSR laboratories are located on the FDA White Oak campus in metropolitan DC and **remote work is possible**. The position provides multiple opportunities for training within and outside the FDA laboratories. Candidates must have resided in the US for 3 of the last 5 years to satisfy security clearance requirements. Interested candidates should send an email to brandon.gallas@fda.hhs.gov with a detailed resume or CV and the name and contact information of three references. Please use the words "DIDSR Digital Pathology Position" as subject.