

Sarah Chen  
05-430 Programming Usable Interfaces  
Final Project

**Site Link:** <https://sarahche.github.io/final-project/>

(Images are linked under the *assets* folder, and other files (html/ css/ js) are placed in the *site-files* folder inside the *assets* folder)

## Write-Up

- 1) My site is a portfolio site that demonstrates a few of my projects from previous and current design classes. It is intended to showcase my work in a professional manner, while also showing off the coding skills that I have developed over the semester in PUI. Not only will there be a description and documentation for each project, there are also smaller animated and interactive features on the site to keep the user engaged. Rather than having flashy animations, it is used more subtly so that the attention remains focused on the design work displayed, which is the primary function of a portfolio. This includes subtly changing the background color, and animating content when it loads.

The works showcased in the portfolio cover different mediums and problems spaces. The dashboard project focuses on creating and designing a dashboard that fits the needs of our personas, complete with condensing data into more visually appealing and useful forms. It also includes an interactive component that allows the users to switch between screens via a control that we also designed.

The poster design project focuses on user research and interviews, then gathering the insights to create a solution based on user needs. While the solution doesn't have to be realistic, it is a good exercise in user research, ideation, and visual design.

This portfolio is not only aimed towards potential employers, but also towards my peers, both in and out of PUI. I have personally drawn inspiration from others' portfolios, and I would hope that mine is able to one day provide inspiration for other designers. I can also use this portfolio to show my non-design friends what I have been working on.

### 2) Website Interaction

- Upon first loading the site, there will be an animation that gives a short introduction to who I am and what this project is about. This is merely a visual animation that the user can enjoy. To proceed to the portfolio, there will be a "continue" button that appears when the animation is finished (about 20 seconds from page load/ start of the animation, and 1-2 seconds after the animation is complete).
- On all pages (except for the first typing animation page):
  - There will be a navigation bar. The name (Sarah Chen) will take you back to the first animation typing page. The "design" tab will take you to the project home page, where the project links and slideshows reside. The

“about” tab will take you to a short paragraph about the designer (me). Hovering over the link will change the text color from a dark grey to a blue similar to the background.

- There will be a page-load animation that subtly animates content for the page sliding into place (no user interaction needed).
- Home Page
  - There is also a subtly animated, color shifting background on the home page (no user input needed). The color shifts from a purple-blue to nearly completely white, and is looped. This rewards users that stay a bit longer to check out the slideshows.
  - There are two slideshows: one for the dashboard project, and one for the poster design project. Clicking on the left or right arrows will change the image, so you can see other iterations or screens of that design. After the first click, the slides should shift automatically. The project’s images, heading, and subheading are clickable links that take you to the project page.
- About Page
  - This consists of a simple, short paragraph about me and my values as a designer.
- Dashboard/ Poster Design Project Pages
  - In the project page, there is the title of the project, followed by project-specific details such as:
    - Scope
    - Tools
    - Roles
    - Team
    - Project Description
  - Then, the documentation for the project is laid out and categorized into steps, with a short description of each. Some steps also have supplementary images that help the user visualize the design.
  - There is a progress scroll bar on the right side of the page. How far the bar reaches on the page depends on how far you have scrolled down. It is also subtly animated with slight color shifts (blue/green/white) that match the color scheme for the rest of the site, but doesn’t clash.

### 3) External Tools

- Bootstrap: I used bootstrap in order to help create a responsive website. It was the simplest and most recommended method of doing so. While I linked the bootstrap url as a script, I also used a variety of elements to improve responsiveness, such as col-sm to help my grid items stack on a smaller screen.
- Bootstrap Carousel: When I was looking for ways to implement a working slideshow that could be responsive, I stumbled upon Bootstrap Carousel. This built in feature took away my worry about resizing and repositioning images based on screen size. To use it, I used the “carousel slide” class in my container

div, as well as the “item active” class for the first image, and the “item” class for the other images. With the basic function in place, I styled it with CSS.

- Typelt JS Library: I chose to use Typelt because it simplified the typing animation I wanted to implement. The code for it was more intuitive and less confusing to me than other typing animation tutorials I had stumbled upon. To use it, I linked the library to my index.html file, then specified where I wanted the typing animation to occur (in a paragraph element). From there, I was able to use the class name in the typelt function, then specify which animations I wanted to use.
  - CSS Animations: I chose to use CSS animations because none of my intended animations were complex, so I decided to keep it in CSS. I primarily used @keyframes and ‘animation’ in areas such as the color-shifting background on the home page, and the scroll bar.
- 4) Some changes I made to my HW7 iteration, included animation and web-specific aspects because I used Figma to make static prototypes, and because there are some aspects of web browsers (like scrolling and responsiveness) that I hadn’t thought about; this included the animated backgrounds and scroll bar. I adapted some of my original plans, such as including a new screen for the typing animation to show the full words for some acronyms (HCI, PUI, etc.) rather than having the acronyms “spin out”. I also removed the mini-game idea, because I felt like it didn’t fit with the more professional atmosphere I wanted to establish; as a result, I emphasized and made the typing animation more important to make up for the loss.
- 5) Challenges I encountered on this project were unexpected snags and errors that I needed to fix. For example, to implement my own scroll bar, I got rid of the default web scroll bars, but this also got rid of the horizontal scrolling bar and left a white bar on the bottom of my page that I needed to fix. Another challenge was also that there were different ways of doing the same thing, and choosing one can be hard. For instance, rather than using Bootstrap Carousel, I could have used fade-in and fade-out animations with CSS and javascript.

## Resources:

- Navbar:
  - <https://getbootstrap.com/docs/4.3/components/navbar/>
  - <https://www.bitdegree.org/learn/bootstrap-navbar>
  - [https://www.w3schools.com/bootstrap/bootstrap\\_navbar.asp](https://www.w3schools.com/bootstrap/bootstrap_navbar.asp)
- Typing Animation:
  - <https://css-tricks.com/snippets/css/typewriter-effect/>
  - <https://typeitjs.com/>
- Animated Background:
  - <https://www.youtube.com/watch?v=fBRzD6dwJfw>
- Carousel:
  - <https://getbootstrap.com/docs/5.0/components/carousel/>
- Scrollbar:
  - <https://www.youtube.com/watch?v=qYFkQa0Bbq0>

- Pageload:
  - <https://www.youtube.com/watch?v=zWB219zf1og>