## DS 4200 Homework1 – Setup the tools

**Due date**: Jan 26<sup>th</sup>, 2024

In this assignment you will work through several examples and resources on the Mozilla Developer Network (MDN) in order to learn the basics of web development. Try to update the example by implementing your own work.

If you struggle a lot with this assignment or feel lost, seek additional web development training outside of class ASAP and come to office hours for help.

### Part 1 (30 points)

Work through the MDN Getting Started with the Web module.

- Installing basic software
  - Web browsers: We recommend <u>Chrome</u> or <u>Firefox</u>
  - o Graphics Editors: We recommend GIMP
  - Version control system: We are using GitHub classroom. On Windows, TortoiseGit provides a nice user interface to Git.
  - o Install Python to use a local web server.
  - Install <u>Altair</u> on Python
  - Install a html/css/js editor, you can choose from
    - VS Code
    - Sublime
    - Atom
    - Brackets (by Adobe)
    - Notepad++
- What will your website look like?
  - Write a list of your website contents.
  - Write a short paragraph of your bio.
  - Find two images you may want to include on your website.
- Dealing with files
  - Set up the basic structure for your website, including index.html, image folder, styles folder and scripts folder.
- HTML Basics
  - Work through the tutorials and take a screenshot on your index.html.
  - Remember to commit and push your work to GitHub.
- CSS Basics
  - Work through the tutorials and take a screenshot on your style.css.
  - Remember to commit and push your work to GitHub.
- JavaScript basics
  - Work through the tutorials and take a screenshot on your main.js.

- o Remember to commit and push your work to GitHub.
- Publish your website through GitHub
  - Read the general introduction on publishing your website.

### Part 2 (70 points)

Now, update the website with your own materials. Your website needs to include:

- A title of your name (5 points)
- A short bio of yourself (10 points)
- A list of contents you want to include on the website later. (5 points)
- Two images (please make sure the images are appropriate to show to the public) (10 points)
- Customize the default color (both font color and background color) and font. (20 points)
- At least two types of meaningful interactions (can be a button to click to show a picture, input asking for names, click to show a message/alert, etc.) (20 points)
- The website does not need to be perfect. Please focus on practicing code writing.

#### **Submission instructions:**

In a file, include all three screenshots from HTML Basics, CSS Basics and JavaScript Basics. (10 points for each). Your screenshots should have part of your desktop as well as the clock. Also include the link of your GitHub page for TAs to view your part 2 work. Submit the file to Gradescope.

# **Further Reading for those interested:**

MDN Learning HTML
MDN Learn to Style HTML using CSS