

GitHub Utilization and Applications to Public Health

February 1 — March 19th, 2026

Virtual | Zoom

DESCRIPTION

GitHub allows users to host and manage code for software development. In the public health sphere, GitHub's platform allows for collaboration and quality control through its shared, version-controlled ecosystem. This platform allows for bioinformaticians to build and refine pipelines in an environment that allows for collaboration and version control. The 7-week training will have a combination of lecture, office hours, and a final interactive activity.

This training will provide an opportunities for asynchronous virtual training using modules on the DataCamp platform, combined with weekly live office hours and culminating in a live hands-on activity designed to test the skills that they have learned in lecture. The live hands-on training was designed by public health bioinformaticians to see how these skills can be used in public health. Participants are expected to spend 1-2 hours every week in order to complete the lecture modules and interactive activity.

AUDIENCE

This course will cover Git and GitHub utilization, from introductory to more advanced topics, and would be beneficial for state, territorial or local, health bioinformaticians, data scientists or laboratorians who are charged with conducting bioinformatic analysis and are familiar with the utilization of command line environments for script or tool development. Participants will require their own GitHub account (free) to engage with the training.

OBJECTIVES

After completing this webinar the participant will be able to:

- Recognize the various functions and applications of the GitHub platform in maintaining and developing code.
- Identify the GitHub platform's role as a collaborative tool for producing bioinformatic tools for public health use.
- Employ GitHub applications to the development of code for utilization in their laboratory.

APPLY

Application Closes: **January 14, 2026 | 11:59 pm ET**

Application via the link above is required to participate in the workshop. Upon registration/acceptance, a confirmation letter with more detailed workshop information will be sent by email. If you need assistance with registration, please email [Shannon Mahoney](mailto:Shannon.Mahoney@aphl.org).

Level of Instruction:

- **INTERMEDIATE:** Refresher course; some basic knowledge is required; for the experienced staff technologist with some years of experience.

FACULTY

Office hours and the final interactive activity will be facilitated by:

- **Kelsey Florek, PhD, MPH**, senior genomics and data scientist, Wisconsin State Laboratory of Hygiene
- **Jake Garfin, BS**, bioinformatician, Minnesota Department of Health
- **Jared Johnson, PhD**, epidemiologist III, Washington State Department of Health

ACCESSIBILITY

In compliance with the Americans with Disabilities Act, individuals seeking special accommodations must email a request to Shannon Mahoney (Shannon.mahoney@aphl.org) at least three weeks prior to the workshop's start date.

By registering for this event, you are consenting to have your information shared with APHL event collaborators, such as the Centers for Disease Control and Prevention and Public Health Laboratories. We will not, in any circumstances, share your information with other individuals or organizations without your permission, including corporations or individuals, except when applicable by law. We do not sell, communicate or divulge your information to any mailing lists.

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MULTI-WEEK AGENDA

INTRODUCTION TO GIT (DATACAMP, ASYNCHRONOUS) – FEBRUARY 2 - FEBRUARY 11

- Objectives:
 - Recognize how GitHub utilizes version control processes as part of its continuous, collaborative software and data development platform.
 - Operate Git programming to implement version control on user projects, including operation of features such as repository creation and file tracking.
- Office Hour—**February 6th, 3-4pm EST**

INTERMEDIATE GIT (DATACAMP, ASYNCHRONOUS) – FEBRUARY 12 - FEBRUARY 23

- Objectives:
 - Extend your foundational knowledge of Git to encompass additional concepts, including branching, remote repositories, and conflict management.
 - Operate Git programming to utilize branches for separating production and development environments, as well as merging conflicts common in Git utilization.
- Office Hour—**February 13th and 20th, 3-4pm EST**

INTRODUCTION TO GITHUB PRODUCTS: A COMPLETE GUIDE (DATACAMP, ASYNCHRONOUS) – FEBRUARY 24 - MARCH 5TH

- Objectives:
 - Summarize fundamental GitHub actions, including creation of public and private repositories, creating and modifying files, branches, and issues, assigning tasks, tagging users, and reviewing merging branches.
 - Employ knowledge gained to understand and confidently execute coding or data project within the GitHub framework.
- Office Hour—**February 27th and March 6th, 3-4pm EST**

INTERMEDIATE GITHUB CONCEPTS (DATACAMP, ASYNCHRONOUS) – MARCH 6TH - MARCH 16TH

- Objectives:
 - Summarize more advanced GitHub actions, including GitHub Projects, automation with GitHub Actions, and advanced security features on the platform.
 - Employ what you learned to more competently engage with the GitHub platform, including management of complex workflows, enhanced team collaboration, and effective project security.
- Office Hour—**March 13th, 3-4pm EST**

HANDS-ON EXERCISE (LIVE/INTERACTIVE) – MARCH 19TH, 11AM-2PM EST

- The workshop's final project will involve a collaborative, puzzle-based challenge within the GitHub framework. In the activity, participants will generate a script to decrypt a text file containing data and a key. Decrypted data will be incorporated into a large batch operation that then denote a comprehensive data sequence. Participants will use what they learned in the DataCamp modules to write and troubleshoot their scripts.
- Objectives:
 - Apply foundational knowledge obtained over the initial portion of this workshop series to collaboratively interact with real-world Git applications, displaying optimal use of various program features.
 - Understand how the skills and principles in the virtual training apply to public health laboratory bioinformatics applications.