

Hana Donnelly – Lighthouse Results

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Performance – 84

Image sizing: I received points off for image sizing. I believe this could easily be fixed with screen-size-based sizing, like in Zybooks Ch. 6. This would greatly improve the loading time of the website, and decrease its sizing demand, using less data.

Image formatting: Lighthouse recommends I use next-gen image formatting. This means using images saved in WebP and AVIF formats, rather than PNG and JPG. This would also improve loading speeds and decrease the size of the website.

Explicit width and height: The image above the navigation bar (usc_logo.svg) and the main image on the index page (students.jpg) do not include an explicit height and width.

USC_logo.svg has a stated width of 300px, but no stated height.

Students.jpg only has a stated width of 100%.

Short cache life: The cache for this website is short, which decreases the performance of repeat visits. This is especially important in loading the images on this website, which can be resource-heavy, especially for users on weak cellular or Wi-Fi connections.

Chaining length: Lighthouse recommends shortening the requests chain to improve loading speeds. Lighthouse says that 3 of the 5 chain requests are font requests, which I'm sure could be deferred to later if needed.

High Request Counts: It's recommended that this website use a budget.json file to better allocate website resources to its requests.

Avoid Large Layout Shifts: There are a couple of drastic website layout differences (centering text, etc.) that Lighthouse believes could impact cumulative layout shift (CLS). By fixing some of these elements to have a more consistent layout, I could achieve a lower CLS score, and make the website less likely to experience layout issues.

Accessibility – 97

Headings Not In Descending Order: On the Index page, the website jumps from H1 to H3, which can cause users with assistive technology to experience issues. A workaround for this may be using an H2 tag at this location, and using an ID to style it differently from other H2 text.

Best Practices – 100

Lighthouse found no vulnerability to XSS attacks due to cross-site scripting.

SEO – 92

No meta description: I did not include a meta description in this website. As I am not concerned about the searchability of this website, this is not an issue for this project. Though this would certainly be an issue on other websites that *need* to be found through search engines.

PWA

We are not focused on these for the project, though the following are recommendations from Lighthouse on functionalities to add for progressive web design:

- Service worker for increased functionality (offline, add to home screen, push notifications)
- Splash screen (“high quality experience when users launch your app from their homescreens.”)
- Address bar theme color (<meta name= “theme-color”>
- Not optimized for mobile screens (Viewport is 533px and window size is 360px)
- Apple Touch icon for Apple users adding the website to their home screen.
- Maskable icon