



Research Data Workshop Series

- Introduction to GitHub

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**AGRI-FOOD DATA
CANADA**

AT THE UNIVERSITY *of* GUELPH

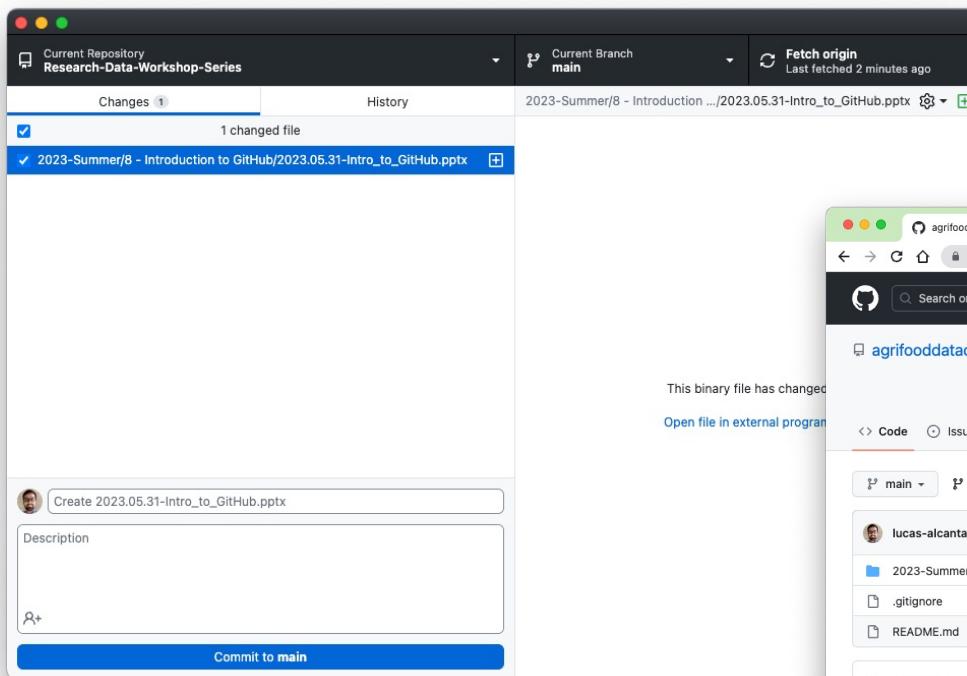
Workshop Outline

- Welcome to Git and GitHub
- Git/GitHub (short) Glossary
- Practice
 - GitHub Skills
 - GitHub Desktop

Welcome to Git and GitHub

What is Git/GitHub?

- A Software!



The screenshot shows a web browser displaying a GitHub repository page. The URL is 'github.com/agrifooddatacanada/Research-Data-Workshop-Series'. The repository is public and has 2 forks, 0 stars, and 0 releases. It contains 1 branch ('main'), 0 tags, and 35 commits from 'lucas-alcantara'. The commits are:

- f6c5612 2 weeks ago move data folder to my_app
- 2023-Summer move data folder to my_app 2 weeks ago
- .gitignore Update .gitignore 2 months ago
- README.md Update README.md 2 weeks ago

The repository also includes a 'README.md' file which features an image of a computer processor with the text 'AGRI-FOOD RESEARCH DATA WORKSHOP SERIES Wednesday Workshops 9:00 - 12:00 p.m.'.

The screenshot shows a terminal window titled 'Research-Data-Workshop-Series -- zsh -- 80x14'. The command 'git status' was run, and the output is as follows:

```
On branch main
Your branch is up to date with 'origin/main'.

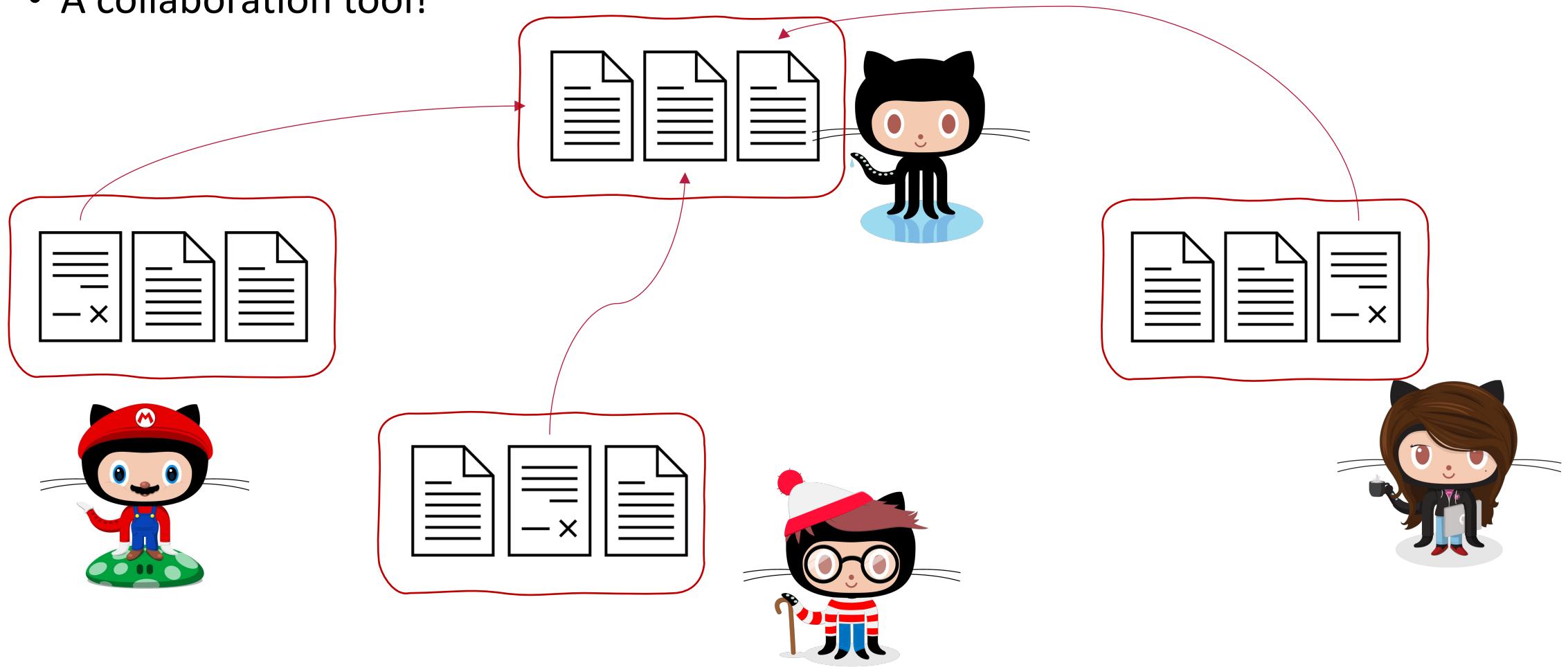
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    2023-Summer/8 - Introduction to GitHub/2023.05.31-Intro_to_GitHub.pptx

nothing added to commit but untracked files present (use "git add" to track)
```

At the bottom, it shows the user's terminal prompt: 'alcantala@OVPR-V2VNL0RX4N Research-Data-Workshop-Series %'

What is Git/GitHub?

- A collaboration tool!



What is Git/GitHub?

- A collaboration tool!

A screenshot of a GitHub issue page. The URL is github.com/RinteRface/bs4Dash/issues/297. The issue title is "tabsetPanel renders below the list of tabPanels when vertical = TRUE #297". The status is "Closed" by lucas-alcantara on Jul 11, 2022. The comment content is:

```
Hello,  
I am trying to use the option vertical= TRUE within tabsetPanel , but even though I can get the vertical list of tabPanel , the contents are rendered below the list and not on the right side of it. I thought it could be because of a short width, but nothing changes even with width = 12 .  
Am I missing anything or is there an issue here?  
Thanks!  
  
library(shiny)  
library(bs4Dash)  
  
ui <- dashboardPage(  
  header = dashboardHeader(  
    title = dashboardBrand(  
      title = "My dashboard"  
    )  
  ),  
  sidebar = bs4DashSidebar(),  
  controlbar = dashboardControlbar(),  
  body = dashboardBody(  
    fluidRow(  
      column(  
        12,  
        box(  
          width = 12  
        )  
      )  
    )  
  )  
>
```

The issue has 69 comments, 10 pull requests, 1 project, and 398 stars.

A screenshot of a GitHub issue page. The URL is github.com/RinteRface/bs4Dash/issues/323. The issue title is "Feature request: remove collapse animation on app startup #323". The status is "Closed" by lucas-alcantara on Dec 5, 2022. The comment content is:

```
Hi David,  
My app starts with a sign-in page with a collapsed sidebar, which is only supposed to show when users click on the 'sign in' button. Even though I enjoy the collapse animation at other times, on startup I find it rather distracting.  
Request: Is it possible to start the app without animating the sidebar being collapsed at all?  
Shiny version: 1.7.2  
bs4Dash version: 2.2.0.9000  
  
Here's a reproducible example:  
  
library(shiny)  
library(bs4Dash)  
  
shinyApp(  
  ui = dashboardPage(  
    dashboardHeader(),  
    dashboardSidebar(  
      id = "sidebar",  
      collapsed = TRUE,  
      minified = FALSE,  
      sidebarMenu(  
        id = "sidebarMenu",  
        menuItem(  
          text = "Home",  
          tabName = "tab1"  
        )  
      )  
    ),  
    dashboardControlbar(),  
    dashboardBody(  
      fluidRow(  
        column(  
          12,  
          box(  
            width = 12  
          )  
        )  
      )  
    )  
  )
```

The issue has 69 comments, 10 pull requests, 1 project, and 398 stars.

What is Git/GitHub?

- A collaboration tool!

A screenshot of a GitHub pull request page. The URL is github.com/RinteRface/bs4Dash/pull/236. The title is "removed a comma #236". The status is "Merged" by DivadNojnarg on Jan 12, 2022. The commit message is: "the basic example from the bs4Dash.Rmd couldnt be run because there was an extra comma. I removed the extra comma." There is one commit, 13 checks, and 1 file changed. The pull request has 0 conversations, 1 committer, and 13 checks. The right sidebar shows review stats, assignees, labels, projects, milestones, and development details.

A screenshot of a GitHub pull request page. The URL is github.com/RinteRface/bs4Dash/pull/209. The title is "Update card fixes #209". The status is "Merged" by DivadNojnarg on May 17, 2021. The commit message is: "Various improvements to updateCard". There are 4 commits, 13 checks, and 85 files changed. The pull request has 0 conversations, 4 committers, and 13 checks. The right sidebar shows review stats, assignees, labels, projects, milestones, and development details.

What is Git/GitHub?

- An ecosystem of version-controlled repositories/projects!

This screenshot shows a GitHub repository page for 'agrifooddatacanada / Research-Data-Workshop-Series'. The repository is public and contains several commits from a user named 'lucas-alcantara'. The commits include moving data folders and updating README files. A preview of the 'README.md' file is shown, featuring a logo for 'AGRI-FOOD RESEARCH DATA WORKSHOP SERIES'.

Commits:

- move data folder to my_app (2 weeks ago)
- Update .gitignore (2 months ago)
- Update README.md (2 weeks ago)

README.md preview:

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DATA WORKSHOP SERIES

This screenshot shows a detailed view of commits in the same GitHub repository. It highlights a series of commits made on May 31, 2023, by the user 'lucas-alcantara'. The commits involve moving data folders, updating README files, creating R scripts, and publishing PDF documents related to the AgriFood Data Workshop.

Commits on May 31, 2023:

- move data folder to my_app (f6c5612)
- Update README.md (eb5b4e6)
- Create app.R (85fda0b)
- Update AgriFoodDataWorkshop_20230531.pdf (3973959)
- Create AgriFoodDataWorkshop_20230531.pdf (fd4hb81)

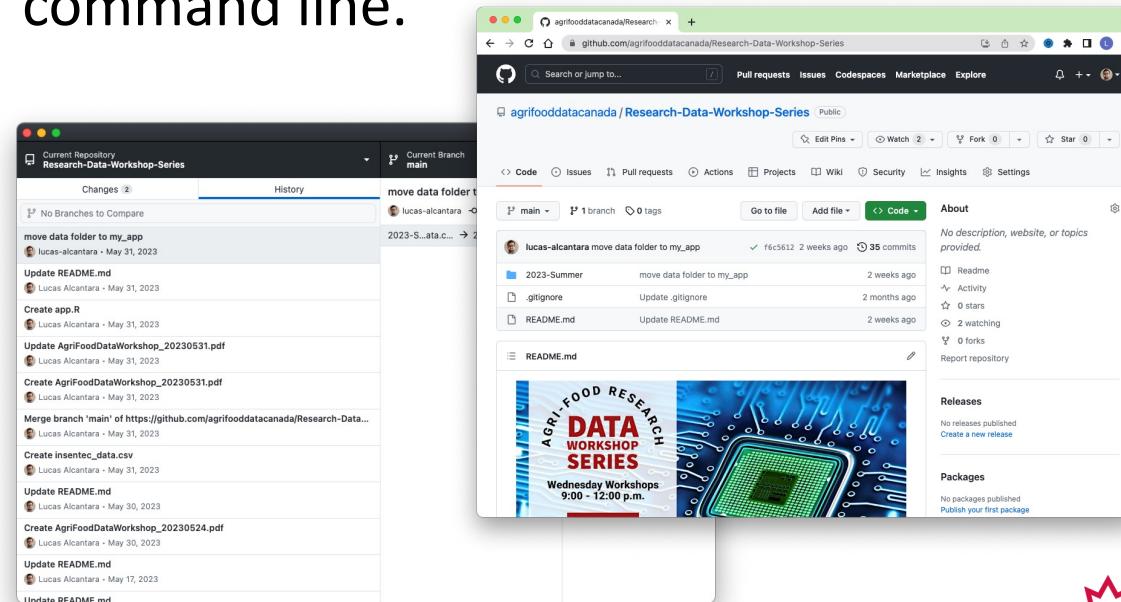
Git vs. GitHub

- Git is the command line software that handles version control on your repository
- When you use GitHub, Git is always doing the work behind the scenes

```
Research-Data-Workshop-Series — zsh — 80x14
~/GitHub/Research-Data-Workshop-Series — zsh
Research-Data-Workshop-Series % git status
On branch main
Your branch is up to date with 'origin/main'.

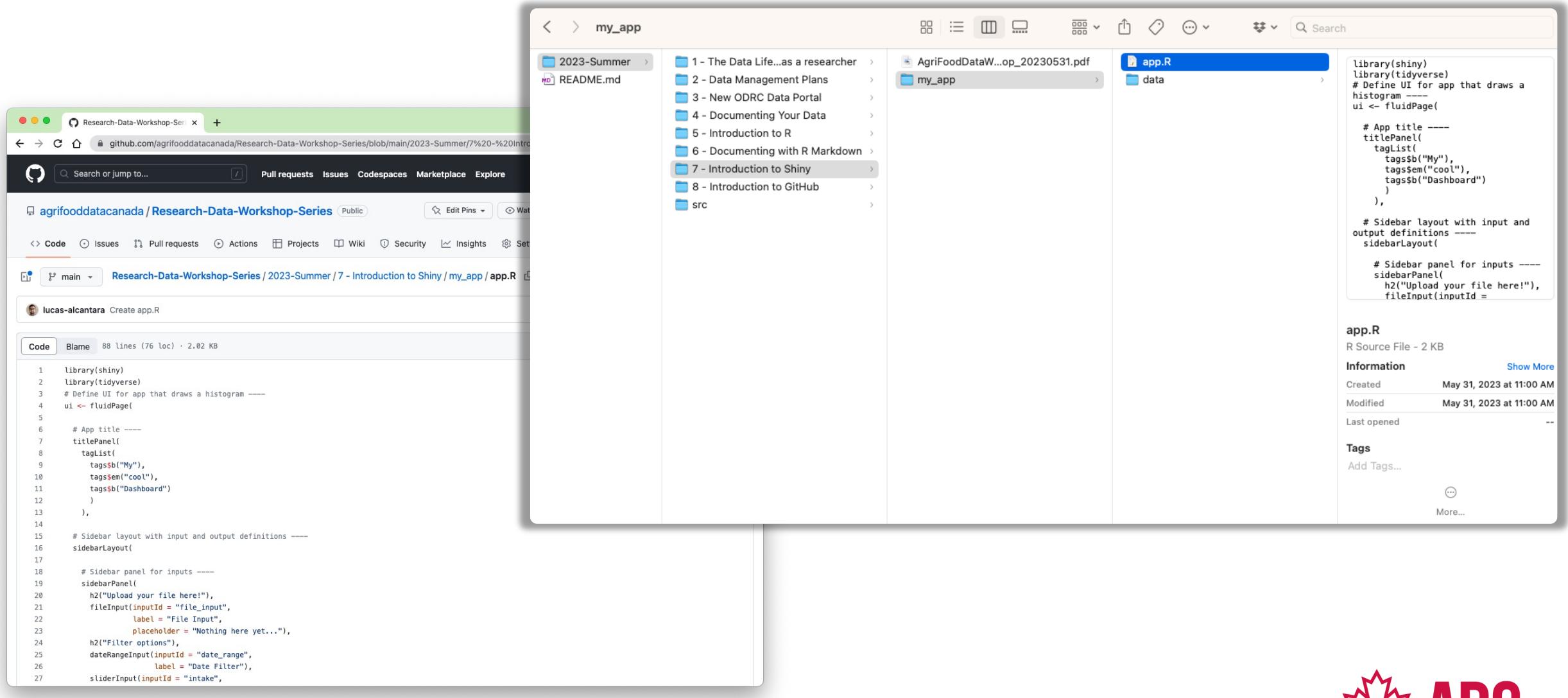
Untracked files:
  (use "git add <file>" to include in what will be committed)
    2023-Summer/8 - Introduction to GitHub/
nothing added to commit but untracked files present (use "git add" to track)
alcantara@0VPR-V2NL0RX4N Research-Data-Workshop-Series %
```

- GitHub is a service that hosts your repository online and helps you work with contributors/collaborators
- It's a web interface for version control
- Most often you will interface with GitHub (online) through the GitHub Desktop App or via the command line.



Git/GitHub (short) Glossary

Repository (Repo): This is where all your files/folders live

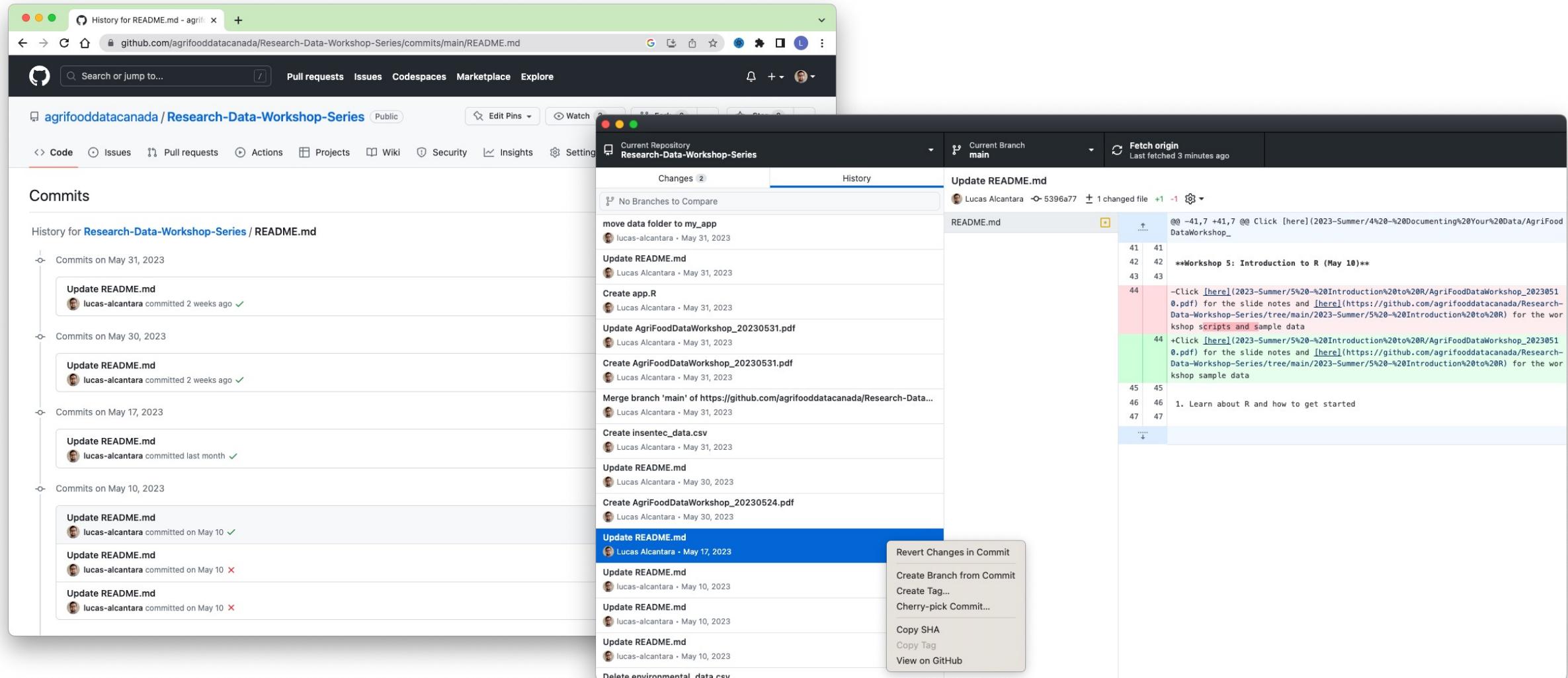


The image shows a dual-pane view of a GitHub repository. On the left, a browser window displays the GitHub interface for the repository `agrifooddatacanada/Research-Data-Workshop-Series`. The main pane shows the file structure of the `my_app` directory, which contains `2023-Summer`, `README.md`, `AgriFoodDataW...op_20230531.pdf`, and `app.R`. The right pane is a code editor showing the contents of `app.R`.

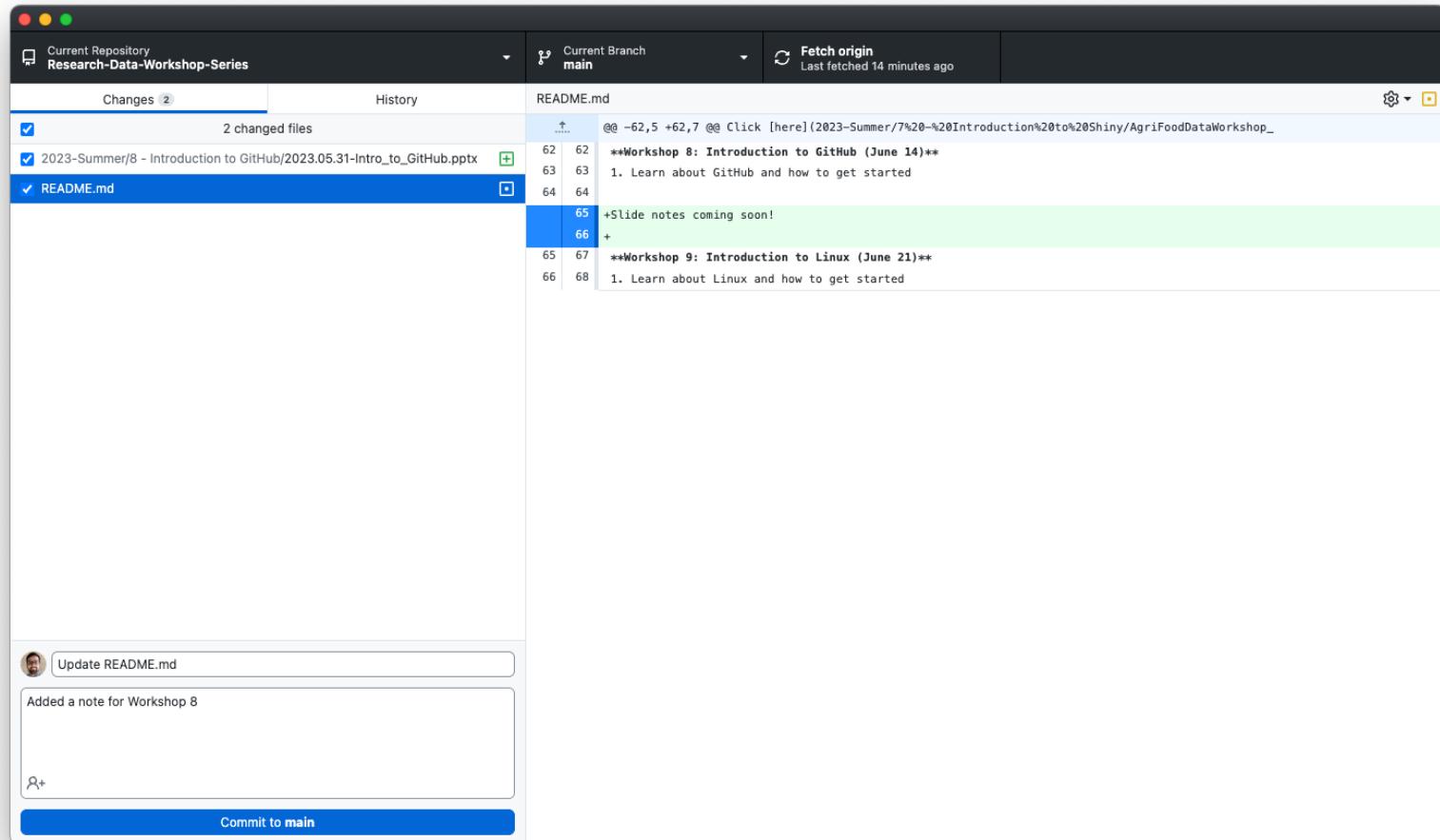
```
library(shiny)
library(tidyverse)
# Define UI for app that draws a histogram ----
ui <- fluidPage(
  # App title ----
  titlePanel(
    tagList(
      tags$b("My"),
      tags$em("cool!"),
      tags$b("Dashboard")
    )
  ),
  # Sidebar layout with input and output definitions ----
  sidebarLayout(
    # Sidebar panel for inputs ----
    sidebarPanel(
      h2("Upload your file here!"),
      fileInput(inputId = "file_input",
                label = "File Input",
                placeholder = "Nothing here yet..."),
      h2("Filter options"),
      dateRangeInput(inputId = "date_range",
                    label = "Date Filter"),
      sliderInput(inputId = "intake",

```

Version Control: A system for tracking changes (versions) – Time Machine!



Commit: A “Save” of a file version

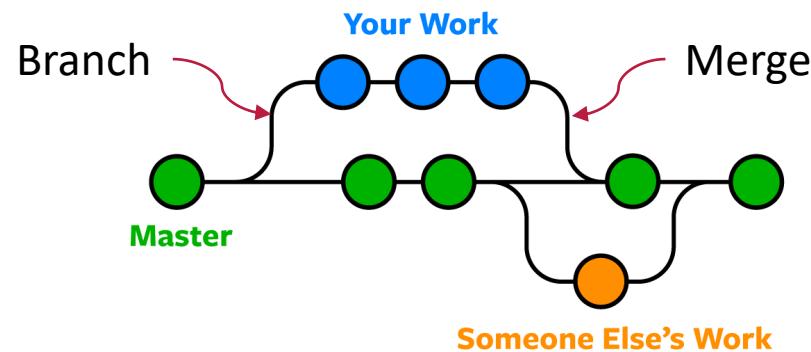


Branch / Merge: A working copy

A copy of your project (repo) at a particular point in time

Allows you to experiment with new features without affecting the working parts of your project.

You can “merge” them into your project later if/when those new features are satisfactory.



<https://www.nobledesktop.com/image/gitresources/git-branches-merge.png>

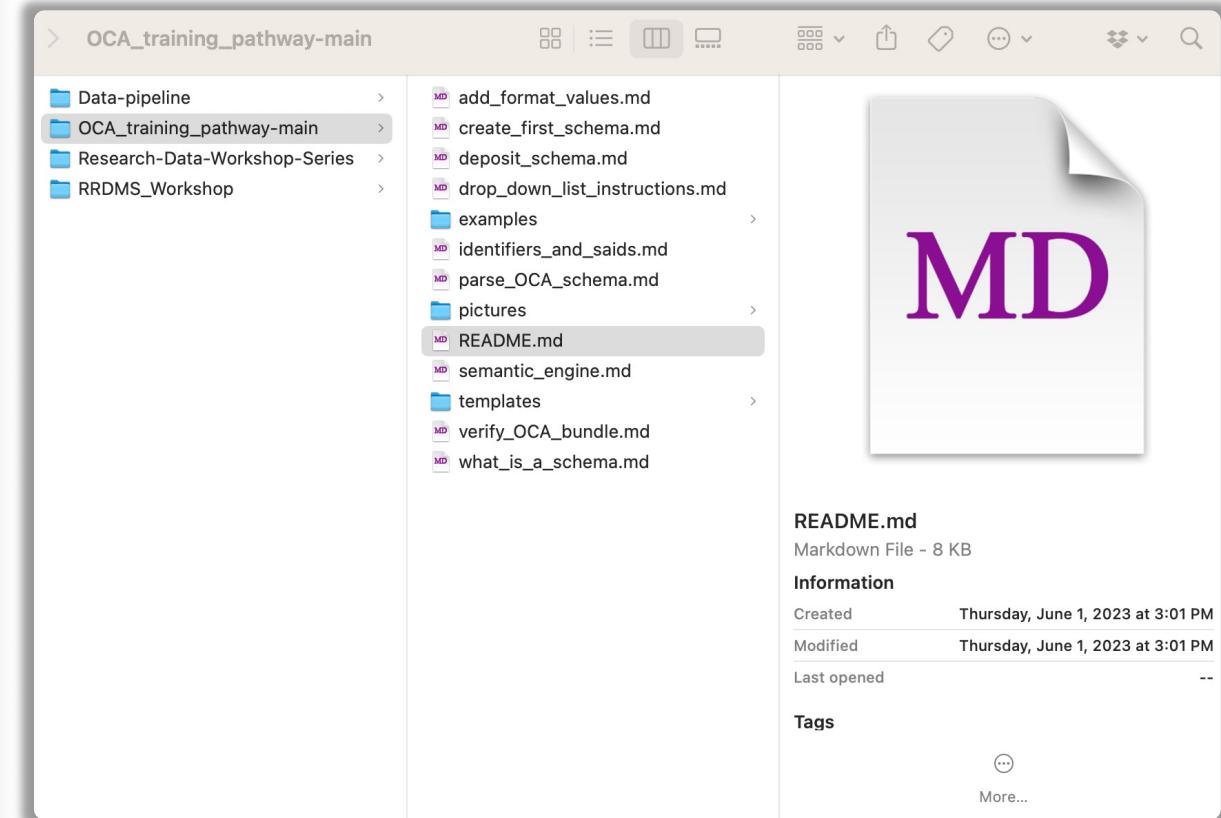
The screenshot shows a GitHub repository page for 'agrifooddatacanada/Research-Data-Workshop-Series'. The repository is public and has 2 branches and 0 tags. The main branch is the default. The staging branch contains a commit to move a data folder to 'my_app'. The README.md file has been updated. The repository has 35 commits, 2 weeks ago, and 2 months ago. There are 2 watching and 0 forks. The repository is described as having no description, website, or topics provided. It includes sections for Readme, Activity, Stars, Watching, Forks, and Report repository. There are no releases published, and a link to Create a new release is provided. The Packages section shows no packages published, with a link to Publish your first package. The Contributors section lists 2 contributors: lucas-alcantara and carlyh-micb.

Fork: A copy from a branch on GitHub

The image consists of two side-by-side screenshots of a GitHub repository page. The left screenshot shows the main repository page for 'agrifooddatacanada/OCA_training_pathway'. At the top, there is a modal window titled 'Existing forks' showing a list with one item: 'lucas-alcantara/OCA_training_pathway'. Below this, the repository's content is listed, including files like README.md, examples, pictures, templates, and various schema files. The right screenshot shows the forked repository 'lucas-alcantara/OCA_training_pathway'. It displays the same list of files and a message at the top stating 'forked from agrifooddatacanada/OCA_training_pathway'. Both screenshots are taken from a web browser with a light green header.

Clone: A copy from a branch on your local machine

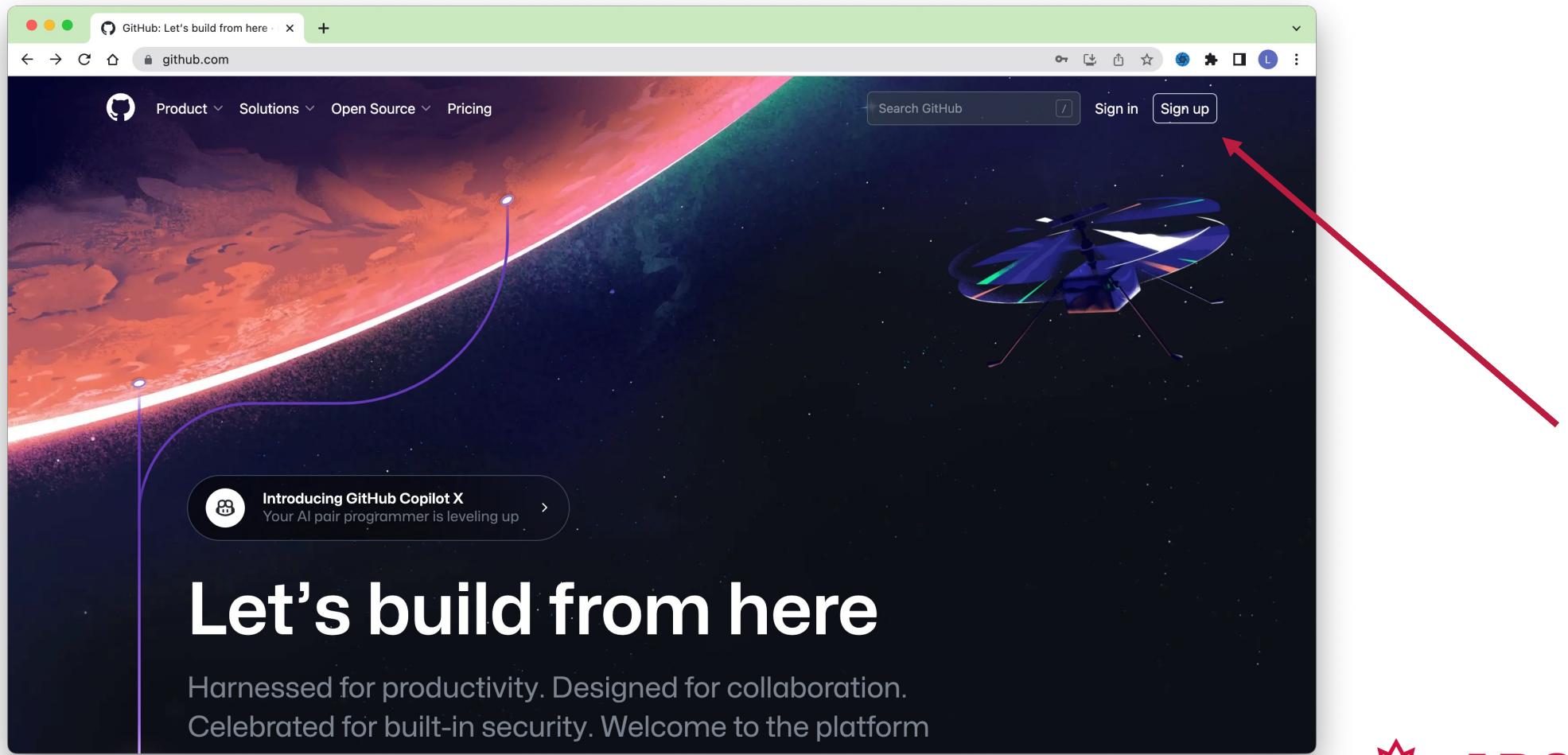
The screenshot shows a GitHub repository page for 'agrifooddatacanada/OCA_training_pathway'. The 'Code' dropdown menu is open, and the 'Clone' option is highlighted with a red box. The 'Clone' section includes options for HTTPS, SSH, and GitHub CLI, along with a URL: https://github.com/agrifooddatacanada/OCA_training_pathway. Below this, there are links to 'Open with GitHub Desktop' and 'Download ZIP'.



**Let's have some
practice!**

Sign up for a free account on GitHub

<https://github.com>



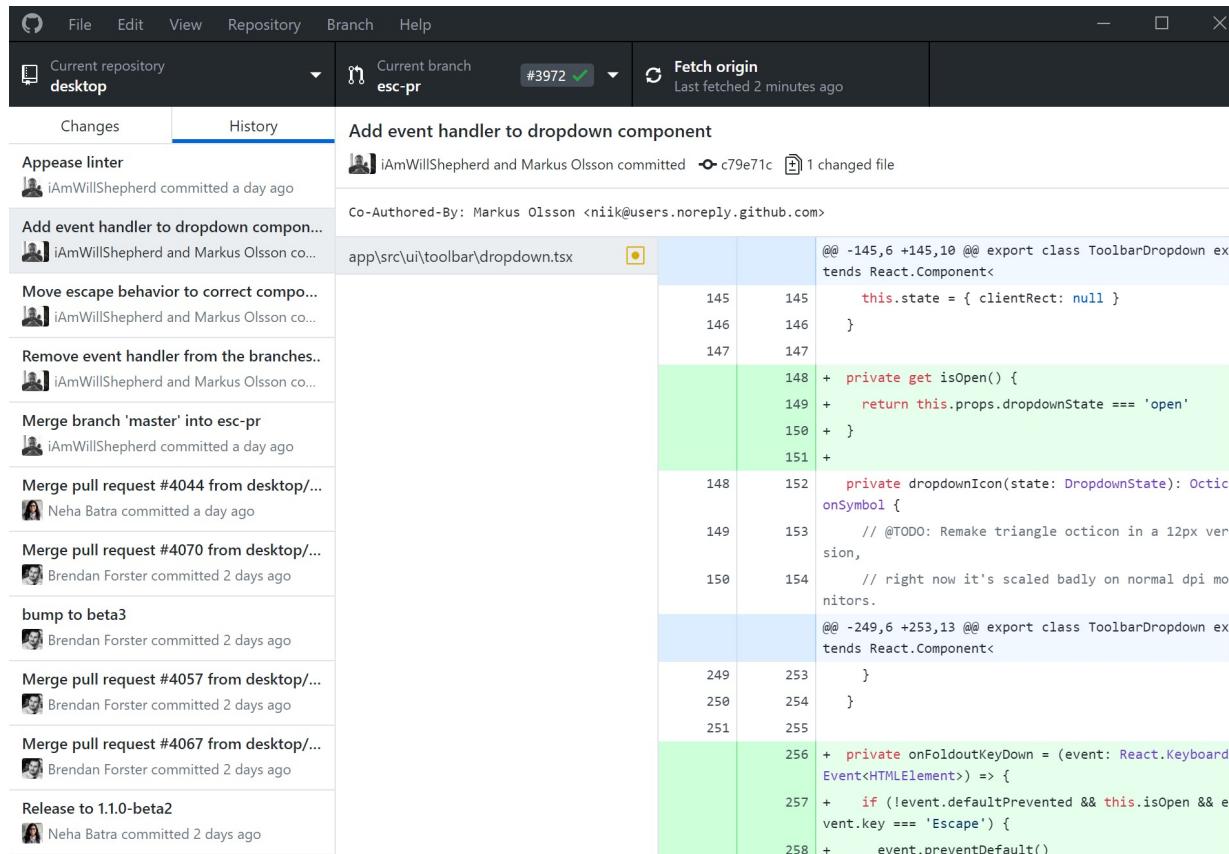
GitHub Skills

<https://skills.github.com/>

The screenshot shows the GitHub Skills website at <https://skills.github.com/>. The page features a large green header bar with the GitHub logo and the word "Skills". Below the header, there's a main title "GitHub Skills" and a subtext: "Learn how to use GitHub with interactive courses designed for beginners and experts." A prominent green button labeled "Start with *Introduction to GitHub*" is visible. To the right, there's a large, friendly-looking GitHub cat icon surrounded by colorful icons representing various GitHub features. The main content area is titled "Our courses" and includes sections for "First day on GitHub" and "First week on GitHub". Each section contains three cards: "Introduction to GitHub" (Get started using GitHub in less than an hour.), "Communicate using Markdown" (Organize ideas and collaborate using Markdown, a lightweight language for text formatting.), and "GitHub Pages" (Create a site or blog from your GitHub repositories with GitHub Pages.). A red arrow points from the bottom left towards the "Start with" button.

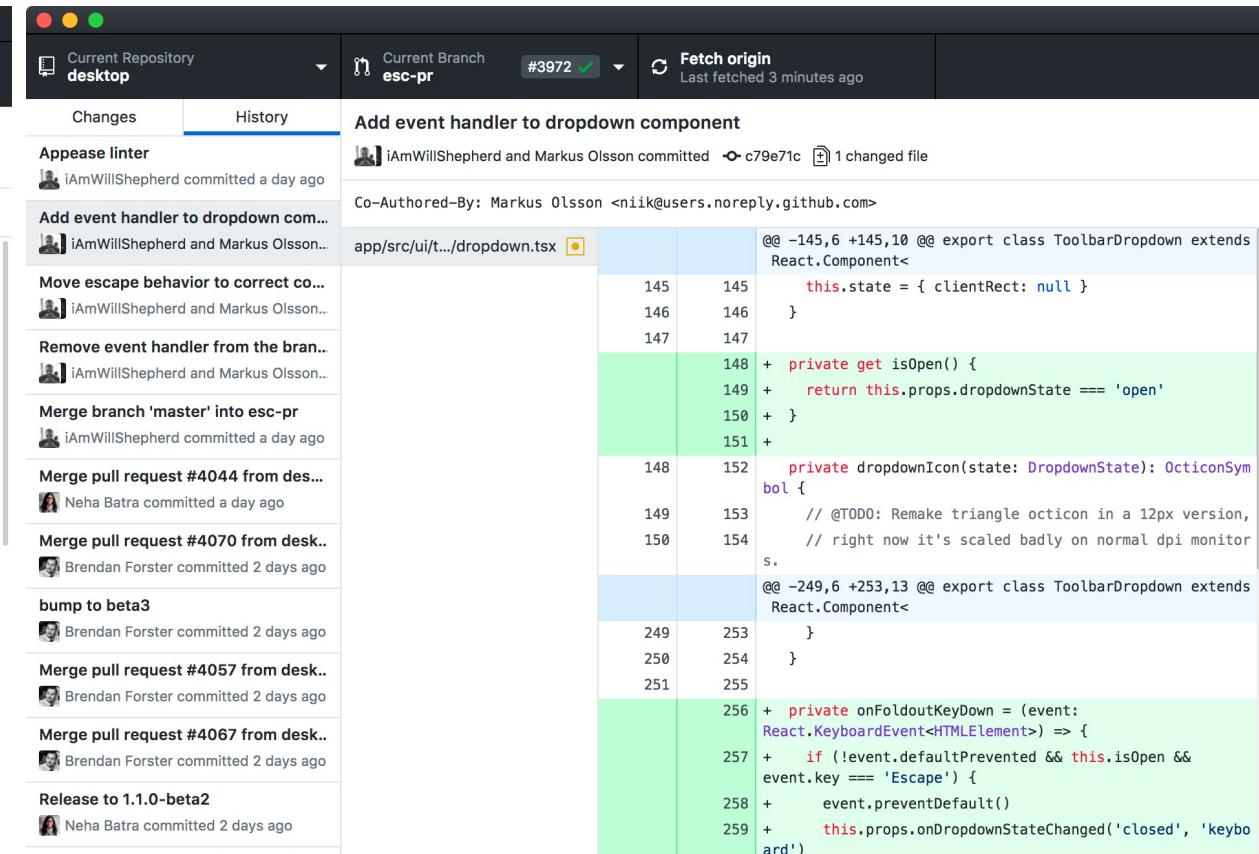
GitHub Desktop

<https://desktop.github.com/>



This screenshot shows the GitHub Desktop application running on Windows. The interface includes a top navigation bar with File, Edit, View, Repository, Branch, and Help. Below the navigation is a header with "Current repository desktop" and "Current branch esc-pr #3972". A "Fetch origin" button indicates the last fetch was 2 minutes ago. The main area displays a pull request titled "Add event handler to dropdown component" by "Appease linter". The commit message is "iAmWillShepherd committed a day ago". The commit details show a file named "app/src/ui/toolbar/dropdown.tsx" with changes starting at line 145. The diff shows the addition of a private isOpen() method and its usage in the dropdownIcon() function. Other commits visible in the list include "Move escape behavior to correct compo...", "Remove event handler from the branches..", and "Merge pull request #4044 from desktop/...".

Windows



This screenshot shows the GitHub Desktop application running on macOS. The interface is similar to the Windows version, with a top navigation bar and a header showing "Current repository desktop" and "Current Branch esc-pr #3972". The "Fetch origin" button indicates the last fetch was 3 minutes ago. The main area displays the same pull request and commit history as the Windows version. The code diff shows the same modifications to the "dropdown.tsx" file, including the addition of the "isOpen" method and its implementation in the "dropdownIcon" function. The commit messages and overall layout are identical to the Windows version.

MacOS

THANK YOU!

Questions?

Feel free to reach me later at
lucas.ma@uoguelph.ca



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