

05430 - Programming Usable Interfaces

FP4

Huarui Lai

Part 1

The purpose of my project was to create a personal portfolio website to showcase past projects, internships, my resume, and contact information. My previous portfolio was made with Wordpress and it didn't look the way I would've wanted it to. My goal for this portfolio was to create a personalized website that not only showcased my work, but also elements of my personality. I wanted to integrate multiple web pages throughout the site—a home screen, distinct pages for each project, as well as a page “About Me.” I tried to make it interesting and engaging by drawing and implementing my own GIFs, balancing text with wireframes and other images, including buttons for easier navigation, and having aesthetically pleasing visuals to keep the user-focused. My target audience is mainly company recruiters and hiring managers.

Part 2

1. Navigate to the homepage (index.html)
2. To view the resume, press the “Resume” tab on the upper right-hand side of the navigation bar on any page throughout the site—this opens the PDF in a new tab
3. To view the “About Me” page, press the “About Me” tab on the upper right-hand side of the navigation bar on any page throughout the site
4. To view projects, scroll down below the animated GIF on the homepage
5. Hover over project images if you're on a desktop to view a short project description
6. To read about a project in more depth, click on the project image to be brought to that project's specific page
7. Scroll vertically on project pages to read about my role in each project
8. When you're on a project page, you can navigate to the previous or next project by scrolling to the bottom and pressing the “previous” or “next” button
9. At any point, to return to the homepage, press the “H.” logo on the upper left-hand side of the navigation bar
10. To be redirected to any of my contact pages or social media, click the logo/text at the bottom of each webpage (in the footer), and a new tab will open corresponding to the clicked link

Part 3

I used Anime.js. I decided to use it because it was a popular non-React based animation library I could use to bring some life to my website. The documentation for the library was pretty readable and it seemed like there were a lot of resources for the library online, so I thought it would be easier to debug this library than a niche animation library. I used Anime.js on my index.html page to animate each of my projects. When scrolling, each project image/text fades in (when user scrolls down) or out (when user scrolls up). This gives a nice transition effect to the page. While this library doesn't add any logic-based functionality to my website, it makes the

delivery of information from the system to user a lot smoother and creates a cleaner transition to the presentation of information.

I also used Knopf.css to animate the “previous” and “next” buttons at the bottom of each project page. I chose to use it because it integrated well with my existing website and was also non-React based. The library allowed color to seamlessly flow in when the user hovered on either the “previous” or “next” button

Part 4

My first Figma prototype had a lot more tabs in the navigation bar compared to my final project. I ended up merging a lot of the core themes/functionalities of my initial prototype into elements of my final project (e.g. showing skills in my resume at the end instead of having a webpage dedicated to “Skills”). I also played around quite a bit with image borders and the visual image/text layout on my “About Me” page, since I wanted to make that webpage more creative than my “Project” pages. I also ended up integrating a hand-drawn GIF from Procreate on my front page to add life and a sense of character and creativity to my portfolio. Finally, I fleshed out a consistent design for each of my project pages and added previous/next buttons to each page on my final website.

Part 5


I experienced a few challenges initially with flexboxes and media queries—since I’ve been designing for desktop and mobile basically from the start. I had quite a challenge figuring out my mathematical formula for fading objects in and out with Anime.js and ended up going to multiple sessions of office hours to figure it out. I also ran into a few issues when trying to add animations to my “previous” and “next” buttons on each project page, but ended up finding a css library that integrated pretty well with my existing site. Finally, I wanted to implement a preloading screen before users loaded my website, but ran into a lot of layout and technical issues, so that’s an area I’d want to further explore moving forward.

Testing Responsiveness

My website is responsive for all screen sizes but you can test on laptop (mine is 2736 x 1824) and mobile (iPhone 12 Pro: 390 x 844).

WAVE Tool Check Summary

index.html page



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Summary


Summary

Details


Reference

Structure


Contrast

 0


Errors

 0


Contrast Errors

 1


Alerts

 14

Features

 4


Structural Elements

 0

ARIA

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☒  1 Alerts


☐ 1 X Link to PDF document

☒  14 Features

☐ 3 X Alternative text

☐ 10 X Linked image with alternative text

☐ 1 X Language

☒  4 Structural Elements

☐ 1 X Heading level 1


☐ 1 X Unordered list

☐ 1 X Header

☒ 1 X Navigation

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Google.html



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Errors

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Contrast Errors

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Alerts

 17

Features

 5


Structural Elements

 0

ARIA

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☒  1 Alerts


☐ 1 X Link to PDF document

☒  17 Features

☐ 10 X Alternative text

☐ 6 X Linked image with alternative text

☐ 1 X Language

☒  5 Structural Elements

☐ 1 X Heading level 1

☐ 1 X Ordered list

☐ 1 X Unordered list

☐ 1 X Header

☒ 1 X Navigation

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Jamjelly.html







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Summary

Summary Details Reference Structure Contrast

 0 Errors	 0 Contrast Errors
 2 Alerts	 17 Features
 5 Structural Elements	 0 ARIA

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Details

Summary Details Reference Structure Contrast

- ☒  2 Alerts
 - ☐ 1 X Link to PDF document
 - ☐ 1 X YouTube video
- ☒  17 Features
 - ☐ 10 X Alternative text
 - ☐ 6 X Linked image with alternative text
 - ☐ 1 X Language
- ☒  5 Structural Elements
 - ☐ 1 X Heading level 1
 - ☐ 1 X Unordered list
 - ☐ 1 X Inline frame
 - ☐ 1 X Header
 - ☒ 1 X Navigation

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Pamelas.html







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Summary

Summary Details Reference Structure Contrast

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 1 Alerts	 22 Features
 9 Structural Elements	 0 ARIA

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

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Styles: OFF ☒ ON

Details

Summary Details Reference Structure Contrast

- ☒  1 Alerts
 - ☐ 1 X Link to PDF document
- ☒  22 Features
 - ☐ 15 X Alternative text
 - ☐ 6 X Linked image with alternative text
 - ☐ 1 X Language
- ☒  9 Structural Elements
 - ☐ 1 X Heading level 1
 - ☐ 3 X Ordered list
 - ☐ 3 X Unordered list
 - ☐ 1 X Header
 - ☒ 1 X Navigation

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Gaugeme.html







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Summary

Summary Details Reference Structure Contrast

 0 Errors	 0 Contrast Errors
 1 Alerts	 11 Features
 5 Structural Elements	 0 ARIA

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Details

Summary Details Reference Structure Contrast

- ☒  1 Alerts
 - ☐ 1 X Link to PDF document
- ☒  11 Features
 - ☐ 4 X Alternative text
 - ☐ 6 X Linked image with alternative text
 - ☐ 1 X Language
- ☒  5 Structural Elements
 - ☐ 1 X Heading level 1
 - ☐ 1 X Unordered list
 - ☐ 1 X Inline frame
 - ☐ 1 X Header
 - ☒ 1 X Navigation

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Internet.html







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Summary

Summary Details Reference Structure Contrast

 0 Errors	 0 Contrast Errors
 1 Alerts	 18 Features
 7 Structural Elements	 0 ARIA

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Details

Summary Details Reference Structure Contrast

- ☒  1 Alerts
 - ☐ 1 X Link to PDF document
- ☒  18 Features
 - ☐ 11 X Alternative text
 - ☐ 6 X Linked image with alternative text
 - ☐ 1 X Language
- ☒  7 Structural Elements
 - ☐ 1 X Heading level 1
 - ☐ 3 X Ordered list
 - ☐ 1 X Unordered list
 - ☐ 1 X Header
 - ☒ 1 X Navigation

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Infosystems.html




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Summary







 Summary


 Details

 Reference


 Structure

 Contrast

 0 Errors	 0 Contrast Errors
 1 Alerts	 17 Features
 4 Structural Elements	 0 ARIA

 View details >

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
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
Styles: OFF ☒ ON


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
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 Details


 Reference

 Structure


 Contrast

☒  1 Alerts

- ☐ 1 X Link to PDF document

☒  17 Features


- ☐ 10 X Alternative text
- ☐ 6 X Linked image with alternative text
- ☐ 1 X Language

☒  4 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 1 X Unordered list
- ☐ 1 X Header
- ☒ 1 X Navigation

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Summary







 Summary


 Details

 Reference


 Structure

 Contrast

 0 Errors	 0 Contrast Errors
 2 Alerts	 26 Features
 4 Structural Elements	 0 ARIA

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Details


 Summary

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 Contrast

☒  2 Alerts

- ☐ 1 X Redundant link
- ☐ 1 X Link to PDF document

☒  26 Features

- ☐ 21 X Alternative text
- ☐ 4 X Linked image with alternative text
- ☐ 1 X Language

☒  4 Structural Elements

- ☐ 1 X Heading level 1
- ☐ 1 X Unordered list
- ☐ 1 X Header
- ☒ 1 X Navigation

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