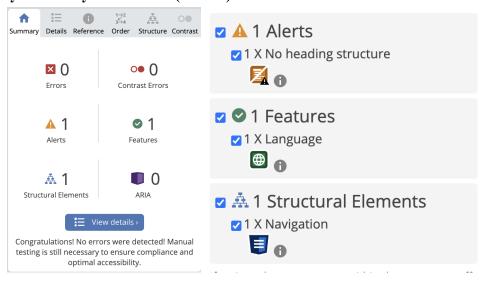
Jean Park Programming Usable Interfaces Final Project

FP4 Write Up

Screen Sizes:

- 1400 x 820 (Browser)
- 390 x 844 (iPhone 12 Pro)

Accessibility Summary and Details (WAVE):



Part 1:

The purpose of this website is to create a fun, interactive portfolio/personal website to share some of the work I have done. Since I already have a GitHub page that I have been using for data science and analytics, I was hoping to create a creative portfolio where I could display myself. Therefore, I decided to have fun and took a different avenue by displaying a 3D model of my body on my portfolio site.

Keeping the information rather simple and concise, I was able to share my work experiences, some UX research projects, GitHub for data science, and some personal information. More specifically, I was able to show some of my videos to explain the process through the user research/design projects that I was unable to show through my GitHub for data science. The viewers can also easily access my GitHub and resume with external links. I made sure that my portfolio shared the important aspects of education/career without putting too much strain on their cognitive load and working memory.

My portfolio website is interesting because it displays an interactive 3D LiDAR model of my body. Since most students tend to use photos to display on their profile, the 3D model would be eye-catching and entertaining for the viewers. Furthermore, since I removed the head, it makes my model more interesting and mysterious, making viewers want to explore more about me.

The target audience would be creative recruiters. I feel like I have never come across a portfolio website or in general that displays 3D models of a person other than fashion websites. The creative aspect of this website would keep the recruiters interested and more inclined to learn more about me.

Part 2:

- Interacting with the 3D model on the landing page
 - Interaction Type: Model Movement
 - Reproduce: Click, hold, and drag around the screen with the model to view the 3D model from different angles.
- Visiting the Work page
 - Interaction Type: Navigation
 - Reproduce: Click on the word "Work" at the top of the page
- Visiting the Projects page
 - Interaction Type: Navigation
 - Reproduce: Click on the word "Projects" at the top of the page
- Visiting the GitHub page
 - Interaction Type: Navigation
 - Reproduce: Click on the word "GitHub" at the top of the page
- Visiting the Information page
 - Interaction Type: Navigation
 - Reproduce: Click on the word "Information" at the top of the page
- Visiting the Resume document
 - Interaction Type: Navigation
 - Reproduce: Click on the Google Doc logo below on the Information page
- Visiting the Landing page
 - Interaction Type: Navigation
 - Reproduce: Click on the name "Jean Park" at the top of the page

Part 3:

- Three.js library GLTFLoader
 - Since GLTFLoader allows you to load both .glb and .gltf models, I chose this tool to open my model. This allowed me to load my model from Polycam and made it statically presentable on the portfolio site.
 - I used this tool to load my .glb 3D model from Polycam to my portfolio site. I also utilized the perspective camera and spotlight functions from the Three.js library to make the 3D model more visible and presentable.
 - This added the main feature I wanted for my portfolio site. This tool allowed me to present the 3D model to make it noticeable to the viewers.

• Three.js library - OrbitControls

- To make the 3D model interactive, I chose this tool from the Three.js library. As
 the name suggests, this tool gave me orbit controls around my 3D model to
 provide interactivity for the viewers.
- o I used this tool to turn my static 3D model into an interactive 3D model. I utilized the orbit controls to give viewers good, all-around control of the 3D model.
- It adds the interactivity to the portfolio site. Since my goal was to create an "interactive portfolio" this tool allowed me to accomplish the main goal of the project.

Google Font API

- Since I received feedback that my font sizes for the navigation bar were the same,
 I decided to use the Google Font API to find different fonts to use. Since there
 were a lot of different fonts, I was able to have access to several, pretty fonts to
 use for decoration.
- I used this API to make the titles on my navigation bar more discernable and prettier. Since I was told that having the same font for the navigation bar makes it difficult for the viewers to discern which are information tabs, I was able to make it clear and separate using the API.
- It allows the viewers to easily discern what tab is for the home page and what tabs are for information. Furthermore, it adds more design to make the portfolio site look more complete.

Bootstrap

To make my portfolio site responsive for different screen sizes, I chose this
framework. Since Bootstrap was recommended in the final project goals
document, I decided to use this framework to have my portfolio site available for
iPhone 12 Pro dimensions.

- I used Bootstrap to make my navigation bar more contained through the two
 different screen sizes: regular browser size and iPhone 12 Pro. I was able to utilize
 this framework to have the navigation bar uncorrupted when accessed through a
 mobile phone.
- It provides responsiveness for viewers accessing the portfolio site either in a browser or a mobile phone (iPhone 12 Pro). It allows the navigation bar to be placed neatly in both screen sizes without extending to the right.

Polycam

- To create a 3D model without any blender experience, I chose Polycam to scan
 my body with a phone camera. This app allows me to download the scan in .glb
 format, which could be loaded by Three.js.
- I used the LiDAR scan feature on Polycam with the help of a friend to film my body 360 degrees to produce a 3D model. Since there were limitations to Polycam's quality, we had to experiment a lot of times to get a satisfactory scan.
- This app created the 3D model, which is the basis of my portfolio site. Without Polycam, I would have had a difficult time generating a 3D model of myself in the first place to load on the landing page of my project.

Part 4:

At the start of the project, I had two prototypes with different styles of organization for the portfolio site. While the first prototype had tabs in the navigation bar that led to a subpage with the 3D model still there, the second prototype led to a separate page without the model. I decided to expand from the second prototype since I received feedback that maybe keeping the 3D model for all pages is distracting for the viewers.

A specific change I made while I was implementing the portfolio site was moving the navigation bar from the right side of the screen to the top. This change supported a top-down design since viewers would be more familiar with the navigation bar at the top. Another change I made was centering the 3D model instead of having it in the left corner. This allowed more room for interactivity and diverted focus on the model.

Part 5:

The main challenge I faced was catching COVID in the middle of the project. This became the root of most of my problems since I had to figure out all the libraries and API implementations needed for my project by myself. Since I did not have previous experience with using JavaScript libraries and APIs, I had a difficult time learning how they work and making sure they work correctly.