

Assignment 8 - Implementing a Web Tool Project

Link to Github: <https://github.com/GinnyZhao/pui-final-app>

Link to published site: <https://peaceful-curie-1fded1.netlify.app/>

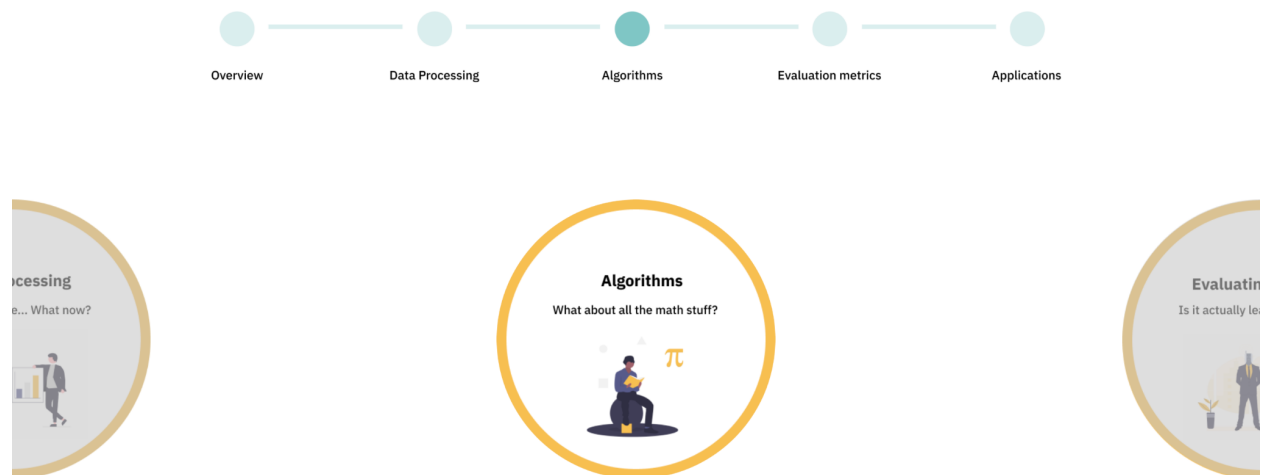
Overview

My project is an interactive and informative website that introduces basic machine learning concepts. Information covered in the website includes machine learning overview, data processing, common algorithms, evaluation metrics, and application. Since the topic is very technical, I reduce the amount of text as much as possible and utilize pictures to illustrate the concepts. The target audience is anyone interested in the topic of machine learning but has no prior experience with it. I hope my website will be a starting point for them to get to know more about the area.

(5 pts) Part 2: Use a bulleted list to describe how a user would interact with your website. For each item in your list, say

- the interaction type you implemented
- how I should reproduce it (i.e. click on X on page Y, or scroll on page X, etc.)

How to interact with the website



- There are three buttons on each page (except the overview and the application page)
- Click on the left half-circle will go back to the previous step
- Click on the right half-circle will go forward to the next step

- Click on the middle circle will go to the details page of that step
- When on the details page, click on the blue “back” button at the bottom left will go back to the home view.

Tools used

a. React.js

- **Why:** Since some of the elements on my website are present throughout the pages (e.g. The top navigation bar and the footer), regular Html would require me to write a lot of duplicate codes and would render the same elements every time I go to a new page. Therefore, I decided to use React.js as it will only rerender the part that is changed and keep elements such as the navigation bar and footer untouched.
- **How:** I created a react app and created components such as “navbar”, “overview”, “details” and “footer” and connect all the components together in the app.js file.

b. Bootstrap

- **Why:** Since the website needs to be responsive, I used bootstrap column layout to dynamically change the column number based on breakpoints.
- **How:** I added the bootstrap library into my react app. Every time I want to create column layouts, I followed the bootstrap syntax, such as “col-sm-6 col-lg-4”.

Part 4: Describe how you iterated on your HW7 mockups, if at all, including any changes you made to your original design while you were implementing your website. (2-4 sentences max)

Changes made after HW7

In my original design, the evaluation metrics page only contains texts. For my final website, I made a table demonstrating the confusion matrix as well as the concept of precision & recall.

Challenges

The biggest challenge I encountered is that implementing animations in react is harder than I thought. I spent a lot of time trying to figure out how to implement a slide-in effect but did not make it work in the end. Therefore, the animation is pretty limited on my site. I only managed to implement several on hover effects.